

ALIGNMENT OF MIDDLE SCHOOL CORE TEKS WITH VISUAL ARTS TEKS

Jennifer Hartman, BFA

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APPROVED:

D. Jack Davis, Major Professor

Frances van Tassell, Minor Professor

Jeffrey L. Broome, Committee Member

Denise Baxter, Chair of the Department of Art  
Education and Art History

Robert Milnes, Dean of the College of Visual  
Arts and Design

James D. Meernik, Acting Dean of the Robert  
B. Toulouse School of Graduate Studies

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This descriptive study uses a qualitative, content analysis to examine the middle school visual arts and core Texas Essential Knowledge and Skills (TEKS) to determine the potential common learning activities that can be aligned between the two. By performing an alignment of the potential common learning activities present in the middle school visual art TEKS and the middle school core TEKS, I demonstrate that there is a foundation for curriculum integration in the Texas middle school visual arts classroom.

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## CHAPTER 1

### INTRODUCTION

Curriculum development has been an issue for as long as the field of art education has existed. Current trends focus on the development of a relevant curriculum, usually focusing more on the student and less on standards. Integrated curriculum claims to provide this type of student-centered education, but its application often falls short, particularly in a standards-based educational environment. Uncovering stumbling blocks to integrated curricula is critical to overcoming such obstacles. This study focuses on the development of a meaningful and integrated middle school art curriculum. Given the importance of integrated curriculum in today's art educational research, coupled with my personal interest in middle school art education, the purpose of this research was to investigate if the middle school core curriculum - science, mathematics, English language arts, social studies - can be aligned with the middle school visual arts curriculum.

As early as 1983, Americans have witnessed not only a drop in test scores among students, but also a drop in school attendance and in graduation rates in both high schools and colleges (National Commission on Excellence in Education, 1983). While test scores and graduation rates are no longer declining, they have not improved dramatically (U.S. Department of Education, 2009). In addition, many have observed a lack of adequate moral and social education in school, which has led to an increased popularity of private and parochial schools and the current home schooling trend (Bauman, 2002). Many curriculum theorists believe that the solutions to low attendance, tests scores, and graduation rates lie in an integrated curriculum, with interrelated content, focused in a way which enables both students and teachers to create associations that apply to their lives specifically (Beane, 1991; Dowden, 2007).

Since the standards-based curriculum seems to be failing, there is an abundance of literature promoting adaptive curricula, like the integrated curriculum, where both students and teachers are able to focus on relevant, interrelated content which enables them to make connections applicable to their own lives. Beane (1997) and Jacobs (1989) have produced successful integrated curriculum theories which are widely applied. In an interview with Jacobs, Brandt (1991) indicated that Association for Supervision and Curriculum Development surveys point to interdisciplinary curriculum, like that of Jacobs, as among the high priority concerns for teachers, and Dowden (2007) discussed the applications of Beane's theories in Australia as a way to bring relevancy to the curriculum. This push for relevant content is not new, however; over 100 years ago, Dewey (1902) urged educators to introduce the subject matter in ways that were familiar and meaningful to students. Since Dewey, our increased understanding of both the learner and of brain development has intensified the desire to bring the lives of the students and the curriculum together. There are now numerous studies attempting to prove that the brain needs these types of connections, especially connections in the arts (Begley & Hager, 1996; Gardner, 1989; Jensen, 2001), and nationally-produced documents promote the use of the arts as a meaningful part of a well-rounded curriculum (Deasy, 2002; Murfee, 1995).

With research showing the promise of the integrated curriculum and the importance of the inclusion of the arts in a well-rounded education, it would seem that schools and teachers would be lining up to get their hands on an integrated arts curriculum, but this does not appear to be the situation. In fact, while one can find a sprinkling of integrated art programs and initiatives across the country in individual schools and districts, there are no long-term, wide-spread initiatives for arts integration at the secondary level. Why is this the case? There are several hypotheses and several research questions that need to be asked to uncover all the truth. Initially,

it must be demonstrated that the arts and the core have the potential to be integrated. The research presented here is a starting point.

### Purpose of the Study

The purpose of this study was to examine the middle school visual art and core Texas Essential Knowledge and Skills (TEKS) to determine if there are common standards and common potential learning activities present in the TEKSs that can be aligned. By performing an alignment of the potential common learning activities present in the middle school visual art TEKSs and the middle school core TEKSs, I attempted to demonstrate that there is a foundation for curriculum integration in the visual arts classroom.

### Research Questions

The central focus of this study was to examine the visual art TEKS and the core TEKS with regard to potential learning activities to determine if there is an alignment between the two that can provide a basis for curriculum integration. The research questions were:

1. What are the potential common learning activities, if any, between the visual art TEKS and the science TEKS, in Grades 6, 7, and 8?
2. What are the potential common learning activities, if any, between the visual art TEKS and the mathematics TEKS, in Grades, 6, 7, and 8?
3. What are the potential common learning activities, if any, between the visual art TEKS and the English language arts and reading TEKS, in Grades 6, 7, and 8?
4. What are the potential common learning activities, if any, between the visual art TEKS and the social studies TEKS, in Grades, 6, 7, and 8?

## Definitions

*Core* is a commonly used term among teachers to refer to a group of subjects that all students must take including English language arts, mathematics, science, and social studies. It should not be confused with the core curriculum started in the late 1940s with the Eight Year Study which involved dissolution of subject boundaries (Vars, 1997).

*Curriculum alignment*, as described by Glatthorn and Jailall (2009), is the relationship of curricula as they interact with each other.

*Integrated curriculum* is a term that brings with it an amount of confusion and debate. Allan Ornstein's broad definition encompasses what educators frequently mean when they use the term. Ornstein states that, "integration refers to the linking of all types of knowledge and experiences contained within the curriculum plan" (2003, p. 243).

*Texas Essential Knowledge and Skills (TEKS)* are the state-mandated knowledge and skills that every student in Texas must know and be able to do at each grade level. They guide teachers and administrators in developing and writing curriculum (Education.com, 2010). Often teachers use the term TEK to refer to a single Texas Essential Knowledge and Skill, however this omits an important part of the acronym, the skill. When referring to the document of the Texas Essential Knowledge and Skills or an individual knowledge and skill that a student is expected to know and be able to do, the I use TEKS. When it is necessary to use the plural, the I use TEKSs.

## Theoretical Framework

The current issues facing our nation's students, coupled with the hope of a socially relevant education that promotes love of learning, concern for other people, critical thinking, self-confidence, and a commitment to democratic group processes, inform the choice for an integrated curriculum theory (National Commission on Excellence in Education, 1983; Parsons,

2004; U.S. Department of Education, 2009; Vars, 2001). Jacobs (1989) began her book, *Interdisciplinary Curriculum Design and Implementation*, with a poignant quote and statement about the current nature of school days and the curriculum that shapes them:

Mike, a 2<sup>nd</sup> grader, defines mathematics as “something you do in the morning.” Unfortunately his statement reflects an internalization of mathematics as an experience to be absorbed from 9:45-10:30am, and certainly before recess. We rarely explain to students why the school day is designed as it is. (p.1)

Perhaps educators do not explain to students why the school day is designed the way it is because they are so far removed from the design of it that they are not sure themselves. As early as 1903, Dewey was criticizing the design of the school day, asserting that the fragmented, discipline-based model made sense to the adult mind because, after having learned the material, the brain could easily look back upon the information and categorize it into disciplines. The mind of a child, however, does not see the disciplines so distinctly because they do not yet have the information needed to categorize the facts (Dewey, 1902). Additionally, Parsons (2004) asserted that integrated curriculum methods are more beneficial to students than the traditionally structured school day, but that the school day is likely structured into disciplines because it is the most economical model.

Secondary students are often subjected to a disjointed school day. It begins at 8:30 and is followed by a 20 minute homeroom class of announcements, attendance and administrative duties. Then the bell; students rush to their lockers, meet friends, get drinks, and go to the restroom if they have time; then the bell. They are late to the next class - mathematics or science - but it does not matter because the class begins with more administrative duties and announcements. When class finally begins, they are on the same page of the curriculum as the two classes down the hall; it makes no difference that four students were absent yesterday or that

the teacher was out last week; they are required to move forward and cover the material. Unresponsive to its surroundings, this “curriculum” is not adaptive, and it is not student-centered, despite its claims. As researchers, educators and consumers of research, it is critical to locate the curriculum theories being applied, in order to better evaluate and assess the effectiveness of curriculum. This begs two distinct questions: (a) Which curriculum theories are being implemented currently? and (b) What curriculum theories should we be implementing?

The foundation of curriculum theory is built on Ralph Tyler's work (Pinar, 1975). Traditional curriculum theory is represented by the work of theorists like Tyler (Tyler, 1950). Curriculum has become a systematic field of study, “yet in the eyes of the students, the process of formal education is viewed merely as subjects to be taken” (Tanner, 1995, p. 149). This definition adequately describes what happens in the typical school day across America, and, in most cases, is representational of the practical implementation of curriculum theory in the classroom, where both students and teachers view the school day as a shift from one subject to the next or one class to the next. The separate-subject approach, as Beane suggested, “follows the classical tradition that defines the teacher as master and the student as novice or apprentice” (2005, p. 81). In this way, the curriculum is necessarily teacher-centered rather than student-centered.

The major problem that traditional curriculum makes is the mistake of believing that curriculum can be encompassed within the boundaries of planned and guided experiences. There are more modern theories of curriculum that can guide schools to aid in the development of more well-rounded students. Integrated curriculum theory is a modern and relevant approach to dealing with curriculum which accepts the highly individualized qualities of education, allowing for students, teachers, and districts to adapt curriculum to their needs.

Curricular theorist Beane (1997), who has written extensively about integrated curriculum and democratic education, claims that the purpose of curriculum integration is to help students gain significant self and social awareness while organizing their knowledge and while learning how to participate in a democratic society. In *Curriculum Integration: Designing the Core of Democratic Education* (1997), he states that curriculum integration involves "the integration of experiences, social integration, the integration of knowledge, and integration as curriculum design" (p. 4). Beane (1991) used an analogy of a jigsaw puzzle to explain the benefits of his approach to curriculum. He asserted that we would not expect a person to put a puzzle together without knowing the final picture, and more importantly, most would not even want to try. In this analogy, curriculum integration is really about showing the students the whole picture. This is particularly applicable in art education where teachers are in a unique position to teach a subject that can relate to nearly every aspect of life, and, therefore, can help show students the big picture.

Beane's method is learner-centered; the students are responsible for choosing a theme that is relevant to them, and they use the instructor as a tool to help find problems and answers that fall under the umbrella of the theme, using any variety of disciplines necessary. The approach is not structured by any particular subject and can evolve at any time. His approach focuses on the development of the entire student, including his or her social, political, and moral development. Beane's model has great potential, but the high-stakes, standardized-testing educational environment has led to a standardized, subject-centered curriculum (Vars & Beane, 2001). With both state and national standards being set in each subject area, it seems as though abandoning the subject-based curriculum is, at best, daunting, if not an impossible task. In addition, properly executing Beane's plan requires a significant amount of time, money, and

expertise. Ultimately, while a democratic, integrated model may be the most ambitious form of curriculum (Parsons, 2004), it is not something that can easily be instituted in today's educational environment. In the case of art education, however, the current lack of standardized testing, coupled with the "big picture" view, allows art educators the freedom to approach and employ a curriculum of this nature and to begin to make positive changes in students' educational experiences.

Jacobs' (1989) model of curriculum integration can be more easily used on a large scale amongst multiple disciplines. She gives a plan of action so that teachers can begin using it immediately, while preparing for the long term. Jacobs (1997) advises that teachers begin integrating their curriculum step by step, by planning just one effective lesson that incorporates two different disciplines. She hopes that the experience will be positive and inspire future integrated lessons. She has created guides outlining the process for a school or district to make the switch to an integrated curriculum. In an interview with Brandt (1991), Jacobs suggested that educational leaders begin the integration process by asking key questions and gathering information prior to beginning the process. Jacobs' plan is very organized and detailed, which appeals to school districts and school boards, making for an easier transition to a school-wide, even district-wide, integrated curriculum. In her method, students deal with a problem in one discipline and then the teacher relates the problem to additional disciplines, while at the same time, students should be covering similar topics, problems, or time periods in their other classes.

Jacobs' program is not without its drawbacks. With connections made to multiple disciplines in every class, students can easily become confused and lose sight of the purpose of the lesson. The plan requires a large amount of cooperation among teachers of multiple disciplines, and, like Beane's plan, Jacobs' plan requires a significant amount of time and



money. Often, once such a significant amount of work is completed and money has been spent, schools are reluctant to change, which makes Jacobs' plan potentially unresponsive to changing ideas and environments. The level of planning that is involved takes away from the autonomy of the classroom teacher and removes the teacher's ability to change the order or structure of lessons to suit individual classes or students. Additionally, Jacobs' plan is not automatically relevant, because students do not necessarily have involvement in the topics chosen and therefore may not see any connections beyond the school day. Consequently, under this model, the students may not experience the motivation and increased comprehension that we desire from the integrated curriculum. In addition, in Jacobs plan, students do not necessarily receive any moral or social education.

Because art educators are in a unique position of teaching a subject that clearly relates to other aspects of life, it is possible that the beginning steps of an ambitious, integrated, and democratic curriculum, similar to that proposed by Beane (1997), can be achieved more readily through the visual arts curriculum. Additionally, a step-by-step approach, such as the one proposed by Jacobs (1989), is easily incorporated into the classroom if art teachers have easy access to the TEKSs of other subjects that can be effortlessly included into learning activities in the visual art classroom. Additionally, effortless integration of subjects based on the standards has the potential to increase success of an integration program for the teacher. This research was guided by a blending of these two models with a goal of creating a foundation for an integrated curriculum that is both adaptive to student and teacher needs while addressing state and national standards that administrators and parents hold to. The research attempted to do this by using the middle school visual arts and core Texas Essential Knowledge and Skills (TEKS) to identify potential learning activities that can be aligned within the existing standards. The research also

attempted to demonstrate the adaptive possibilities the curriculum may hold under these standards by displaying the results in a format that allows visual art teachers to “pick and choose” the core TEKSs that they would like to integrate based on their unique situations and comfort levels.

## CHAPTER 2

### REVIEW OF THE LITERATURE

Parsons (2004) expressed the significance of his literature review on integrated curriculum by stating that its purpose is:

...to articulate the vision that lies behind it. I hope that the review suggests two things: for art educators, that an integrated approach might enhance the teaching of art; and for educators, in general, that art has a significant role to play in integrated curricula. (p. 775)

Additionally, my hope is that the literature review for this study also shows opportunity for the research necessary in the area of integrated curriculum. The literature reviewed for this study is related to (1) integrated curriculum, including the definitions, its role in a standards based curriculum, motivations, models currently being used, the applications in the secondary classroom, and the relevance to the arts; and (2) curriculum alignment and curriculum mapping as they each relate to this study.

#### Integrated Curriculum

Parsons (2004) chose not to define integrated curriculum directly. He pointed out that many different practices fall under the same “integrated” umbrella. These practices include democratic schooling, interdisciplinary, multidisciplinary, cross-disciplinary, the experience curriculum, the activity-centered curriculum, and the project method. This list is rather inclusive of the literature of integrated curriculum, but what Parsons failed to mention is that while some authors would be fine including all of these things together in one list, others would not. For example, Parsons included democratic schooling as the most ambitious form of integrated curriculum and James Beane, a prolific author on the topic, would likely agree. Beane (1991)

has written extensively, and negatively, on the topic of interdisciplinary curricula, however, and would not likely approve of including it under the umbrella of integrated curricula models. Consequently, there is still an amount of dissent among educators, researchers, and academic writers about the exact definition of integrated curriculum. This leads to a large amount of confusion and debate. For the purpose of this inquiry, Allan Ornstein's (2003) broad definition was used for this research because it encompasses what educators frequently mean when they use the term. He stated that, "integration refers to the linking of all types of knowledge and experiences contained within the curriculum plan" (p. 243).

Additionally, this thesis addressed curriculum integration from a standards based approach, and there is literature to support such an approach. Drake (2001) conducted an 11-school study researching the effects of parental involvement on school improvement planning. As part of the study, she presented a separate case study of a teacher whom she helped to develop a standards based integrated lesson plan for his fourth grade class. In doing this, she suggests that you start with the standard, finding what you want the students to know, then what skills you want them to be able to do, then how you want them to act. Then you plan the learning activities. In creating the unit this way, they found that you can successfully integrate units using the standards rather than working against them. In this case, they developed a unit centered on Medieval Times, a social studies standard, and then added in standards from science, language arts and the arts. They felt it was too early to conclude if test scores were higher but they did see significant results on rubrics, and students did successfully make connections between the subjects.

## What is Arts Integration

Because arts integration still has its philosophical origins in curriculum theory, there is not a readily available definition for what qualifies as arts integration. In fact, Mishook and Kornhaber went so far as to state that arts integration is a contested term in the field and that “arts educators do not have any shared agreement on what arts integration should look like, or even whether it should be a goal of arts education” (2006, p. 4). One can, however, postulate from the previous Ornstein definition of integrated curriculum that arts integration is the linking of all types of knowledge and experiences contained within the curriculum plan using the arts. Naturally, how that linking occurs is the source of the debates in the field. Two distinct areas of research exist, one involving the integration of the arts themselves, meaning connecting theater, music, visual arts, and dance, and the other involving the integration of the arts with other disciplines. This literature review focuses on the latter.

No clear arts integration specific guidelines or curriculum models were uncovered during the process of this literature review; instead, most authors rely on the use of models present within curriculum theory. These models are addressed in detail in the following sections.

There were, however, two studies which are specific to arts integration which categorized the varying degrees of success of an arts integration program. Although art educators as a whole cannot agree on a definition of arts integration or even if it should be a goal, one thing that is generally agreed upon is that the arts are to maintain a central focus. A fear is that the arts may become subservient to other subjects. The National Task Force in Arts Education (2009) emphasized the importance of arts integration and addressed this fear by maintaining that the arts must retain their integrity and not be used merely as an aid for other subjects. In order to determine an arts integration program’s success at this, Bresler (1995) studied arts integration

programs and created her own typology to assess the effectiveness. Programs were placed into four categories, co-equal cognitive integration, subservient integration, affective integration, and social integration. Co-equal cognitive integration is the goal of arts integration; however, according to Bresler's study, it is the least practiced. This type of integration involves a deep understanding of both subjects. The examples she gave were of a history teacher leading her students in a lesson about the historical background of music and composers so that the students were engaged with both the music and the history and of a gifted teacher leading his students in a discovery of the types of lines in the room and then an exercise in drawing the lines. These types of activities, according to her, were very rare. The most common type was the subservient integration, which involved using the arts to make the other subjects more interesting, such as singing a song about the planets. In this category, she found there was very little input from art specialists and that general education teachers had a low expectation that the arts could aid in student learning. The third type was affective integration, this is when the teacher used the arts to change the mood or creativity of the students; for example, playing background music to calm them down after lunch. And the fourth was social integration which consisted of social activities involving the arts, such as plays and PTA performances. She found that if an art professional was not involved then very little attention was paid to aesthetics or quality and more emphasis was put on the social qualities. Bresler's study was informative because it speaks directly to the fears about arts integration in the art education community, but her study was performed in 1995 and some of the data she was examining were collected prior to that. Hopefully, current practices are different.

A second study conducted by Mishook and Kornhaber (2006) built off of Bresler's model. Utilizing Bresler's four typologies, interviewed people at 24 schools in Virginia to

determine the success of arts integration programs. Of the people and campuses they interviewed, 18 of the campuses had some sort of arts integration mentioned in the various interviews conducted, but only nine campuses had enough compiled details about the arts integration programs to classify the programs into the categories. These researchers were able to classify four schools into the co-equal arts integration category and five schools into the subservient integration category. It is noteworthy that all four schools which were categorized as co-equal were also considered arts focused schools. One school which was considered an arts focused school was categorized as subservient. Mishook and Kornhaber found a link between the type of integration and the socio economic status of the school. The schools with higher socio economic status tended to have a more co-equal approach to arts integration. They also found that state testing impacted arts integration in a negative way, overall.

Compared to Bresler (1995), Mishook and Kornhaber (2006) seem to have slightly more positive results, but there is still room for improvement. One of Mishook and Kornhaber's interviews revealed that while schools may appear to value integration, and specifically arts integration, the onus is on the teacher of the arts to make the connects between the arts and the other subjects. This may not necessarily be fair, but it is the current state of affairs.

#### Motivations for Integrated Curriculum

Since there is significant debate in the field of art education about whether or not arts integration should be a goal of arts education, it is relevant to address the literature supporting integrating the curriculum. "Integrated" has been a buzzword among educators, administrators, and curriculum writers for the better part of the past two decades (Brandt, 1991; Krug, 2000), although the concept of curriculum integration has been around much longer. Vars (1991, 2001) suggested that there have been attempts at reforming the core with forms of integration since at

least the 1930s, including the famous Eight Year Study performed by the Progressive Education Association, and that there is evidence that the history of the idea goes back much further.

The concept can be traced to Dewey and his 1902 publication *The Child and the Curriculum*. He stated:

Again, the child's life is an integral, a total one.... The things that occupy him are held together by the unity of the personal and social interests which his life carries along. Whatever is uppermost in his mind constitutes to him, for the time being, the whole universe. That universe is fluid and fluent; its contents dissolve and re-form with amazing rapidity. But, after all, it is the child's own world. It has unity and completeness of his own life.. He goes to school and various studies divide and fractionize the world for him. (pp. 9-10)

Dewey's fundamental principle is that the world is a beautiful, unified place to a child and consequently the natural way of learning is through a unified, problem based approach. He proposed that that fragmented school day, consisting of several distinct subjects, is a result of an adult understanding of the world. Simply put, because adults already know the wide array of material being taught, it is easy for them to look at all of it and begin categorizing it, grouping similar topics together. For example, it seems very logical to an adult to teach writing and literature within the same class. In Dewey's opinion, this type of classification led to the development of the disciplines and the fragmented school day. Dewey presented one of the earliest arguments for the benefits of integrated curriculum.

While Dewey's work is an early publication, it is still incredibly relevant today, because school days continue to be fractured. This fractured environment creates a confusing place where it is hard for learning to take root. "It's like you go to entirely different worlds each time you change classes. Different teachers, different students, different rooms, different information that in no way connects with your other classes or your world outside of school" (Sam, as cited



in Taylor, 1999, p. 71). Still, in 1999, Sam desperately wanted to make connections, as Dewey was arguing for back in 1902.

Numerous studies have been conducted in order to prove the validity of integration. Vars (2001) stated that over 200 studies had been conducted thus far with nearly all demonstrating that students taught with some form of combined or integrated curricula perform as well or better on tests than students taught with conventional curricula. He also pointed out that the standardized tests they are taking to prove the validity of the curriculum have been designed to assess single subject curricula. Given the age of the integrated curricula movement, the majority of these studies were conducted well over 25 years ago with many of them as early as the 50s (Micklson, 1957; Wright, 1956 ). One study that Vars addressed, conducted by Lee and Smith (1993), looked at 8,845 eighth graders in 377 different schools. The schools were all trying to restructure their programs to become more student centered. The team reported modest academic improvements, but noted that those improvements were consistent. They believe their results showed the benefits of team teaching and argued for a less segmented curriculum which operates more like a natural society. These results were consistent with what Vars (2001) found in reviewing the additional studies from the past 60 years, which is that students generally do well in an integrated curriculum program.

In reviewing the literature for this study, it was difficult to locate relevant studies addressing the same questions of the validity of curriculum integration in a modern school environment. Applebee, Adler, and Flinhan (2007) addressed this issue by looking at 542 students in schools in both California and New York. The study involved 30 different teachers with a total of 11 different teams. The goal of the study was to systematically analyze the approaches of interdisciplinary curriculum in middle school and high school classrooms over the course of 2

years. The researchers did not specifically test for student achievement during their study because it was not the goal of the research, but they felt that with the amount data that was collected, they were able to draw some basic conclusions about student achievement by the end of the study. They concluded that while the integrated curriculum programs did not seem to harm the students' achievement, they did not see any evidence to suggest it was dramatically improving it. This study is consistent with the conclusions of Vars (2001) who claims that students simply do as well or better in integrated curriculum programs as far as academic achievement is concerned.

Saying that students do "as well or better" in these programs may seem anticlimactic, but it is important to remember that much of what integration does for students is hard to measure. "It [curriculum integration] may result in higher test scores, but even more important are its other benefits such as love of learning, concern for other people, critical thinking, self-confidence, commitment to democratic group processes, and a whole host of other so-called 'intangibles'"(Vars, 2001, para. 20). Parsons (2004) also cited similar elusive concepts as benefits of integrated learning such as socially relevant education, greater awareness of self, and more understanding and tolerance for others.

In addition, an integrated curriculum better prepares students for their daily lives, including careers. "[S]tudent concerns (such as choosing a career) transcend the disciplines" (Glatthorn & Jailall, 2009, p. 104). One does not go to work and do the mathematics portion of their job until noon, eat lunch and then begin the reading portion; rather, one's day is naturally integrated. An integrated model allows students to discover all the necessary components about themselves, the world around them, and their potential job choices as they make career decisions. Hargreaves and Moore (2000) conducted a study to prove exactly this point. They studied 29

teachers who taught seventh and eighth grade in Ontario, Canada. At the time, documents had been released in Ontario to show that students were underprepared for the workforce.

Hargreaves and Moore chose to study teachers who were eager to make a difference in this statistic, through an integrated learning approach. They concluded that the integrated unit developed skills that were increasingly valued in today's complex and ever-changing society and that the students developed critical thinking skills that were invaluable to the workplace along with a critical eye for injustice, intolerance, and inequity.

### Motivations for Arts Integration

Arguments for arts integration are similar to the arguments for the integration of the curriculum at large, including socially relevant education, greater awareness of self, and more understanding and tolerance for others (Parsons, 2004). In research that addressed the benefits of the arts specifically, the majority did so with the primary focus on the idea that involvement in the arts produces a well-rounded learner (Marshall, 2005; Taylor, et. al., 2006). In "Connecting Art, Learning, and Creativity: A Case for Curriculum Integration," Marshall (2005) says:

A central tenet of learning and creativity theory is that learning and creativity are essentially connection-making. Consequently, teaching is a practice of making connections or helping students to make connections. Connectionism and constructivism challenge teachers to re-conceptualize their practice and role-not as mere distributors of information or trainers of skill, but as connection-makers who 'weave' nets between disparate areas of knowledge. (p. 242)

Additionally, in *Interdisciplinary Approaches to Teaching Art in High School*, Taylor, Carpenter, Ballengee-Morris, and Sessions (2006) cited several examples of the benefits of arts integration, including the fact that studies show that CEOs are interested in creativity when hiring employees, that training police officers to look at paintings makes them better at assessing crime scenes, and that teaching medical students to look at paintings improves their abilities to read x-rays and even assess patient symptoms. In each of these instances, the integration of the arts

with the primary subject results in an improved learning outcome, creating a well-rounded learner.

The majority of research focused on the benefit of arts integration is in the form of case studies and action research. Khourey-Bowers and Croley (2007) presented a case study that took place in Croley's fifth-grade art classroom. Students became interested when Munch's *The Scream* was stolen in 2004 and Croley knew they were studying a novel in English detailing events of the Holocaust, so she decided to introduce the ideas of the stolen artwork during the Holocaust, adding social studies content as well. From there, she had her students become docents and create a museum, introducing the ideas of verifying authenticity and provenance. She found that through this integrated unit the students were engaged and asked authentic questions about the art world, museums, history, language arts, and cultures.

Another example is an action research performed by Broome and Broome (2010) in one of the author's fifth grade classrooms. An integrated unit based on *Art for Life* (Anderson, 2005) was designed and implemented. The unit required students to work with the theme of natural disasters for weeks. The theme was chosen carefully, based on student interest, current events, and applicability to multiple subjects. The author, in whose classroom the research was conducted, taught English and science from the perspective of natural disasters with an attempt to not distinguish when subjects were being shifted. The other author would visit from the local university once per week as an art specialist to deliver an art lesson with a theme of natural disasters. The things the students were learning about the natural disasters were incorporated into their artwork and art lessons and they were also asked to write about their artwork. It was concluded that students were able to create natural, unforced connections between science,

language arts, and the visual arts. The integration provided a relevant way to hold the students' interest and produced an opportunity for students to develop compassion.

Each of the results of these case studies / action research demonstrates the potential benefits of arts integration for the student. Arts integration is not directly about boosting test scores or higher graduation rates, nor is it about improved artistic ability. But as Efland (2002) reminded us, "the purpose of art education is *not* to induct individuals into the world of the professional fine arts community. Rather its purpose is to enable individuals to find meaning in the world of art for life in the everyday world" (p. 77). The purpose then of arts integration is to bring relevancy to the classroom in a way that enables students to see this meaning for art.

### Curriculum Integration Models

While several researchers present their form of curriculum integration (Daniel, Stuhr, & Ballengee-Morris, 2006; Loepf, 1999), each form identified for this literature review (both in general curriculum integration and arts integration) falls into one of the ten following models categorized by Fogarty (1991): fragmented, connected, nested, sequenced, shared, webbed, threaded, integrated, immersed, and networked. Looking closely at various models of integration, they generally align into one of two camps, either integration while maintaining separate subjects or integration while compiling two or more subjects (Glatthorn & Jailall, 2009). The work of two curriculum theorists, Jacobs and Beane, who are prolific contributors to the literature on curriculum integration, falls on opposite sides of the continuum when it comes to models of integration. Jacobs' model is by far the most popular; her book *Interdisciplinary Curriculum: Design & Implementation* (1989) is a standard in curriculum integration, and it was cited by many works on curriculum integration reviewed for this study. This type of integration focused on the use of themes, falls into Fogarty's webbed approach, and is the type observed

most often in the literature (Fogarty, 1991; Oster, 1993). Jacobs' approach maintains individual subjects and focuses on slowly moving the school to an integrated structure, giving step-by-step instructions, with the ultimate goal of creating theme units of study crossing multiple disciplines. While the origin of the phrases "big ideas," "key concepts" and "essential questions" are difficult to trace, according to Daniel, Stuhr, and Ballengee-Morris (2006), Jacobs became one of the first to use them in her book *Interdisciplinary Curriculum: Design & Implementation*. These terms and concepts appear repeatedly in the literature and have become synonymous with integrated curriculum.

Jacobs typically writes books and articles about how to integrate the curriculum; teachers and districts implement her plans, then research using Jacobs models typically is in the form of action research. One example of a study from the perspective of a core discipline teacher was published by Oster (1993). Her action research involved the creation of an interdisciplinary unit for her high school students, using the thematic topic of Sub-Saharan Africa. While she does not specifically mention Jacobs, the influence of the model is clearly present. The project involved herself (an English teacher), a studio art teacher, and a global studies teacher. She found the unit to be valuable not only for the students but also for the teachers involved. She noted that "[i]ncorporating Studio in Art allowed students to express their understanding of the academic material in art work that reflected their personal vision and creativity. When students can see the relationships among disciplines they become excited about learning" (p. 28).

The work of James Beane is also highly respected among the integrated curriculum community, often carrying with it an air of authenticity because individual subjects are not maintained. He is very critical of Jacobs' method, which he believes is multidisciplinary and not truly integrated (Beane, 1991; Dowden, 2007). Beane's curriculum model focuses on student-

led learning and falls under Fogarty's immersed and networked approaches (Fogarty, 1991). Beane believes in a curriculum model where students construct their own meanings and learning experiences by asking questions that guide the teacher to what they want to learn (Beane, 1991). This approach is also referred to as democratic schooling and Parsons (2004) recognized it as the most ambitious form of integration.

Perhaps the inclusive nature of the elementary classroom lends itself to integration. It is much more difficult, however, to locate examples of integration in middle schools (Beane, 1991). Because of this, the literature review for this study was expanded to include integration at all levels with a preference to middle level research. Exceptions to this trend was Beane's research which considered the middle school to be the ideal place for full curriculum integration and others who are using Beane's model (Beane, 1991; Dowden, 2007).

Beane's model of integration is typically presented in research in the form of case studies and action research. Beane (1991) criticized publicized models of curriculum education where the connections may be lacking in favor of his model and simply gives examples of schools who have had success in order to demonstrate how the model might take shape. For example, he reports on a middle school which developed activities around designing a model of the city of Madison, Wisconsin in the year 2020. This involved integrating committees, transportation, health, education, government, economics, sketching, and other skills. Students also brought in professionals from the community to help them with their project. Beane asserted that this type of learning environment gives the students a voice, it is constructivist in nature, it is knowledge rich, and it departs from any traditional subject and time divisions.

Each integration method has widely recognized positives and negatives. Jacobs' model, and others like it, is easier to introduce into the standards-based curriculum which is currently in

use, though the theme-based approach often leads to a trivialization of the disciplines being connected. Beane's model, and those like it, are student-centered and get to the core of what students find relevant, but the shift to this method requires a standards-based school to change its entire curriculum dramatically. Ultimately, the search continues for the hybrid of these two models.

### Models of Arts Integration

The models of arts integration present in the literature did not vary from the models intended for general curriculum integration. Walker's (2001) *Teaching Meaning in Artmaking* appears to have influenced the art education community with concepts of both the big idea and the essential question (Stewart & Walker, 2005; TETAC 2001).

When a body of research was uncovered which discusses initiatives related to arts and core curriculum integration, it was based on a specific project or case studies (Barrett, 2003; Noblit, Corbett, Wilson, & McKinney, 2009; Stewart & Walker, 2007). In order to review these models, three major projects related to arts integration are outlined, citing sources which give an overview of the initiative itself and case studies involved in the project to give a specific example of student, teacher, administrator, or researcher opinion.

#### *The Role of the Arts in Unifying the High School Curriculum Project*

The first project, the Role of the Arts in Unifying the High School Curriculum Project, was funded by the College Board's National Center for Cross Disciplinary Teaching and Learning and the Getty Center for Education in the Arts. This project took place in five different high schools across the country, in an effort to use the arts to integrate the curriculum in those schools (Boston, 1996). *Connections: The Arts and the Integration of the High School Curriculum* is a report by Bruce Boston, discussing the project and including a brief overview of



the strengths of curriculum integration and several reasons why the arts are uniquely able to successfully integrate an entire curriculum along with the benefits of art education. Among the arts benefits that were found and reported in the preliminary report were the ability to address the needs of a high performance work environment, providing students a strong cultural education, and the teaching of effective communication. There are useful details to be found in the case studies from the individual high schools that participated in the project, such as the account by Barrett (2003), "Unifying the Curriculum with an Art Exhibition: In the American Grain," which chronicled the experiences of students, teachers and administration at the Vancouver School of Arts and Academics, for which he served as the faculty advisor on the project. The school was accepted into the 4 year program and was provided with funding which included a week long training institute during the summer prior to the start of the program, access to two faculty advisors, time for planning during the school year and summers, and money for teaching materials. Core subjects were taught in the morning and the arts were taught in the afternoon in a multi-grade level environment. This design still maintains some elements of a fragmented school day by dividing the day in half, but all of the classes are unified by the unifying concept chosen for a particular period of time to help ease this concern. The entire program was cross-disciplinary and project based. This particular case study chronicled a five-month period where students worked with a unifying concept of a modern art exhibit at the Portland Museum of Art, titled *In the American Grain*. The exhibition included works by Arthur Dove, Marsden Hartley, John Marin, Georgia O'Keeffe, and Alfred Stieglitz. The school was unified as a result of the unit and student learning was enhanced. In Barrett's (2003) words: "Learning that results from a thematic curriculum can be very diverse and multi-faceted. Students can be motivated to excel individually and in cooperative learning groups when working within a thematic arts curriculum"

(p. 39). This case study relates to this research study because of its emphasis on the thematic curriculum. The thematic approach is appealing because of its versatility in bringing multiple subjects together based on a unifying concept or skill set as the alignment in this research will attempt to do. Barrett's (2003) case study shows that thematic approaches to an integrated art curriculum can be successful.

*Transforming Education Through the Arts Challenge (TETAC)*

Transforming Education Through the Arts Challenge (TETAC) was another important project that included 35 schools across the country in 6 different states - California, Florida, Nebraska, Ohio, Tennessee, and Texas - participating in a thoroughly developed program for integrating the school with the arts (Stewart & Walker, 2007). The five-year project was funded by both the Annenberg Foundation and the J. Paul Getty Trust. The purpose of the project was to develop and test a comprehensive arts education approach to instruction known as CAE.

There were five stated goals of the program:

- 1) Institutionalize support for CAE as a part of the basic core curriculum;
- 2) Demonstrate how CAE, when integrated with other elements of reform, can transform a school's culture and the lives of students and teachers;
- 3) Support the active engagement and involvement of parents, communities, arts organizations, school-reform networks and resources, funders, the broader public and education professionals in this reform effort;
- 4) Create an effective combination of documentation, assessment and evaluation strategies to ensure rich and reliable ways of knowing what has been accomplished, what has not, and why; and
- 5) Create a means to disseminate information and successful practices learned from this effort among educators, legislators, local communities and others to inform their interest in school reform and the arts. (TETAC, 2001, p.8)

At the end of the TETAC project, these goals were reevaluated in a variety of ways. Of importance to this study was the surveying of teachers about their attitudes toward the project overall. The authors reported the results of this survey as follows:

Nearly two-thirds strongly agreed that “arts education should be a basic part of every student’s general education,” with most of the remainder agreeing with the statement. All but 9 percent of teachers endorsed the statement that “the arts can be used successfully as a focus for curriculum integration in a school.” All but 10 percent also thought critical thinking skills could transfer from the arts to other subjects. (p. 51)

These attitudes are critical to this study which presents the potential for the alignment between the arts and the core subjects for the purpose of curriculum integration. The approach of this alignment centers on aligning skills and learning activities such as the critical thinking skills mentioned in the above statement. In the TETAC project, when questioned about the barriers that they faced either during the project or that they felt they would face in the future, “Respondents considered demands of other programs or state and district assessment requirements as the most threatening barriers to continuation of the program” (p. 57). This is especially critical to the current study which attempts to show a relationship between the state requirements of the visual arts and other core subjects. Finding the areas of natural overlap between the disciplines and making them apparent to the teacher has the potential to lessen the threat and the barriers.

The overall results of TETAC were impressive with the teachers reporting that one of the things that they were most successful at was “using the arts to make connections across subject areas” (p.54). This success has inspired a number of researchers to reinvestigate integration and the arts. For example, Stewart and Walker’s 2007 book *Rethinking Curriculum in Art* reveals example after example from the TETAC project as it hopes to inspire practicing and pre-service teachers to reexamine current curricular practices. They focus on the concept of integrating the curriculum with enduring ideas. One such example from the TETAC project addresses students in fourth and fifth grade in New Orleans, Louisiana. The enduring idea was sense of place and the artist was Will Henry Stevens. In one lesson, the students focused on essential questions,

listing things that made their city unique. In another lesson, the students worked with Japanese design elements. Then when they were able to interview a former student of Stevens and learned how he was inspired by Chinese landscape painting, the students were able to make the connection between the lessons. Each lesson was related both to sense of place and to Stevens. From these experiences, the teachers concluded that the students were able to examine Stevens' artwork from an art-historical way that they would not have been able to without having had these rich experiences.

There were several groups of TETAC mentors. The mentors and authors from Ohio State involved in reforming five of the Ohio public schools in the TETAC project wrote a paper "Integrated Curriculum: Possibilities for the Arts" (Ohio State University TETAC Mentors, 2002). Their findings were similar to the final TETAC project report, but the paper has a different tone because it focuses on the individual experiences of the mentors. The report gives the perspective of the students and the teachers from the point of view of the mentors but does not have any interviews and does not make it clear that it is not speaking for the teachers at the school. The final conclusions are positive about the project, but emphasize the need for a curriculum that is extremely adaptive to the school and the community that it serves.

While the reports suggested that the overall impression was positive, there was some dissenting literature. Daniel, Stuhr, and Ballengee-Morris (2006) stated:

In 1998, the National TETAC Task Force for Curriculum developed guidelines for curriculum around the arts. As Ohio TETAC Mentors, we found those guidelines inappropriate for our work with our site schools. Our vision was more in line with a comprehensive integrated curriculum that explored themes and issues driven by site-specific needs than the former Getty DBAE model that some national TETAC schools favored at this time. (p. 6)

Essentially, they had positive experiences with TETAC, because they enjoyed the integration of the arts and the core, but they were calling for a more adaptive and fully integrated curriculum than the TETAC program called for.

### *A+ Schools*

The most recent major example of integration between the arts and the core is the A+ Schools program, which began in North Carolina in 1995 with 25 schools and has since expanded to 43 schools across North Carolina and has been adopted by school systems in Arkansas and Oklahoma. This program, sponsored by the Kenan Institute, has the goal of creating and sustaining arts-based reform in schools. This is done through a unique, integrated model that is adaptable to the individual school's needs at the time when the school joins the group. They have six stated goals that the schools adopt for their curriculum:

- 1) Students should have increased exposure to arts instruction, both in classes with arts specialists and through arts activities in their regular classrooms.
- 2) Schools should foster two-way arts integration. This mean[s] that schools ha[ve] to consider how to infuse the arts into the core curriculum and the core curriculum into the arts.
- 3) Teachers should tap students' multiple intelligences.
- 4) Schools should adopt an integrated thematic approach to the major ideas in the curriculum.
- 5) Schools should increase professional collaboration.
- 6) Schools should strengthen their relationships with parents and the community. (Noblit, Corbett, Wilson, & McKinney, 2009, pp. 5-6)

In order to achieve these goals, the program works closely with schools to provide training materials, funding, and extensive professional development. Schools, principals, and administrators are allowed to work within the goals to adapt the curriculum to fit the needs of their students and community at the time, as long as they are making continued efforts towards incorporating arts into the curriculum, making it particularly appealing.

Individual case studies demonstrate the adaptability of this program. For example, one principal cited in a case study, from a program which had an elementary school that was at risk of being taken over by the state board of education, with little money and few options, indicated that this program was a way for him to increase the training of his staff and improve his school. The path was slow and his students struggled in mathematics a great deal. Often the curriculum of the A+ program had to be altered to involve integration of mathematics into the arts as well as into the other subjects due to students' poor performance in mathematics, but over time mathematics test scores improved. The principal was consistently adding to the arts staff and eventually the efforts of incorporating the arts into the schools programs resulted in higher test scores and an improved school environment (Noblit, Corbett, Wilson, & McKinney, 2009). This particular case study emphasized the importance of administrative support in integration initiatives. This study focused on integration at the standards-based level, partially as a way for teachers to gain administrative support in their classroom for their efforts in integration between the arts and the core subjects.

### Overcoming the Pitfalls of Arts Integration

While most of the literature is positive towards arts integration, there are potential downfalls of integration and the arts. The first pitfall that the research shows is related to the fact that the data on connections between the arts and improved test scores are inconclusive (Eisner, 1998). Murfee (1995) disagrees, claiming that the arts not only increase test scores but that they also improve school involvement. The second is that focusing on how the arts improve other subjects can take away from the importance of a solid arts education (Eisner, 1998). The Ohio State University TETAC Mentors had an appropriate response to concerns of this nature, “[w]e have been pre-occupied as a profession with the autonomy of art, with its importance as a

separate discipline, or set of disciplines, and we have not well conceptualized art in an integrated curriculum” (2002, p. 13).

Additionally, there are many fears associated with curriculum integration. One is that students may not meet the standards, or pass "the test." To this point, Vars (2001) reminded readers that over 200 studies have been conducted thus far with nearly all demonstrating that students perform as well or better on tests after being taught with an integrated curriculum than with traditional curricula (2001).

Another fear is that teachers who are integrating various subjects, including art, may not have the proper training and skills to do so. This is a valid concern, but only if subjects are eliminated. According to Parsons (2004), subjects should be viewed as “tools” and the class as learning to master the tools; the integration or “project” is the building of something with multiple “tools.” For example, if you need to build a birdhouse you may need a saw, a hammer, some nails, and some wood; you must know what to do with each one individually, but you must also learn how to build something useful out of them as a group. In this analogy, it is critical to maintain some degree of separation between disciplines (the tools) because you still need to know how to use them; you just also need the opportunity to use them together once in a while. In this model, team teaching is ideal; this way students benefit from combined subjects and experts in their field. Because team teaching is ideal, according to Parsons, properly performed integrated curriculum is more time consuming and more expensive than the traditional fragmented model.

Another concern is that integrated curriculum may be an excuse to eliminate art programs, especially at the elementary level. This is a concern only when administrators are under the mistaken impression that integration will be a cheap option. Integration is better for

students on many levels, but it is more demanding on both time and resources. When this is clear from the beginning, elimination of programs is not a major concern (Parsons, 2004). Finally, a major concern is the time and resources that a well-formed integrated curriculum demands. A properly performed integrated curriculum is more time consuming and more expensive than the traditional fragmented model (Parsons, 2004). Because of this, integrated curricula are often limited to a unit within the school year from a group of dedicated teachers. If there is a large effort at an integrated curriculum, it typically lasts as long as the money supply lasts.

Wallace, Sheffield, Rennie, and Grady (2007) published a re-examination of two of their studies about middle school integrated curriculum in Australia. The two original case studies looked at small groups of teachers and programs and their success with integration. The new study took a second look at those schools, programs, and teachers to find out if they were still successfully integrating, how and why. The researchers did not want to present any of the reasons you should integrate a curriculum. Rather, they were simply trying to address the question of how easy it is to maintain an integrated curriculum. Some were successful at maintaining and some were not; the results of the interviews pointed to the importance of resilience as the means for overcoming the pitfalls of integration due to the difficulty and spottiness of the implementation of curriculum integration programs.

#### The Role of Curriculum Alignment in Integrated Curriculum

“Curriculum alignment is a process of ensuring that the written, the taught, and the tested curricula are closely congruent” (Glatterhorn et al., 2009, p 85). There is a variety of curriculum aspects that can be aligned, including the recommended and the written curricula, the written and the assessed curricula, the written and the taught curricula, the hidden and the learned curricula,



and the taught and the learned curricula (Glatterhorn & Jailall, 2009). Though many combinations are acceptable for aligning the curriculum, at no point in the literature review was a reference to aligning two curricula of the same level encountered. For example, one may align state curricula with district curricula (Squires, 2005), but there were no references for aligning between subjects at the state level.

Curriculum mapping is often a helpful precursor to curriculum development; it allows teachers and staff an opportunity to see the entire curriculum at a glance, including what is actually taught, laid out before them in an easy to read and easy to follow format. They usually contain three types of data: a description of content, the processes and skills involved, and the nature of the assessment. Benefits of mapping are similar to those of alignment and include the opportunity for editing, reviewing, validating, developing and authentic assessment of a curriculum, interdisciplinary planning, and the potential for coordinated units of study (Jacobs, 1997).

Curriculum alignment and mapping can be seen as evaluation tools after the curriculum has been developed, but they can also be utilized as development tools for the creation of a flexible and adaptive curriculum. Both curriculum alignment and mapping allow schools to become more site-based and autonomous, giving them the freedom they need to attend to student needs (Jacobs, 1997). A thorough map and alignment will outline the necessary components of a lesson plan for a teacher without forcing them into a strictly controlled and structured curriculum, which ultimately allows the curriculum to be more flexible and adaptive (Glatterhorn, 1999). These characteristics are ideal in the implementation of an integrated curriculum.

## Conclusions to the Review of the Literature

Many different practices fall under the term “integrated,” including democratic schooling, interdisciplinary, multidisciplinary, cross-disciplinary, the experience curriculum, the activity-centered curriculum, and the project method (Parsons, 2004). These concepts are not new and can be traced to Dewey and his beliefs of the necessity of relevancy in education (Dewey, 1902). Over 200 studies have been conducted thus far with nearly all demonstrating that students taught with integrated curricula perform as well or better on tests than students taught with conventional curricula (Vars, 2001). And there are numerous benefits of integrating the curriculum, including love of learning, concern for other people, critical thinking, self-confidence, commitment to democratic group processes, socially relevant education, and a greater awareness of self (Parsons, 2004; Vars, 2001). Additionally, arts integration offers its own host of benefits, including producing a well-rounded learner, improving connection-making skills, improving observational skills, developing creativity, increasing test scores, and filling critical roles in brain development (Begley, & Hager, 1996; Marshall, 2005; Murfee, 1995; Taylor, et al., 2006).

One trend in the literature is that the compelling stories and data are often focused narrowly on specific units, lesson plans, and case studies; many of the more recent studies rely on interview and observation data of the individual unit, class, or school. This is important because current research trends in art education lean toward action-based research and case studies. While examples and unique case studies can be both helpful and inspiring, it is unfortunate that there was not a mix of studies including focused case studies with more broad statistical research, and general theoretical literature. The majority of literature that was discovered, which contained quantitative data, was more than 25 years old and while this is consistent with the trends in art education, it is not necessarily positive. Large scale curriculum

changes are time consuming and costly because each teacher's school and classroom is different and educators need some overarching ideas to help them apply principles to their unique situation and administrators and financial supporters often want to see evidence that a theory can be applied successfully in multiple circumstances prior to committing significant time and resources to it. This does not necessarily mean that qualitative research methods are required; simply stated, there is a lack of research that shows applicability of integrated curriculum both in general and especially of the arts on a sweeping scale, particularly at the middle school level. This study attempted to begin that process by demonstrating the ability for the arts to be integrated with each of the core subjects according to the TEKS, using a qualitative descriptive methodology.

## CHAPTER 3

### METHODOLOGY

This descriptive study used a qualitative content analysis to examine the middle school visual arts and core Texas Essential Knowledge and Skills (TEKS) to determine if there are potential common learning activities that can be aligned between the two. Descriptive research shows “status by first describing and then, to the extent possible, interpreting... conditions, behaviors, interactions, events, and trends” (Charles & Mertler, 2002, p. 265). The knowledge gained from descriptive research is often used to provide a basis for future decision making (Charles & Mertler, 2002). A descriptive approach was appropriate for this study because it is a beginning point of a potentially larger body of research.

#### Source of Data

The source of data for this study were the Texas Essential Knowledge and Skills (TEKS) for visual arts, mathematics, English language arts, and science. The TEKS, published by the Texas Education Agency, are state-mandated standards for what each student must know and be able to do in each curriculum area. They guide teachers, administrators, and curriculum writers as to what is essential knowledge and skills for Texas public school children at each grade level and inform the development of curriculum. The TEKS have been in use since 1998 and are periodically updated. The latest version of the TEKS was used for this study.

When No Child Left Behind was signed into law in 2002, the arts officially became a “core” subject nationally, along with English, history and geography, mathematics, science, and foreign language (U.S. Department of Education, 2001); however, in the Texas Education Code “core” and “foundation” refer to English language arts, mathematics, science, and social studies. All other curriculum areas are referred to as “enrichment” areas; the arts fall into the latter

category (Texas Education Agency, 2005). The TEKS for the visual arts are a subset of the Fine Arts TEKS. Because the terminology “core” and “enrichment” are used in Texas, they are used in this study to distinguish between the visual arts TEKS and the mathematics, science, English language arts, and social studies TEKS.

### Data Collection

I accessed the documents available on the TEA website in order to examine the TEKSs in the visual arts, science, mathematics, and English language arts for common standards and common potential learning activities.

### Analysis

After collecting the data, the analysis and alignment process began. A content analysis of the language present in the TEKS was used to analyze the data. “Content analysis is a research technique for making replicable and valid inferences from data to their context” (Krippendorff, 1980, p. 21). It is an appropriate methodology for this study because it helps demonstrate in a replicable way the common standards present between the core and the visual art TEKS.

Krippendorff (1980) described a process of taking larger pieces of text and breaking them down into thematic units; in this process, the themes in the text are made apparent to the reader and available for comparison, making this an ideal choice for the methodology of this study (p. 63).

Additionally, there are some advantages that benefited this research that are unique to content analysis. The United States General Accounting Office, Program Evaluation and Methodology Division (1996), gave the following reasons and examples for the benefits of content analysis:

- 1) Its potential to be unobtrusive- Surveys and other experimental qualitative methodologies can sometimes encourage participants and observers to behave in unusual ways, resulting in unnatural data. In contrast, content analysis can be used

to analyze factual data after it is gathered, allowing for a reduction of bias and an increase in validity.

- 2) Its ability to deal with large volumes of data - Because content analysis focuses on control checks, it is possible for multiple people to work on the same sets of data without compromising validity; this same characteristic makes it possible for a single researcher to analyze large volumes of textual data.
- 3) It is structured- Content analysis is systematic and because of this structure, researchers are able to pull facts from the data that casual readers are likely to miss.
- 4) It can support other methods -Content analysis is an excellent basis for a beginning study because it can easily play a supporting role for other methodologies, such as interviews and survey.

Each of these reasons has an applicable aspect to this research, making content analysis the best choice for data analysis. First, the unobtrusive nature of the methodology allowed for a reliable look at the TEKS because the research attempted to examine a relationship rather than prove a cause. Examination of the TEKS can be cumbersome for any one subject, let alone the examination of five areas at one time. Content analysis provided a systematic way to organize and analyze the data. Finally, content analysis supported other methodologies and other findings, making it appropriate for the beginning of a larger body of research.

The TEKS for the visual arts were organized into four strands: perception, creative expression, historical/cultural heritage, and response/evaluation. Perception refers to the development of the skill of organizing data from the environment around the student. Creative expression and performance refers to the act of creating the art itself. Historical/cultural heritage is the process of developing an understanding of art from a variety to time periods and cultures.

Finally, response and evaluation is the development of the skill of judging the art of others and personal artworks (Center for Educator Development in Fine Arts, 2006).

The first step in the analysis was to simplify the data into “thematic units” in preparation for analysis (Krippendorff, 1980, p. 62). I utilized these four strands as the organizing thematic units in order to determine alignment of the other subjects with the visual arts. If any TEKSs from another discipline share a common standard, as defined by the thematic units of the four strands, then they will naturally align in the art classroom, creating the potential for integrated curriculum. Initially, I considered the possibility of additional emerging themes beyond the four strands of the visual arts TEKS; however, upon completion of a pilot study, it was found that the coding of thematic units for other disciplines outside of the visual arts was cumbersome and potentially inaccurate (Hartman, 2010). I possessed the information to view the core subjects through the lens of an art educator and made an assessment as to whether or not a learning activity coincided with an art TEKS but I did not possess the same ability to assign non art-related thematic units to core subject TEKS and then see if the arts fit into those themes. Consequently, for the purposes of this study, I used the four strands of the visual art TEKS - perception, creative expression, historical/cultural heritage, and response/evaluation - as the thematic units for the analysis.

I began the analysis process with sixth grade visual arts, using an electronic spreadsheet to chart the results. This was followed for each grade level and each subject. The intent of the analysis was to assign a thematic unit based on the skill that is identified in a TEKS and the potential for shared learning activities. The TEKS themselves give the guidelines for what students should know and be able to do; they only suggest learning activities. If the language of a core TEKS or implied learning activity did not fit into one of the four strands defined as the

thematic units, then for this study it was omitted. Based on the pilot study, it was found that attempting to include all of the TEKSs from all of the core subjects, regardless of their ability to integrate with the visual art TEKS, in the data analysis, was unnecessary (Hartman, 2010). The full set of TEKS can be found in Appendix A. After the initial assignment of thematic units based on the four strands, I utilized a series of text searches of common words which appear in the TEKSs of each thematic unit. This process aided in capturing any missed TEKSs.

The data analysis is presented and discussed in the form of graphic organizers. These maps demonstrate the curriculum areas where overlapping material is present, showing both the assigned thematic unit and the full TEKS, and giving a more pragmatic view of the information.



## CHAPTER 4

### FINDINGS

The purpose of this study was to examine the middle school visual art and core TEKS to determine if there were common standards and common potential learning activities present in the those two sets of TEKS that can be aligned. The research questions were:

1. What are the potential common learning activities, if any, between the visual art TEKS and the science TEKS, in Grades 6, 7, and 8?
2. What are the potential common learning activities, if any, between the visual art TEKS and the mathematics TEKS, in Grades, 6, 7, and 8?
3. What are the potential common learning activities, if any, between the visual art TEKS and the English language arts and reading TEKS, in Grades 6, 7, and 8?
4. What are the potential common learning activities, if any, between the visual art TEKS and the social studies TEKS, in Grades, 6, 7, and 8?

The findings of this study are presented in relation to each research question in discussion form and in curriculum alignment maps found in Appendix B.

#### Science

##### *Sixth Grade Science*

The results of the content analysis of the sixth grade science and visual arts TEKS are presented in Appendix B, Map B-1. The analysis reveals that there is one science TEKS which aligns with two visual art TEKSs at the sixth grade level in the area of perception. The science TEKS states that the student must be able to use scientific inquiry methods to plan and implement investigations, while making observations about the world around them. They are expected to do this by asking well-defined questions and using appropriate equipment and

technology. The similar TEKSs for the visual arts states that the student should be able to develop and organize ideas from the environment and illustrate themes from direct observation, personal experience, and traditional events. The student should also be able to analyze and form generalizations about the interdependence of the art elements and principles, using art vocabulary appropriately. In examining these TEKSs, it appeared that the student is being asked to perform very similar tasks with regard to the two different areas of the curriculum. Learning skills of observation is essentially one and the same; the difference is in the domain from which the information is being drawn. Additionally, organizing these observations in science into the form of the scientific method seems to be very similar to asking students to organize their visual art observation analysis into the elements and principles of design in a work of art. Finally, both TEKSs require use of observation of the outside world, something that can be approached from a variety of domains. Based upon these similarities, it appears that an alignment can be made between these two TEKSs for the purpose of curriculum integration.

Within the area of Creative Expression at the sixth grade, there were no science TEKSs that appeared to align with the three visual art TEKSs. In the area of Historical / Cultural Heritage at the sixth grade level, there were two science TEKSs that align with three of the visual arts TEKSs. The first science TEKS which aligns in both areas expects students to know the contributions of relevant scientists and relate the impact of that research on scientific thought and society. The second expects the student to describe the history of space exploration. Each of these TEKSs appears to relate to the visual art TEKS which expects students to demonstrate an understanding of art history and culture as records of human achievement and to be able to identify the influence of historical and political events. In each of these TEKSs, the student is being asked to use the same skills of historical knowledge and cultural understanding and simply

apply them to different domains of knowledge. Historical facts, once learned, remain the same regardless of the discipline; the cultural components of these TEKSs allow them to have cross disciplinary applications. With these parallels, it appears that an alignment can be made between these two TEKSs areas for the purpose of curriculum integration.

In the category of Response and Evaluation, one sixth grade science TEKS emerged for alignment with the two visual art TEKSs in the category. The science TEKS expects students to be able to think critically by analyzing, evaluating, and critiquing. The similar visual art TEKSs ask students to be able to make informed judgments by conducting analyses and critiques of personal artworks analyzing original artworks of others. Each TEKS requires the student to develop critical thinking, analysis, evaluation, and judgment. While the students are expected to apply those skills to different domains of knowledge, the intended outcome is the same. The relationships between the skill sets described here demonstrate the potential for alignment between these TEKSs for the purpose of curriculum integration.

#### *Seventh Grade Science*

The results of the content analysis between the seventh grade science and visual arts TEKS are presented in Appendix B, Map B-2. The analysis reveals that there is one science TEKS which aligns with two visual art TEKSs in the area of perception. The science TEKS states that student must be able to use scientific inquiry methods to plan and implement investigations by making observations. They should be able to ask well-defined questions, using appropriate equipment and technology. The visual arts TEKSs state that student should be able to develop and organize ideas from the environment in order to illustrate ideas from direct observation, their imagination, or their personal experiences. In addition, they should be able to compare and contrast the elements and principles of design, using the appropriate art vocabulary. In examining these TEKSs, it appears that the student is being asked to perform very similar

tasks within two subjects. The learning skill of observation is transferable from domain to domain; the difference is in the context from which the information is being drawn.

Additionally, both TEKSs require use of observation as an investigation of the real world, giving them common ground not only in skill set but also in the subject being examined. Based upon these similarities, it appears that an alignment can be made between these two TEKSs areas for the purpose of curriculum integration.

Within the area of Creative Expression, at the seventh grade level there were no science TEKSs that appeared to align with the three visual art TEKSs for this area. However, the seventh grade area of Historical / Cultural Heritage contained two science TEKSs which appeared to align with three of the visual arts TEKSs in this area. The first science TEKS which aligned expects students to know the contributions of relevant scientists and relate the impact of that research on scientific thought and society. The second expects the student to use critical thinking and scientific problem solving to connect science concepts that are taught in seventh grade with the history of science and contributions of scientists. Each of these TEKSs appears to relate to the visual art TEKS which expects students to demonstrate an understanding of art history and culture as records of human achievement and to be able to analyze selected artworks to determine cultural contexts. In each of these TEKSs, the student is being asked to use the same skills of historical knowledge and cultural understanding, applied to different domains of knowledge. Historical facts, once learned, remain the same regardless of the discipline and provide a layered understanding of the time and culture being studied. With these parallels, it appears that an alignment can be made between these TEKSs for the purpose of curriculum integration.

In the category of Response and Evaluation, one seventh grade science TEKS emerged for alignment with the two visual art TEKSs in the category. The science TEKS states that students should be able to think critically by analyzing, evaluating, and critiquing scientific explanations. The similar visual art TEKSs expect students to make informed judgments about personal artworks and the artworks of others by analyzing and comparing relationships in the work, including meaning. Each TEKS expects students to develop critical thinking, including analysis and judgment. The students are expected to apply those skills in different domains of knowledge where the intended outcome is the same. The relationships between the skill sets described demonstrate the potential for alignment between these TEKSs for the purpose of curriculum integration.

#### *Eighth Grade Science*

The results of the content analysis of the eighth grade science and visual arts TEKS are presented in Appendix B, Map B-3. The analysis reveals that there is one science TEKS which aligns with the two visual art TEKSs at the eighth grade level in the area of perception. The science TEKS states that the student must be able to use scientific inquiry methods to plan and implement investigations by making observations. In addition, they are expected to ask well-defined questions using appropriate equipment and technology. The similar TEKSs for the visual arts state that the student should be able develop and organize ideas from the environment and illustrate ideas from direct observation, imagination, and personal experience, including from their experiences at school and community events. In addition, they should be able to define a variety of concepts related to the art elements and principles, using the appropriate art vocabulary. In examining these TEKSs, it appears that the student is being asked to achieve the same skill within two different disciplines. The skill of environmental observation is essentially

the same, regardless of the domain of knowledge; the difference here is in the domain from which the information is being drawn, just as it was in sixth and seventh grade. Also, both TEKSs require the students to observe their outside world, aligning the two TEKSs not only in skill set but also in subject matter. Based upon these similarities, an alignment can be made between these two TEKSs for the purpose of curriculum integration.

Within the area of Creative Expression there were no science TEKSs that appeared to align with the three visual art TEKSs for this area. There however, was one science TEKS that can be aligned with one of the three of the visual arts TEKSs in the Historical Cultural/Heritage area. The science TEKS expects students to know the contributions of relevant scientists and to relate the impact of that research on scientific thought and society. This relates to the visual art TEKS which expects students to demonstrate an understanding of art history and culture as records of human achievement, identifying cultural ideas expressed in artworks relating to social, political, and environmental themes. In each of these TEKSs, the student is being asked to use the same skills of historical knowledge and cultural understanding and simply apply them to different domains of knowledge. Historical facts are the same regardless of the discipline; the students are being asked to apply their understanding of these facts to different disciplines, building a layered understanding. With these parallels, an alignment can be made between these two TEKSs for the purpose of curriculum integration.

For the category of Response and Evaluation, one sixth grade science TEKS emerged for alignment with the two visual art TEKSs in the category. The science TEKS expects students to be able to think critically by analyzing, evaluating, and critiquing scientific explanations. The first visual art TEKS asks students to make informed judgments about personal artworks and the artworks of others by analyzing the works in individual and group critiques. The second visual

art TEKS expects the student to make informed judgments about artwork by analyzing original works of art to form conclusions about formal properties, historical and cultural contexts, intents, and meanings. Each TEKS seeks the development of critical thinking: analysis, evaluation, and judgment, as the student applies the skills to different subject areas. The disciplines are different but the intended outcome is the same. The relationships between the skill sets described here demonstrate the potential for alignment between these TEKSs for the purpose of curriculum integration.

*Science Summary*

Alignment between the visual art TEKS and the science TEKS occurred at all three grade levels. Table 1 summarizes the alignments found. The most alignments (5) occurred in the category of Historical/Cultural Heritage, two at the sixth and seventh grades and one at the eighth grade. One alignment was found for Perception at each grade level and one alignment was found for Response and Evaluation. No alignments were found between the Creative Expression TEKS and the science TEKSs.

Table 1

*Alignment between Visual Art TEKS and Science TEKS*

	Perception	Creative Expression	Historical / Cultural	Response & Evaluation
Sixth Grade	1	0	2	1
Seventh Grade	1	0	2	1
Eighth Grade	1	0	1	1

It was found that in the sciences, the aligning TEKSs often share an underlying skill. In the language of the TEKSs, the students are expected to apply those skills in different domains of knowledge but the intended outcome is the same. The relationships between the skill sets described demonstrate the potential for alignment between these TEKSs for the purpose of curriculum integration. It was also found that among the aligning science TEKSs, three of them repeated in all three years. The first expects students to conduct investigations by making observations and asking well-defined questions; the second expects students to use evidence, reasoning, and testing to examine all sides of scientific explanations; and the third expects students to understand the impact of research and the history of science on scientific thought and society. Only two of the aligning TEKSs did not repeat in multiple years and both of these were related to historical concepts.

## Mathematics

### *Sixth Grade Mathematics*

Appendix B, Map B-4 demonstrates the alignment between sixth grade mathematics TEKS and sixth grade visual art TEKS. There is one aligning mathematics TEKS for the area of perception which states that the student should be able to use Grade 6 mathematics to identify and apply mathematics to everyday experiences and activities in and outside of school, including with other disciplines and other mathematical topics. This appears to align with the visual art TEKS which requires students to develop and organize ideas from the environment by illustrating themes from direct observation, personal experience, and traditional events. In each of these TEKSs, students are being asked to apply the discipline to their everyday experiences and observations. This is encouraging the same development of observational skill for the purposes of curriculum integration.



There was one sixth grade mathematics TEKS which appeared to align with the three sixth grade visual arts TEKSs in the area of Creative Expression. The mathematics TEKS states that the student will select or develop an appropriate problem-solving strategy from a variety of different types; among the types listed is drawing a picture, looking for a pattern, acting it out, and making a table. Each of these creative problem solving solutions appears to align with the three visual arts TEKSs which state that the student is expected express a variety of ideas based on personal experiences and observations. The student is expected to describe the practical applications for design. The student is expected to demonstrate technical skills using a variety of art media and materials. With the mathematics problem solving TEKSs, there is a potential for any of these three and perhaps all three to be included simultaneously with the development of a student's creativity and problem solving skills, as it relates to integrated curriculum.

There were no aligning Historical/Cultural Heritage TEKSs between the sixth grade visual arts and sixth grade mathematics. However, there was one mathematics TEKS which appears to align with the two visual arts TEKSs for Response and Evaluation. The mathematics TEKS states that the student is expected to use a problem-solving model which includes evaluating the problem's solution for reasonableness. This appears to align with the visual art TEKSs which expects the student to be able to make informed judgments about personal artworks and the artworks of others. Each TEKS is asking that the student apply the skill of evaluation and judgment to the appropriate discipline. The skill being utilized can align these two TEKSs for the purposes of integrated curriculum.

#### *Seventh Grade Mathematics*

Appendix B, Map B-5 shows the alignment between seventh grade mathematics TEKS and seventh grade visual art TEKS. There is one aligning mathematics TEKS which appears to align with one of the two visual arts TEKSs in the area of perception. The mathematics TEKS

states that the student should be able to use Grade 7 mathematics to identify and apply mathematics to everyday experiences and activities in and outside of school, including with other disciplines and other mathematical topics. This appears to align with the visual art TEKS which requires students to develop and organizes ideas from the environment by illustrating themes from direct observation, personal experience, and community events. In each of these TEKSs, the students are being asked to use and develop their skills of observation in the given discipline. For the purpose of curriculum integration, the skill of observation aligns the two TEKSs.

There are two seventh grade mathematics TEKSs which appear to align with the three seventh grade visual arts TEKSs in the area of Creative Expression. The first mathematics TEKS states that students should be able to sketch three-dimensional figures when given the top, side, and front views. While this is a geometry TEKS, it has a relationship to the visual art TEKS which requires that students should be able to produce drawings using a variety of art materials and tools in traditional and experimental ways. In addition, this TEKS aligns with the visual art TEKS which expects students to incorporate design into artworks for use in everyday life. This mathematics TEKS has a relationship to the skills associated with drafting. The skill of drafting is a traditional and valuable form of drawing with applications in mathematics and in the design world, making an excellent opportunity for curriculum integration. The second potential aligning mathematics TEKS states that the student will select or develop an appropriate problem-solving strategy from a variety of different types in order to solve problems connected to everyday experiences; among the types listed is drawing a picture, looking for a pattern, acting it out, and making a table. Each of these creative problem solving solutions appears to align with the three visual arts TEKSs which require that the student express a variety of ideas based on personal experiences and observations. The student is expected to incorporate design into

artworks for use in everyday life. And the student is expected to produce drawings, paintings, prints, sculptures, ceramics, fiber art, photographic imagery, and electronic media-generated art using a variety of art media and materials in both traditional and non-traditional ways. The expectation in the mathematics problem solving TEKSs is that the student pulls from their creative sources to solve problems. Because the visual arts are often based in problem solving, there is potential for the two subjects to be integrated. The language of the mathematics TEKS, by including drawing a picture, makes the integration with the visual arts possible, although the potential activities are not limited to drawing; the aligning skill between the two is creativity.

There were no aligning Historical/Cultural Heritage TEKSs between seventh grade visual arts and seventh grade mathematics. One mathematics TEKS aligns with the two visual arts TEKSs for Response and Evaluation. The mathematics TEKS expects that the student use a problem-solving model which includes evaluating the problem's solution for reasonableness. This appears to align with two of the visual art TEKSs, which expect the student to be able to make informed judgments about personal artworks and the artworks of others by analyzing and comparing relationships, including meaning. Each TEKS is asking that the student apply the skill of evaluation and judgment to the appropriate discipline. The skill being utilized can align these two TEKSs for the purposes of an integrated curriculum.

#### *Eight Grade Mathematics*

Appendix B, Map B-6 shows the alignment between the eighth grade mathematics TEKS and the eighth grade visual art TEKS. There was one aligning mathematics TEKS for perception. It states that the student should be able to use Grade 8 mathematics to identify and apply mathematics to everyday experiences and activities in and outside of school, including with other disciplines and other mathematical topics. This aligns with one of the two visual art

TEKSs in perception, which require students to develop and organize ideas from the environment by illustrating themes from direct observation, personal experience, and community events. In each of these TEKSs, students are being asked to apply the subject to their everyday experiences and to develop the skill of observation. For the purpose of curriculum integration, the aligning skill between the two is observation.

There was one eighth grade mathematics TEKS which aligned with the three eighth grade visual arts TEKSs in the area of Creative Expression. The mathematics TEKS states that students will select or develop an appropriate problem-solving strategy from a variety of different types in order to solve a problem from their everyday experience; among the types listed is drawing a picture, looking for a pattern, acting it out, and making a table. Each of these creative problem solving solutions align with the three visual arts TEKSs. The clearest alignment is in the application of design skills to communicate effectively. In problem solving and presenting a solution, clear communication is a valuable skill for the student to demonstrate. The second and third visual art TEKSs state that the student is expected to create artworks with personal themes and the student is expected to select appropriate art materials and tools to interpret subjects or themes when producing various works of art. These are not as directly related but there is a potential for alignment because of the mathematics TEKSs focus on the development of the student's creative problem solving skills. Creative problem solving is the aligning skill as it relates to integrated curriculum.

There were no aligning Historical/Cultural Heritage TEKSs between the eighth grade visual arts and the eighth grade mathematics TEKSs. There was one mathematics TEKS which appears to align with the two visual arts TEKSs for Response and Evaluation. The mathematics TEKS requires the student to use a problem-solving model which includes evaluating the

problem’s solution for reasonableness. This has the potential to align with the visual art TEKSs which expects the student to be able to make informed judgments about personal artworks and the artworks of others while utilizing critical attributes to analyze with the teacher or peers’ personal artworks in progress. This act of judging is one in the same regardless of the discipline it is being applied to. The skills of judgment and evaluation being utilized can align these two TEKSs for the purposes of integrated curriculum.

*Mathematics Summary*

Alignment between the visual art TEKS and the mathematics TEKS occurred at all three grade levels. Table 2 summarizes the alignments found. The most alignments (4) occurred in the category of Creative Expression, one at the sixth and eighth grades and two at the seventh grade. One alignment was found for Perception at each grade level and one alignment was found for Response and Evaluation. No alignments were found between the Historical/Cultural TEKS and the mathematics TEKSs.

Table 2

*Alignment between Visual Art TEKS and Mathematics TEKS*

	Perception	Creative Expression	Historical / Cultural	Response & Evaluation
Sixth Grade	1	1	0	1
Seventh Grade	1	2	0	1
Eighth Grade	1	1	0	1

As with science, it was found that in mathematics, the alignments are able to occur because of a commonality in the required skill set. It was found that among the aligning TEKSs,

three of them repeated in all three years, although they were labeled with different numbers and letters in each year. The first TEKS expects students to apply mathematics to experiences outside of school and within other disciplines, the second expected students to use a problem-solving model to evaluate a solution for reasonableness, and the third expected students to solve a problem using a variety of methods, including drawing a picture, looking for a pattern, and acting it out. Only one of the aligning TEKS, 8(A), did not repeat in multiple years and this was related to geometry.

### English Language Arts and Reading

#### *Sixth Grade English Language Arts and Reading*

Appendix B, Map B-7 shows the alignment between sixth grade English language arts and reading TEKS and sixth grade visual art TEKS. No aligning TEKSs were found between sixth grade English language arts and reading and sixth grade visual arts in the area of Perception. However, three English language arts and reading TEKSs align with two of the three visual arts TEKSs in the area of Creative Expression. The first aligning TEKS states that students are expected to write literary texts to express their ideas and feelings about real or imagined people, events, and ideas by writing imaginative stories that include specific literary components. The second English language arts and reading TEKS that aligns states that students will again express their ideas and feelings but this time by writing poems using specific literary techniques. The third aligning TEKS expects students to be able to write about their own experiences by writing a personal narrative that has a clearly defined focus and that communicates the importance of or reasons for actions and/or consequences. Each of these TEKSs aligns with two visual art TEKSs in the area of Creative Expression: the student is expected to express a variety of ideas based on personal experience and direct observations and

to demonstrate technical skills effectively, using a variety of art media and materials. In each group of TEKSs, students are being asked to tap into their creativity to express themselves and use the appropriate tools and techniques of the discipline to express that creativity. In each situation, the skill set being used is the same. Creativity is the underlying principle which aligns these TEKSs.

There are two sixth grade English language arts and reading TEKSs which align with the three sixth grade visual arts TEKSs for Historical/cultural Heritage. The first English language arts and reading TEKS states that the students should be able to compare and contrast the historical and cultural settings of two literary works. The second states that students should be able to analyze and draw conclusions about the cultural and historical contexts in a text to support their understanding. In addition, they are expected to compare and contrast different authors writing on the same topic. These two TEKSs align with two of the three visual art TEKSs which state that the student should (1) demonstrate an understanding of art history and culture as records of human achievement by identifying in artworks the influence of historical and political events and (2) be able to compare specific artworks from a variety of cultures. The alignment between these TEKSs lies in their focus on identifying the historical and cultural context in works and in the comparisons they expect the student to make. These skills are essentially the same regardless of the discipline they are being applied to and the historical facts remain the same in all subjects.

There were five sixth grade English language arts and reading TEKSs which appear to align with the two sixth grade visual art TEKSs for Response and Evaluation. The first states that students are expected to participate in student-led discussions, considering suggestions from group members and identifying points of agreement and disagreement. This aligns with the

visual art TEKS which expects students to conduct in-progress critiques of personal artworks. The act of critiquing and having group discussions focuses on the same skills of communication and judgment. The second through fifth English language arts and reading TEKSs which align state the following: students are expected to use comprehension skills to analyze how words, images, graphics, and sounds work together to impact meaning. They are expected to explain messages conveyed in various forms of media; recognize how various techniques influence viewers' emotions; critique persuasive techniques (e.g., testimonials, bandwagon appeal) used in media messages; and analyze various digital media venues for levels of formality and informality. This group of TEKSs aligns with both of the visual arts TEKSs for the Response and Evaluation strand. The first, which was previously stated, focuses on the in-progress critique and the second expects students to be able to analyze original artworks of all types and draw conclusions about formal properties and historical and cultural contexts. Between these two sets of TEKSs, students are being asked to make judgments about meaning, influence on the viewer, and formal properties which unifies them for the purposes of curriculum integration.

#### *Seventh Grade English Language Arts and Reading*

Appendix B, Map B-8 shows the alignment between seventh grade English language arts and reading TEKS and seventh grade visual art TEKS. There were no aligning TEKSs between English language arts and reading and visual arts for the strand of Perception. There are three English language arts and reading TEKSs that align with the visual arts TEKSs in the area of Creative Expression. The first aligning TEKS states that students are expected to write literary texts to express their ideas and feelings about real or imagined people, events, and ideas by writing imaginative stories that include specific literary components. The second aligning English language arts and reading TEKS states that students will express their ideas and feelings



about real or imagined people, events and idea, in this case, by writing poems using specific literary techniques. The third aligning TEKS expects students to be able to write about their own experiences by writing a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences. Each of these TEKSs aligns with two of the three visual art TEKSs in the area of Creative Expression. The first states that the student is expected to create artworks based on direct observations, personal experience, and imagination. The second expects students to do so using a variety of techniques and media in both traditional and nontraditional ways. In each discipline students are utilizing their creativity to express themselves and then using the appropriate tools and techniques of the discipline to articulate their ideas. Each set of TEKSs requires the same skill of creativity and expression to be acquired by the learner, which is the underlying principle that aligns these TEKSs.

There are two English language arts and reading seventh grade TEKSs which align with the three visual arts seventh grade TEKSs for Historical/cultural Heritage. The first English language arts and reading TEKS states that students are expected to be able to analyze how place and time influence the theme or message of a literary work. The second states that students should be able to analyze the author's purpose in cultural, historical, and contemporary contexts and to provide evidence from the text to support their understanding. These two TEKSs align with two of the three visual art TEKSs which state that the student should (1) demonstrate an understanding of art history and culture as records of human achievement by analyzing ways that international, historical, and political issues influence artworks and (2) be able to analyze selected artworks to determine cultural contexts. The focus on identifying the historical and cultural context in works, be they literary or visual, is the same skill for the purpose of

curriculum integration, and the historical facts that students are expected to know and to apply are the same regardless of the discipline.

There were four seventh grade English language arts and reading TEKSs which appear to align with the two seventh grade visual art TEKSs for Response and Evaluation. They state that students are expected to (1) interpret both explicit and implicit messages in various forms of media; (2) interpret how visual and sound techniques influence the message; (3) evaluate various ways media influences and informs audiences; and (4) assess the correct level of formality and tone for successful participation in various digital media. This group of TEKSs aligns with both visual arts TEKSs in the Response and Evaluation area, the first which asserts that students should be able to analyze and compare relationships, such as function and meaning, in personal artworks and the second which expects students to be able analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent. Between these two sets of TEKSs in each discipline, the student is being asked to make judgments about meaning, influence on the learner, and formal properties, as well as audience interaction. This alignment provides a solid base upon which to integrate the curriculum.

#### *Eighth Grade English Language Arts and Reading*

Appendix B, Map B-9 shows the alignment between eighth grade English language arts and reading TEKS and eighth grade visual art TEKS. There are no aligning TEKSs between eighth grade English language arts and reading and eighth grade visual arts for Perception. There are three aligning English language arts and reading TEKSs with two of the three visual arts TEKSs in the area of Creative Expression. The first aligning TEKS expects students to write literary texts to express their ideas and feelings about real or imagined people, events, and ideas by writing imaginative stories that include specific literary components. The second English

language arts and reading TEKS that aligns has the same goal of expression, expecting students to write poems using specific literary techniques. The third aligning TEKS expects students to be able to write about their own experiences by writing a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences. Each of these TEKSs aligns with the both of the visual art TEKSs in the area of Creative Expression. The first expects students to express a variety of ideas based on personal experience and direct observations and the second expects them to select appropriate art materials and tools to interpret subjects or themes when producing artwork, both traditionally and experimentally. In each group of TEKSs, students are being asked to express themselves creatively and to use the appropriate tools and techniques of each discipline to express that creativity. The skills of creativity and self expression are the underlying principles which align these TEKSs.

There are four eighth grade English language arts and reading TEKSs which align with the three eighth grade visual arts TEKSs for Historical/cultural Heritage. The first English language arts and reading TEKS states that students should be able to analyze literary works that share similar themes across cultures. The second states that students should be able to compare and contrast the similarities and differences in mythologies from various cultures. The third asserts that students need to be able to explain how the values and beliefs of particular characters are affected by the historical and cultural setting of the literary work. The fourth states that students must be able to make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and to provide evidence from the text to support their understanding. These four TEKSs align with one of the three visual art TEKSs which expects the student to demonstrate an understanding of art history and culture as a record of human achievement by being able to identify cultural ideas expressed in artworks relating to

social, political, and environmental themes. The alignment between this TEKS and the four English language arts and reading TEKSs lies in their focus on cultural context and understanding in works of art and literary works. Examination and understating of culture is the same skill regardless of the discipline to which they are being applied.

There were five eighth grade English language arts and reading TEKSs which align with the two eighth grade visual art TEKSs for Response and Evaluation. The first states that students are expected to work productively with others in teams by participating productively in discussions, planning agendas with clear goals and deadlines, etc. This aligns with the visual art TEKS which expects students to conduct in-progress critiques by participating in individual and group critiques. The act of critiquing and having group discussions focuses on the same skills of communication, planning, teamwork, and judgment. The other - two through five English language arts and reading TEKSs which align state the following: students are expected to (1) evaluate the role of media in focusing attention on events and informing opinions on issues; (2) interpret how visual and sound techniques can influence the messages; evaluate the techniques used to create a point of view in media and its impact on the audience; and assess the correct level of successful participation in various digital media. This group of TEKSs appears to align with both of the visual arts TEKSs for the Response and Evaluation strand which focuses on the in-progress critique and the ability to analyze various artworks to form conclusions about formal properties, historical and cultural contexts, intents, and meanings. Between these two sets of TEKSs, students are being asked to make judgments about the meaning of works, their influence on the viewer, audience participation, and formal properties. These skills demonstrate the potential for alignment for the purposes of curriculum integration.

*English Language Arts and Reading Summary*

Alignment between the visual art TEKSs and the English language arts and reading TEKSs occurred at all three grade levels. Table 3 summarizes the alignments found. The most alignments (14) occurred in the category of response and Evaluation, five at the sixth and eighth grades and four at the seventh grade. No alignments were found for Perception at each grade level and three alignments were found at each grade level for Creative Expression. In the category of Historical/Cultural Heritage, two alignments were found in both sixth and seventh grades and four alignments were found at the eighth grade.

Table 3

*Alignment between Visual Art TEKS and English Language Arts and Reading TEKS*

	Perception	Creative Expression	Historical / Cultural	Response & Evaluation
Sixth Grade	0	3	2	5
Seventh Grade	0	3	2	4
Eighth Grade	0	3	4	5

Compared to mathematics and science, there were considerably more aligning TEKSs - a total of 31 in all of English language arts and reading. Additionally, in mathematics and science, the alignment relied entirely on the overlapping of common skills; this was usually the case in English but occasionally there were explicit activities, such as the group critique, which aligned the curriculum. It was also found that among the aligning TEKSs, nine of them repeated in all three years. There TEKSs expected the student to be able to:

- 1) analyze how place and time influenced a literary work
- 2) draw conclusions about the author's purpose in cultural, historical, and contemporary contexts
- 3) interpret messages in various forms of media
- 4) interpret how visual techniques influence messages
- 5) evaluate how media influences audiences
- 6) assess successful participation in digital media
- 7) write an imaginative story with various literary techniques
- 8) write a poem using various literary techniques
- 9) write a narrative about their own experiences

One TEKS repeated in sixth and eighth grade but was not present in seventh grade: it expects students to work productively with others in teams by having discussions, planning agendas, and other tasks. Two of the aligning TEKSs were present in eighth grade only; they were both related to cultural heritage.

## Social Studies

### *Sixth Grade Social Studies*

The results of the content analysis of the sixth grade social studies TEKS and visual arts TEKS are presented in Appendix B, Map B-10-A and B-10-B. The analysis reveals that there are no sixth grade social studies TEKSs which align with the two visual art TEKSs in the area of Perception. Within the area of Creative Expression, there is one social studies TEKS that aligns with one of the three visual art TEKSs. It expects students to create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies, for the purposes of communication. This aligns with the visual art TEKS which expects students to express

ideas through original artworks, using a variety of media. Each TEKS is requiring students to become adept at communicating and expressing themselves using visual media.

In the area of Historical / Cultural Heritage, 17 of the sixth grade social studies TEKSs aligned with the three visual arts TEKSs. These TEKSs fall under two strands within social studies - History and Culture. The first group of TEKSs, in the History strand, states the following: the student is expected to (1) analyze the historical background of contemporary societies and evaluate relationships between the past and present; (2) explain the significance of individuals or groups from the past and present; and (3) describe the influence of individuals and groups on historical and contemporary societies. This group of TEKSs aligns with the visual art TEKS which expects students to demonstrate an understanding of art history and culture as records of human achievement and be able to identify the influence of historical and political events. In each of these TEKSs, the student is being asked to use the same skills of historical inquiry and cultural understanding and apply them to different domains of knowledge. Historical facts, once learned, remain the same regardless of the discipline. The cultural components of these TEKSs allow them to have cross disciplinary applications. With the next 14 social studies TEKSs that align with the visual art TEKSs, students are being asked to focus on culture. The first two state that the student is expected to (1) describe some traits that define cultures and (2) analyze the similarities and differences among selected world societies. The next two expect students to identify institutions basic to all societies and to compare characteristics of institutions in selected contemporary societies. The next six expect students to understand relationships that exist among world cultures by explaining aspects that link or separate cultures and societies, explaining the impact of political boundaries that cut across culture regions, analyzing how culture traits spread, explaining why cultures borrow from each other, evaluating how cultural

borrowing affects cultures, and evaluating the consequences of improved communication among cultures. The last four TEKSs expect students to understand the relationship that exists between artistic, creative, and literary expressions and the societies that produce them by explaining the relationships that exist between societies and their architecture, art, music, and literature; relating ways in which contemporary culture has been influenced by the past; describing ways society has influenced creative expression; and identifying examples of art, music, and literature that have transcended societal boundaries. Each of these social studies TEKSs related to culture aligns with the visual art TEKS which expects students to be able to compare specific artworks from a variety of cultures. The development of the cultural understanding skills required to discuss and compare cultures is at the heart of each of these TEKSs, providing the basis for alignment for the purpose of curriculum integration.

In the category of Response and Evaluation, one sixth grade social studies TEKS emerged for alignment with the two visual art TEKSs. The social studies TEKS expects students to be able follow the correct problem-solving process including evaluating the effectiveness of the solution. The similar visual art TEKSs asks students to be able make informed judgments by conducting analyses and critiques of personal artworks analyzing original artworks of others. Each TEKS requires the student to develop critical thinking, evaluation, and judgment while evaluating the effectiveness of the solution to a problem. In the case of social studies, the problem is related to social studies; in the case of visual arts, the problem is related to evaluating the effectiveness of the artwork. While the students are expected to apply the skill of evaluation to different domains of knowledge, the intended outcome is the same. The relationships between the skill sets described here demonstrate the potential for alignment between these TEKSs for the purpose of curriculum integration.



### *Seventh Grade Social Studies*

Appendix B, Map B-11 shows the alignment between seventh grade social studies TEKS and seventh grade visual art TEKS. The analysis reveals that there are no seventh grade social studies TEKSs which align with the two visual art TEKSs in the area of Perception. Within the area of Creative Expression, there are two social studies TEKSs that align with two of the three visual art TEKSs. The first expects students to transfer information from one medium to another, including written to visual and statistical to written or visual. The second expects students to create written, oral, and visual presentations of social studies information. These TEKSs align with the visual art TEKS which expects students to express ideas through original artworks, based on direct observations, personal experience, and imagination and the visual art TEKS which expects students to incorporate design into artworks for use in everyday life. Each TEKS requires students to become adept at communicating and expressing themselves using visual media.

In the area of Historical/Cultural Heritage at the seventh grade level, there are 24 social studies TEKSs that align with three of the visual arts TEKSs. These TEKSs fall under two strands within social studies: History and Culture. The first group of 23 TEKSs, in the History strand, all relate to the student's understanding of specific historical points in Texas history. For example, the student is expected to identify the major eras in Texas history and to describe their defining characteristics. Each of the 23 TEKSs relates to a detailed expectation in relation to Texas history. This group of TEKSs appears to align with the visual art TEKS which expects students to demonstrate an understanding of art history and culture as records of human achievement and to be able to analyze ways that international, historical, and political issues influence artworks. In each of these TEKSs, the student is being asked to use the same skills of

historical knowledge and apply them to different domains. Historical facts are the same regardless of the discipline to which they are applied. The twenty-fourth social studies TEKSs that aligns with the visual art TEKSs is in the area of Cultural/Historical Heritage where the expectation is that the student to be able to explain how the diversity of Texas is reflected in a variety of cultural activities. This appears to align with the visual art TEKS which expects students to be able to analyze artworks to determine cultural contexts. The development of the cultural understanding and knowledge of historical facts is the underlying skill which aligns these sets of TEKSs for the purpose of curriculum integration.

In the category of Response and Evaluation, one seventh grade social studies TEKS emerged for alignment with the two visual art TEKSs in the category. The social studies TEKS expects students to be able follow the correct problem-solving process, including evaluating the effectiveness of the solution. The similar visual art TEKSs ask students to be able make informed judgments about artwork by analyzing artwork and forming conclusions about formal properties, historical and cultural contexts, and intent. Each TEKS requires the student to develop critical thinking, evaluation, and judgment while evaluating the effectiveness of the solution to a problem. In the case of social studies, the problem and solution are inherent in social studies; in the case of visual arts, the problem lies in the evaluation of the effectiveness of the artwork. While students are expected to apply the skill of evaluation to different domains of knowledge, the intended outcome is the same, which exhibits the potential for alignment between these TEKSs for curriculum integration.

#### *Eighth Grade Social Studies*

The results of the content analysis of the eighth grade social studies TEKS and visual arts TEKS are presented in Appendix B, Map B-12. The analysis reveals that there are no eighth

grade social studies TEKSs which align with the two visual art TEKSs in the area of Perception. Within the area of Creative Expression at the eighth grade level, there are two social studies TEKSs that align with two of the three visual art TEKSs. The first expects students to transfer information from one medium to another, including written to visual and statistical to written or visual. The second expects students to create written, oral, and visual presentations of social studies information. This aligns with the visual art TEKS which expects students to express themes found through direct observation, personal experiences, and imagination through original artworks and the visual art TEKS which expects students to apply design skills to communicate ideas and thoughts effectively in everyday life. Each TEKS requires students to become proficient at visual communication which provides the basis for alignment.

In the area of Historical/Cultural Heritage at the eighth grade level, there were 14 social studies TEKSs that align with the three visual arts TEKSs. These TEKSs fall under two strands within social studies: Culture and Science, Technology, and Society. The first group of TEKSs, in the Culture strand, all expect students to demonstrate an understanding of a specific area of cultural knowledge related to the time periods and regions they are studying during the year. For example, the first expects students to identify selected racial, ethnic, and religious groups that settled in the United States and the settlers' reasons for immigration. The expectations include detailed cultural knowledge and align with one of the three visual art TEKSs, which expects students to be able to identify cultural ideas expressed in artworks relating to social, political, and environmental themes. The cultural knowledge required to discuss and compare artworks is the same detailed cultural knowledge that is being asked of the students in the social studies TEKSs. In the social studies strand of Science, Technology, and Society, there was one TEKS which aligns with a visual art TEKS. It states that the student is expected to compare the

effects of scientific discoveries and technological innovations that have influenced daily life throughout U.S. history. This aligns with the visual art TEKS which states that students are expected to analyze the ways in which electronic media/technologies have influenced art. It is the historical understanding of the new technologies that aligns these two TEKSs. Additionally, there are 34 individual social studies TEKSs in the social studies strand of History but I was unable to make alignments between these at the eighth grade level because none of the visual art TEKSs contain a specific history component beyond that of the influence of electronic media/technologies. Cultural and historical knowledge are applicable to multiple disciplines and the factual information can be applied in a variety of ways; in this case, they are the basis for alignment in curriculum integration.

In the category of Response and Evaluation, one eighth grade social studies TEKS emerged for alignment with the two visual art TEKSs in the category. The social studies TEKS expects students to be able follow a problem-solving process through to completion, including evaluating the effectiveness of the solution. The first visual art TEKSs expects students to be able make informed judgments by analyzing personal artworks in progress and to participate in critiques. The second expects students to analyze artworks and form conclusions about formal properties, historical and cultural contexts, intents, and meanings. In this case, each of the TEKSs expects the student to demonstrate critical thinking, evaluation, and judgment while evaluating the effectiveness of the solution. The problem is different for each discipline. In the case of visual arts, students are expected to evaluate the effectiveness of the examined artwork while in the social studies, students are expected to evaluate the effectiveness of a solution to a problem within a social, historical or geographical context. Regardless of the discipline, the goal

of these activities is to develop a student's judgment and critical thinking skills, which presents the possibility for alignment between the two sets of TEKSs for curriculum integration.

*Social Studies Summary*

Alignment between the visual art TEKS and the social studies TEKS occurred at all three grade levels. Table 4 summarizes the alignments found. The most alignments (55) occurred in the category of Historical / Cultural Heritage, 17 at sixth grade, 24 at seventh grade, and 14 at the eighth grade. A total of three alignments were found for Response and Evaluation with one at each grade level and a total of five alignments were found for Creative Expression with one at sixth grade and two each at seventh and eighth grade. No alignments were found between the Perception TEKSs and the science TEKSs.

Table 4

*Alignment between Visual Art TEKS and Social Studies TEKS*

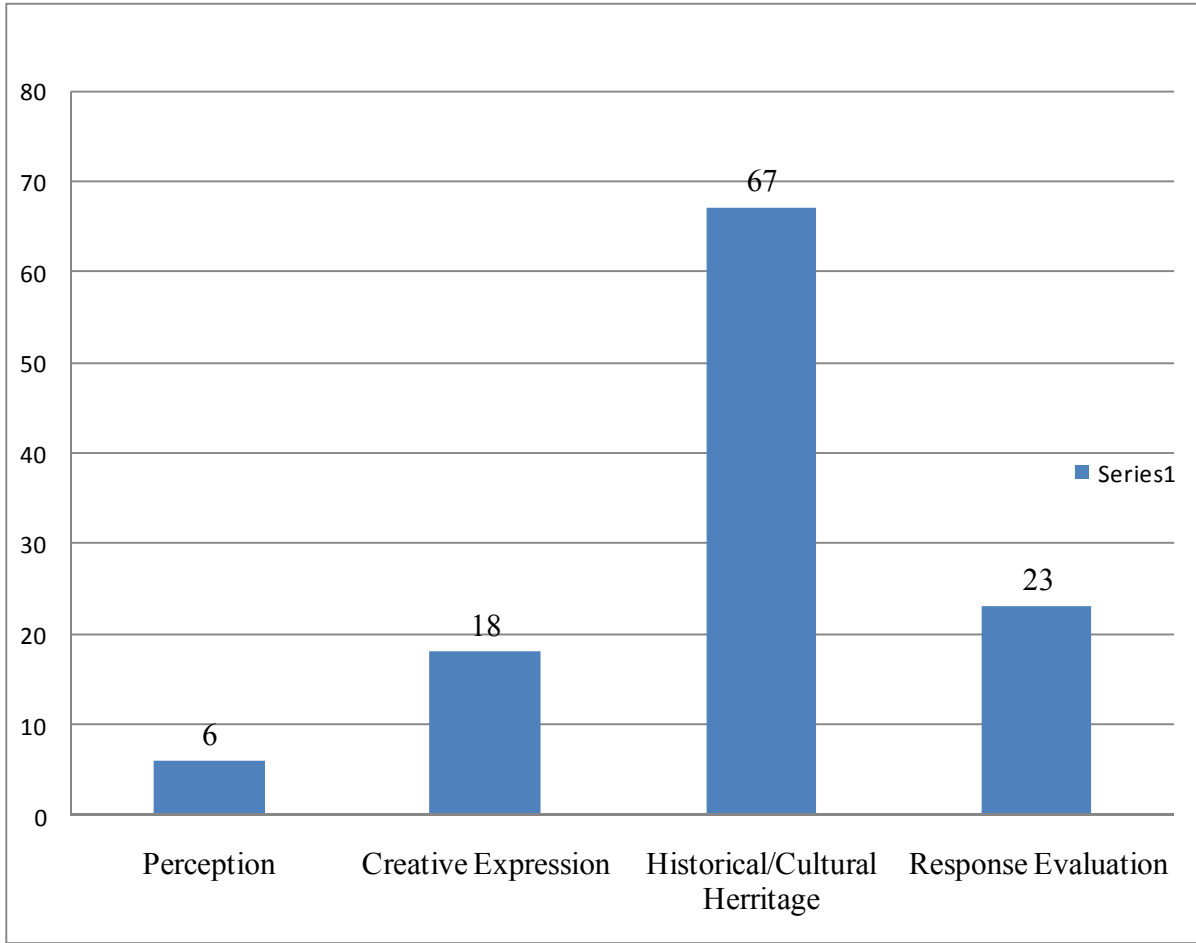
	Perception	Creative Expression	Historical / Cultural	Response & Evaluation
Sixth Grade	0	1	17	1
Seventh Grade	0	2	24	1
Eighth Grade	0	2	14	1

Social studies had the most aligning TEKSs with a total of 63. While it was common to align the TEKSs based on the skill in the language of the TEKS, there is also potential in the social studies to align with the activity because so many of the TEKSs address specific information the student must know about history, such as dates and times. It was found that among the aligning TEKSs, one of them repeated in all three years although it had different

numbers assigned to it in different years. In this TEKS, students are expected to use the problem process and evaluate the effectiveness of the solution. There were two TEKSs which repeated in two of the three years,; the first expected students to transfer information from one medium to another, including written to visual and the second expected students to create written, oral, and visual presentations of social studies information. The remainder of the aligning TEKSs did not repeat, but they all fell into the strands of either History or Culture and consequently the subject of the TEKS was not repeated year after year because students moved on to new historical or cultural content, but the strands within social studies were consistent.

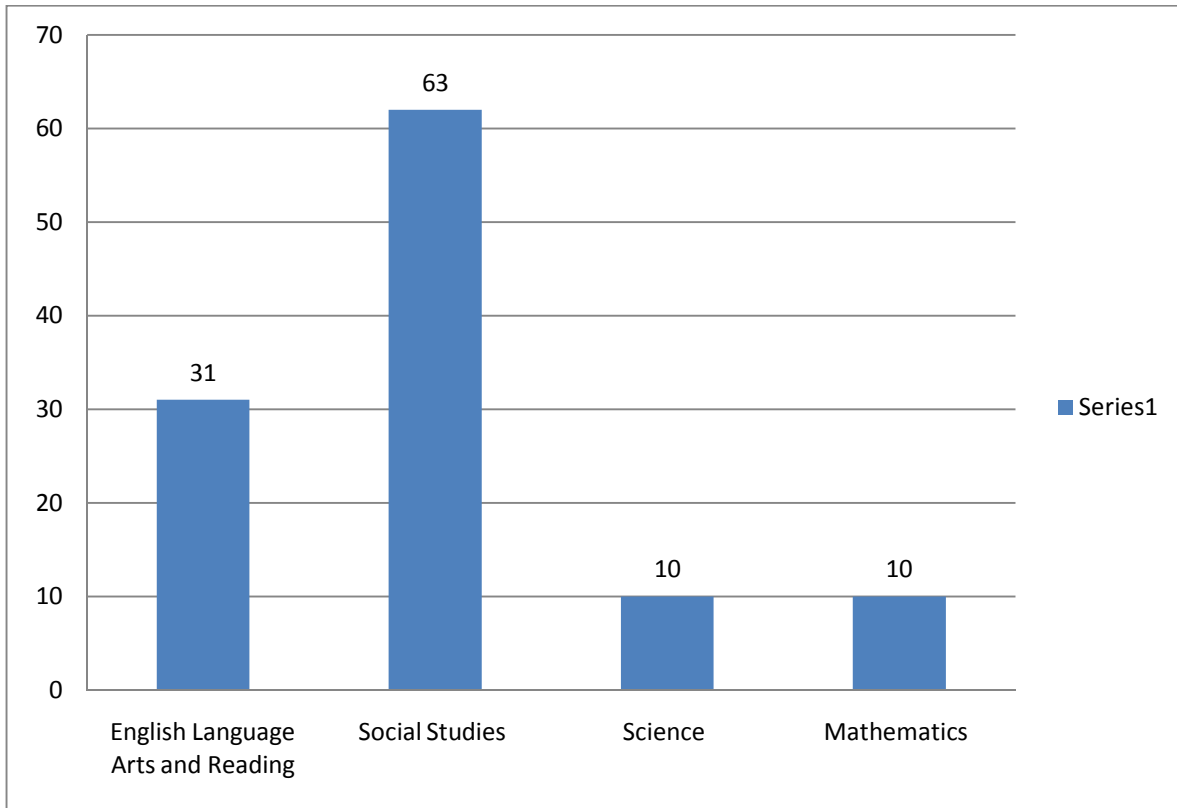
### Summary

Figure 1 shows the total number of core TEKSs that aligned with each strand. It was found that, in total, six TEKSs from all the core subjects aligned with the visual arts strand of perception. Eighteen TEKSs from all the core subjects aligned with the visual arts strand of Creative Expression, and sixty-seven core TEKSs aligned with the visual art strand of Historical/Cultural Heritage. Twenty-three core TEKSs were found to align with the visual arts strand of Response and Evaluation.



*Figure 1.* Total number of core TEKS that aligned in each strand.

Figure 2 shows the total number of core TEKSs that aligned for each subject. Thirty-one TEKSs from English language arts and reading aligned with the visual arts TEKSs. Sixty-three TEKSs from social studies aligned with the visual arts TEKSs. Ten TEKSs from science and ten TEKSs from mathematics aligned with the visual arts TEKSs.



*Figure 2.* Total number of core TEKS that aligned in each subject.

Historical and Cultural Heritage and social studies are the highest aligning categories in each of these charts. Social studies had the most aligning TEKSs in the category of historical and cultural heritage, which may have influenced the results. Additionally, mathematics was the only subject without any aligning TEKSs in this category. The next highest categories are English language arts and reading and Response Evaluation. English language arts and reading had the most aligning TEKSs in the category of Response and Evaluation and no subject lacked an alignment with this category. Possible reasons for the outcomes of this data will be addressed in the following section.



## CHAPTER 5

### SUMMARY AND CONCLUSIONS

#### Summary

Current curriculum development trends focus on a relevant curriculum, centered on the student. Integrated curriculum claims to provide this type of student-centered education, but its application often falls short, particularly in a standards-based educational environment. Uncovering stumbling blocks to integrated curricula is critical to overcoming such obstacles. Among the pitfalls of integration, classroom teachers find integration intimidating in conjunction with the standards-based system in which they work. They have little knowledge of how the standards in different disciplines might align. This study focuses on an examination of the standards and the potential for the development of a meaningful and integrated middle school art curriculum. A review of the literature reveals that, despite the positive research showing the benefits of integrated curriculum, there is only a smattering of integrated art programs and initiatives across the country. There are no long-term, wide-spread initiatives for arts integration at the secondary level. Initially, it must be demonstrated that the arts and the core have the potential to be integrated in this system. Additionally, the current standards based climate places the responsibility for successful arts integration in the lap of the arts teacher (Mishook & Kornhaber, 2006).

The purpose of the proposed study was to examine the middle school visual art TEKSs and the core TEKSs with regard to potential learning activities to determine if there was alignment between the two that can provide a basis for curriculum integration. The research questions were:

1. What are the potential common learning activities, if any, between the visual art TEKS and the science TEKS, in Grades 6, 7, and 8?
2. What are the potential common learning activities, if any, between the visual art TEKS and the mathematics TEKS, in Grades, 6, 7, and 8?
3. What are the potential common learning activities, if any, between the visual art TEKS and the English language arts and reading TEKS, in Grades 6, 7, and 8?
4. What are the potential common learning activities, if any, between the visual art TEKS and the social studies TEKS, in Grades, 6, 7, and 8?

A descriptive, qualitative content analysis was used to examine the middle school visual arts and core Texas Essential Knowledge and Skills (TEKS) to determine the potential common learning activities that can be aligned between the two. The I accessed the documents available on the Texas Education Agency website in order to examine the TEKS in the visual arts, science, mathematics, and English language arts for common standards and common potential learning activities.

Thematic content analysis of the language present in the TEKS was used to analyze the standards in science, mathematics, English language arts and reading, and social studies and assign them to one of the four strands of the visual art TEKS, if appropriate (Krippendorf,1980). The four visual arts strands are: Perception, Creative Expression, Historical/Cultural Heritage, and Response and Evaluation. The data were then organized in the form of curriculum alignment charts. This was done at the sixth, seventh and eighth grade levels.

Alignment between the visual art TEKS and the four core subjects of science, mathematics, English language arts and reading, and social studies TEKSs occurred at all three grade levels. Table 5 summarizes the total number of alignments found in each subject. Social

studies had the most aligning TEKSs with a total of 63. It was common to align the TEKSs in social studies based on the skills described in the language of the TEKSs, as the students are expected to apply those skills in different domains of knowledge with the intended outcome being the same. It was found that there is also potential for the teacher to align standards based on the classroom activity because so many of the social studies TEKSs address specific information the student must know about history, such as dates and times. The next highest aligning subject was English language arts and reading with a total of 31 alignments identified. Again it was most common to align these TEKSs based on the skills described in the language of the TEKSs. Occasionally there were more clearly implied activities such as the group critique which aligned directly with the visual arts standards. Mathematics and Science each had 10 alignments with the visual art TEKSs. It was found that in the sciences, the aligning TEKSs often share an underlying skill; the relationships between the skill sets described demonstrate the potential for alignment. As with science, the alignments in mathematics are able to occur because of a commonality in the required skill set.

Table 5

*Total Number of Alignments by Subject*

English	Social Studies	Science	Mathematics
31	63	10	10

Table 6 summarizes the strands in which the alignments were found. The most alignments (68) occurred in the category of Historical / Cultural Heritage, with the majority occurring between the visual arts TEKSs and the social studies TEKSs. It was evident that the quantity of Historical/Cultural Heritage alignments occurring between the visual arts and social studies was due to the emphasis that social studies places on history and culture. Apart from

social studies, there were 13 aligning TEKSs in both science and English language arts and reading. Both of these subjects had several TEKSs spread over sixth, seventh, and eighth grade that emphasized skills consistent with the student having an understanding of history and culture that, when integrated intentionally, could be applied to the core discipline as well as the visual arts. The only subject that did not have an alignment in this area was mathematics. The majority of mathematics TEKSs was specific to mathematical concepts, skills and techniques that the students were expected to master; consequently, there were no TEKSs for these grade levels which focused on the students gaining an understanding of the ways in which history or culture have impacted mathematics or the ways mathematics has impacted history and culture. Without TEKSs of this nature, there was not a possibility for alignment.

Table 6

*Number of Alignments by Stand and Subject*

	Perception	Creative Expression	Historical / Cultural	Response & Evaluation
Science	3	0	5	3
Mathematics	3	4	0	3
English	0	9	8	14
Social Studies	0	5	55	3

The next most alignments (23) occurred in the category of Response and Evaluation. All four core subjects had multiple TEKSs which aligned within this area, pointing to the emphasis that each of the core subjects and the visual arts place on the skills of critical thinking and

evaluation. The most alignments in the category (14) occurred between visual arts and English language arts and reading. This was largely due to a group of four TEKSs found at each grade level which focused on media literacy. Because the TEKSs repeated in all three years, this grouping accounted for 12 of the 14 aligning English TEKSs.

The third largest number of alignments (18) occurred in the category of Creative Expression. Not surprisingly, the subject with the most alignments in this category (9) was English language arts and reading. There were several TEKSs in English which repeated in all three years, which expect students to be able to express themselves creatively in various forms of writing. It was also not entirely unexpected that social studies would have the next highest number of alignments in this category (5). The aligning social studies TEKSs asked students to express themselves and their understanding of the material through visual material and other creative devices. What was surprising was that mathematics had nearly as many aligning TEKSs (4) as social studies. Mathematics did not have any TEKSs in the Historical/Cultural Heritage category and it was noted that the mathematics TEKSs generally focused on specific mathematics skills that the students need to develop. There was one TEKS at the seventh grade level which aligned; it focused on geometry which required drawing skills, and there was one TEKS which repeated in all three years which allows students to choose creative problem solving methods.

Perception was the category with the least number of alignments (6). Three (3) each occurred in science and mathematics and there were no alignments between perception and English language arts and reading and social studies. While almost all mathematics TEKSs focused on the development of a mathematics skill, there was one exception in this area. This TEKS expects students to apply mathematical concepts and understandings to the outside world

and to other disciplines. This alignment was repeated in all three years. There was also 1 science TEKS which repeated in all three years. This TEKS expected students to carry out an investigation using the appropriate observation skills and techniques. The likely reason why the alignments between the visual arts and the core subjects in this category are so low is due to the wording of the visual art TEKSs. While the strand of Perception is very general and states that students are expected to develop and organize ideas from the environment, the two TEKSs within the strand are very specific. The first asks students to illustrate themes from observation and experience and the second focuses on the use of visual art vocabulary. Even when aligning these TEKSs based on skills, it was very difficult to find core subject TEKSs that aligned with the visual art TEKSs in the way that they are currently written.

It was also found that there was significant repetition of the TEKSs in all the subjects. Among the aligning science TEKSs, three of them repeated in all three years while only two of the aligning TEKSs did not repeat in multiple years. Among the aligning mathematics TEKSs, three of them repeated in all three years and only one did not repeat in multiple years. Among the aligning English TEKSs, nine of them repeated in all three years and one repeated in sixth and eighth grade; two did not repeat. Among the aligning social studies TEKSs, one repeated in all three years,; the remainder did not repeat, but they all fell into the strands of either History or Culture. Consequently, the historical subject of the TEKS was not repeated year after year because students moved on to new historical or cultural content, but the strands within social studies remained consistent. The majority of TEKSs that did not repeat were related to specific concepts that were intended to be taught for one year, such as a specific time period in social studies or a geometry concept in mathematics. Repetition is significant because it makes it much easier for a teacher to plan and implement an integrated curriculum when there are reoccurring

alignments in the TEKSs year after year. Time commitment is often suggested as a pitfall to the integrated curriculum. If the standards in multiple subjects are repetitive and the teacher is familiar with them, it can reduce some of the time spent sifting through another discipline's TEKSs to seek out alignments for a lesson.

## Conclusions

### *Effortless Integration in the Art Classroom*

This research shows the areas of alignment that are already present in the TEKSs that a classroom teacher could use easily and immediately. As Mishook and Kornhaber's (2006) research revealed, schools may appear to value integration and specifically arts integration; however, the onus is on the teacher of the arts to make the connections between the arts and the other subjects. The results of this research provide the teacher with the necessary information to address this issue. In doing this, teachers will have an opportunity to create moments of co-equal integration with other disciplines. They will be addressing the state standards without bending to the will of the test, and they will be able to easily show administrators which standards they are aligning, obtaining the recognition that is needed for the arts. This is significant because the case study from the A+ Program identified the importance of administrative support in integration initiatives (Noblit, Corbett, Wilson, & McKinney, 2009). Most importantly, they will be able to integrate the other disciplines appropriately into their classroom, rather than being asked to take time out of their day to review fractions or punctuation. This research demonstrates an alignment between the visual art TEKS and the core TEKS, providing a basis for building this resilience. Based upon the research findings, it was concluded that true integration has the potential to benefit both teacher morale and student learning, improving the chances for a long-lived school wide arts integration initiative.

### *Potential for School-wide Integration*

This study was conducted through the lens of arts integration and the middle school art classroom because of my background. Its implications reach much further, however. Each area of alignment between the visual arts and a core subject presents potential for integration in the visual art classroom, but it presents an equal opportunity for integration in the core classroom. Additionally, there is even potential for integration across multiple subjects simultaneously if one of the TEKSs strands or one of the shared skill sets is chosen as the common integrating factor. This type of integration model would be similar to a thematic curriculum. Barrett's (2003) case study shows that thematic approaches to an integrated art curriculum can be successful. This study presents material that can easily be used by each of the four core disciplines as well as the visual arts as a springboard for integration on this level. This type of school-wide integration is beneficial for students. When teachers were questioned at the end of the TETAC project, all but 9 percent agreed that "the arts can be used successfully as a focus for curriculum integration in a school" (TETAC, 2001, p. 51). Additionally, when they were asked about the barriers that they either faced during the project or that they felt they would face in the future, "respondents considered demands of other programs or state and district assessment requirements as the most threatening barriers to continuation of the program" (TETAC, 2001, p.57). Furthermore, Wallace, Sheffield, Rennie, and Grady's (2007) study emphasized the importance of resilience if an integration program is to continue. In this situation, a teacher's ability to use the standards that are provided by the state to support their integration efforts may provide a degree of resilience to an arts integration program. Because this research shows a relationship between the state requirements of the visual arts and other core subjects, one can conclude that the benefits of integrating with the state standards would continue to be present in



a school-wide approach, but the potential for student growth in a school-wide arts integration effort would possibly be improved, over integration in the art classroom alone.

#### *Potential for Building Resiliency*

Wallace, Sheffield, Rennie, and Grady (2007) published a re-examination of two of their studies about middle school integrated curriculum in Australia and concluded that resiliency was the most important and predicting factor of an integrated curriculum program's long term success. A teacher's ability to use the standards that are provided by the state to support their integration efforts may provide a degree of resilience to an arts integration program. Additionally, the use of those standards gives support for easing fears of the elimination or subjugation of the discipline. This study demonstrates an alignment between the visual art TEKSs and the core TEKSs and one can conclude that this will help build resilience.

#### *Necessary Clarification of Definition*

The ease in ability to integrate core curriculum into the visual art curriculum can be positive for educators. As previously stated, having standards which are already demonstrated to be aligned can improve the ability for a visual art teacher to incorporate the core into the visual arts classroom. It can also help the core teacher incorporate the visual arts into the core classroom, and it can build resiliency for those making any type of integrated effort. It is difficult, however, for a teacher to know when they have reached the goals of integration, what counts as integration, and how much they should integrate. This is primarily because the literature is filled with similar words for integration and arguments about integration, and is riddled with inconsistencies related to integration. For example, Beane (1991) defined his models as integrated, referring to Jacobs' as multidisciplinary, while Jacobs (1989) referred to her own curriculum as interdisciplinary. In addition, Fogarty (1991) gave ten different possibilities

for curriculum integration models, but then named one of the ten "integrated". Based upon these findings, it was concluded that it is imperative that terms be defined clearly so that teachers, administrators and curriculum writers can make informed decisions.

*Necessary Alterations to the TEKSs Based on the Alignment*

Based on the curriculum alignment, the I concluded that there are two recommended alterations to the TEKSs, as follow; one addition to the mathematics TEKSs and one modification in the wording of the visual art TEKSs. The alteration of these TEKSs will allow for more constant alignment throughout the disciplines.

1) It was noted that the only subject that did not have an alignment in the area of Historical/Cultural Heritage was mathematics. The majority of mathematics TEKSs were specific to mathematical concepts, skills and techniques that the students were expected to gain an understanding of. Given that Historical/Cultural Heritage was the category with the most alignments and that the other three core subjects put clear emphasis in the development of these skills, it is my recommendation that consideration be given to revise the mathematics TEKSs to include a TEKS at each grade level which focuses either on the students gaining an understanding of the ways in which history or culture have impacted mathematics or the ways that mathematics has impacted history and culture. The presence of this type of TEKS would present the possibility for alignment for an integrated curriculum.

2) It was noted that the category of Perception had the fewest number of alignments between the visual arts and the core subjects, and it was theorized that this was due to the fact that while the wording of the strand of Perception is very general and states that students are expected to develop and organize ideas from the environment, the two TEKSs within the strand are very specific. The first asks students to illustrate themes from observation and experience,

while the second focuses on the use of visual art vocabulary. Even when aligning these TEKSs based on skills, it was very difficult to find core subject TEKSs that aligned with the visual art TEKSs. Given the importance of the development of the skill perception, I recommend that one or more of the visual art TEKSs be reworded to reflect the stated goal of the strand. In addition to being more consistent with the stated goals of the visual arts TEKSs, this will likely make alignment in this strand more successful for the purposes of curriculum integration.

### *Mainstreaming Integrated Art Curriculum in Texas Schools*

Dewey (1902) addressed the fractured school day, calling for a relevant interrelated environment where learning can become established. This early publication is still relevant today, because school days continue to be fractured. Remember the voice of student Sam: “It’s like you go to entirely different worlds each time you change classes. Different teachers, different students, different rooms, different information that in no way connects with your other classes or your world outside of school” (Sam, as cited in Taylor, 1999, p. 71). Still in 1999, Sam desperately wanted to make connections, as Dewey was arguing for back in 1902; it is time to listen.

The fact remains that, despite the data available both describing and supporting integrated curriculum and arts integration, these programs are not part of mainstream curriculum practices. This research demonstrates that that the state goals for the art curriculum and the core curriculum can naturally align in such a way that art teachers can incorporate them seamlessly into the classroom. Based upon this finding, I concluded that integration has the potential to occur in the visual art classroom as a regular mainstream practice in Texas public schools. Ideally, it would also be recommended that arts integration be incorporated into the core subjects; however, due to the research which shows that arts integration falls on the art teachers’ shoulders, it is my

conclusion that the process of integration be handled in steps as appropriate to avoid the pitfall of overwhelming the visual art teacher.

### Recommendations for Further Research

It is unfortunate that so little research and theory surrounding middle school integration exists because it is secondary students who so desperately want, and need, to see the connections between their education and the real world, and it is the secondary schools where we are witnessing a decline in test scores and abilities (Beane, 1991; National Commission on Excellence in Education, 1983). As a result of this study, it is apparent that there needs to be more research at the secondary level which focuses on uncovering the potential for the further development of integration models. More specifically, research regarding teachers' perceptions is needed because this is the way to effectively change curriculum, since all methods will fail without teacher support.

I encountered a significant amount of research showing that integrated curriculum models perform as well or better than standards based models (Vars, 2001). Unfortunately, many of these studies were more than 25 years old. Ideally, new studies on the validity of integrated curriculum models would be preformed to see if integration continues to meet the standards that we set for our students.

Additionally, I encountered considerable literature referencing the potential pitfalls of an integrated curriculum, including the potential budgetary concerns for a school who may be considering this form of curricula. The research was lacking in documentation of the actual costs of implementing an integrated curriculum. This information would be useful for those seeking grants, and also for administrators interested in implementing an integrated curriculum. Along the same vein, the negative literature often referred to the amount of time and teacher expertise

necessary to carry out an effective integrated curriculum; there was not a significant amount of research to demonstrate the actual amounts or levels of expertise required, which again would be useful for those attempting to implement a program of this nature.

The majority of the research on integrated curriculum was student-centered and focused on how well the students responded to the integration, with a handful of studies questioning the teachers who participated. Additional research into the experiences of teachers in integrated programs could provide important information about the potential successes and failures of integrated programs. In addition, this research could provide information about the best ways to prepare teachers for teaching in these environments. Additionally, because there is a need to define integration more clearly, there is consequently a need to find out what type of definitions teachers are currently using and how the use of different terms such as integrated, interdisciplinary, and multidisciplinary impact their teaching and curriculum development.

Finally, the considerable cost, time, and levels of expertise believed to be needed to carry out an integrated curriculum make it inaccessible to lower socioeconomic status schools with large minority populations. There was no significant amount of research showing the impact this type of learning might have on specific populations of students such as low socioeconomic, minority, or at risk. This type of research would be helpful for schools seeking funding for programs.

APPENDIX A

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS (TEKS<sub>s</sub>) FOR MIDDLE SCHOOL FINE  
ARTS, SCIENCE, MATHEMATICS, ENGLISH LANGUAGE ARTS AND READING, AND  
SOCIAL STUDIES

The following appendix information was retrieved from the Texas Education Agency website.

Chapter 117. Texas Essential Knowledge and Skills for Fine Arts  
Subchapter B. Middle School

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Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §28.002, unless otherwise noted.

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§117.31. Implementation of Texas Essential Knowledge and Skills for Fine Arts, Middle School.

The provisions of this subchapter shall supersede §75.31(g) and §75.47 of this title (relating to Fine Arts) beginning September 1, 1998.

*Source: The provisions of this §117.31 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.32. Art, Grade 6.

(a) General requirements. When Grade 6 is part of a departmentalized middle school, students may select the following art course: Art 6.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) illustrate themes from direct observation, personal experience, and traditional events; and

(B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) express a variety of ideas based on personal experience and direct observations;

(B) describe in detail a variety of practical applications for design ideas; and

(C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) identify in artworks the influence of historical and political events;

(B) compare specific artworks from a variety of cultures; and

(C) compare career and avocational opportunities in art.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) conduct in-progress analyses and critiques of personal artworks; and

(B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.

*Source: The provisions of this §117.32 adopted to be effective September 1, 1998, 22 TexReg 4943.*



§117.33. Music, Grade 6.

(a) General requirements. When Grade 6 is part of a departmentalized middle school, students may select a music course from the following: General Music 6, Band 6, Choir 6, Orchestra 6.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(c) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) individually demonstrate characteristic vocal or instrumental timbre;

(B) use standard terminology in explaining intervals, music notation, musical instruments or voices, and musical performances; and

(C) identify music forms presented aurally and through music notation.

(2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:

(A) perform independently, with accurate intonation and rhythm, demonstrating fundamental skills and basic performance techniques;

(B) perform expressively, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and

(C) demonstrate appropriate small- and large-ensemble performance techniques during formal and informal concerts.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) sight-read simple music in treble and/or other clefs in various keys and meters;

(B) use standard symbols to notate meter, rhythm, pitch, and dynamics (manuscript or computer-generated); and

(C) identify music symbols and terms referring to dynamics, tempo, and articulation and interpret them appropriately when performing.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) create rhythmic and melodic phrases; and

(B) arrange rhythmic and melodic phrases.

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

(A) describe aurally-presented music representing diverse styles, periods, and cultures;

(B) describe music-related vocations and avocations;

(C) perform music representative of diverse cultures, including American and Texas heritage; and

(D) relate the other fine arts to music concepts.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

(A) identify criteria for evaluating performances;

(B) evaluate the quality and effectiveness of music and musical performances; and

(C) exhibit concert etiquette as an informed, actively involved listener during varied live performances.

*Source: The provisions of this §117.33 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.34. Theatre, Grade 6.

(a) General requirements. When Grade 6 is part of a departmentalized middle school, students may select the following theatre course: Theatre 6.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Through perceptual studies, students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally.

(2) Students increase their understanding of heritage and traditions through historical and cultural studies in theatre. Student response and evaluation promote thinking and further discriminating judgment, developing students who are appreciative and evaluative consumers of live theatre, film, television, and other technologies.

(c) Knowledge and skills.

(1) Perception. The student develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre. The student is expected to:

- (A) develop characterization based on sensory and emotional recall;
- (B) expand body awareness and spatial perceptions, using pantomime;
- (C) respond to sounds, music, images, and the written word, incorporating movement;
- (D) express emotions and ideas, using interpretive movements and dialogue;
- (E) imitate and synthesize life experiences in dramatic play; and
- (F) create environments, characters, and actions.

(2) Creative expression/performance. The student interprets characters, using the voice and body expressively, and creates dramatizations. The student is expected to:

- (A) demonstrate safe use of the voice and body;

(B) imagine and clearly describe characters, their relationships, and their surroundings;

(C) select movements and dialogue to appropriately portray an imaginative character drawn from personal experience, heritage, literature, and history; and

(D) dramatize literary selections in unison, pairs, and groups and incorporate dramatic elements in improvisation.

(3) Creative expression/performance. The student applies design, directing, and theatre production concepts and skills. The student is expected to:

(A) define character, environment, action, and theme, using props, costumes, and visual elements collaboratively and safely;

(B) alter space appropriately to create a suitable environment for play-making;

(C) plan brief dramatizations collaboratively; and

(D) interact cooperatively with others in brief dramatizations.

(4) Historical/cultural heritage. The student comprehends the relationship of theatre to history, society, and culture. The student is expected to:

(A) demonstrate in dramatic activities that theatre is a reflection of life; and

(B) explain the role of theatre, film, television, and electronic media in American society.

(5) Response/evaluation. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

(A) analyze and apply audience behavior at all performances;

(B) develop simple oral and written observations about visual, aural, oral, and kinetic aspects of informal play-making and formal theatre and describe these components in art, dance, and music;

(C) compare and contrast ideas and emotions depicted in art, dance, music, and theatre and demonstrate uses of movement, music, or visual elements to enhance classroom dramatization; and

(D) compare selected occupations in theatre.

*Source: The provisions of this §117.34 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.35. Art, Grade 7.

(a) General requirements. Students may select the following art course: Art 7.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) illustrate ideas from direct observation, imagination, personal experience, and school and community events; and

(B) compare and contrast the use of art elements and principles, using vocabulary accurately.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) create artworks based on direct observations, personal experience, and imagination;

(B) incorporate design into artworks for use in everyday life; and

(C) produce drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art, using a variety of art materials and tools in traditional and experimental ways.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) analyze ways that international, historical, and political issues influence artworks;

(B) analyze selected artworks to determine cultural contexts; and

(C) identify career and avocational choices in art.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) analyze and compare relationships, such as function and meaning, in personal artworks; and

(B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent.

*Source: The provisions of this §117.35 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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#### §117.36. Music, Grade 7.

(a) General requirements. Students may select a music course from the following: General Music 7, Band 7, Choir 7, Orchestra 7, Jazz Band 7, Instrumental Ensemble 7.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(c) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) demonstrate characteristic vocal or instrumental timbre individually and in groups;

(B) describe intervals, music notation, musical instruments or voices, and musical performances, using standard terminology; and

(C) identify music forms presented aurally and through music notation.

(2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:

(A) perform independently with accurate intonation and rhythm, demonstrating fundamental skills and basic performance techniques;

(B) perform expressively, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and

(C) demonstrate appropriate small- and large-ensemble performance techniques during formal and informal concerts.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) sight-read music in treble and/or other clefs in various keys and meters;

(B) notate meter, rhythm, pitch, and dynamics using standard symbols (manuscript or computer-generated); and

(C) interpret music symbols and terms referring to dynamics, tempo, and articulation when performing.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) create increasingly complex rhythmic and melodic phrases; and

- (B) arrange increasingly complex rhythmic and melodic phrases.
- (5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:
- (A) classify aurally-presented music representative of diverse genres, styles, periods, and cultures;
  - (B) describe music-related vocations and avocations;
  - (C) perform music representative of diverse cultures, including American and Texas heritage; and
  - (D) identify the relationships between the content, the concepts, and the processes of the other fine arts, other subjects, and those of music.
- (6) Response/evaluation. The student responds to and evaluates music and musical performances. The student is expected to:
- (A) design and apply criteria for evaluating the quality and effectiveness of music and musical performances;
  - (B) evaluate the quality and effectiveness of personal performances; and
  - (C) exhibit concert etiquette during live performances in a variety of settings.

*Source: The provisions of this §117.35 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.37. Theatre, Grade 7.

(a) General requirements. Students may select the following theatre course: Theatre 7.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Through perceptual studies, students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally.



(2) Students increase their understanding of heritage and traditions through historical and cultural studies in theatre. Student response and evaluation promote thinking and further discriminating judgment, developing students who are appreciative and evaluative consumers of live theatre, film, television, and other technologies.

(c) Knowledge and skills.

(1) Perception. The student develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre. The student is expected to:

- (A) develop characterization, using sensory and emotional recall;
- (B) develop and apply theatre preparation and warm-up techniques;
- (C) create expressive and rhythmic movements;
- (D) express thoughts and feelings, using effective voice and diction;
- (E) compare and contrast dramatic performances to life; and
- (F) include setting, character, and plot in improvised scenes.

(2) Creative expression/performance. The student interprets characters, using the voice and body expressively, and creates dramatizations. The student is expected to:

- (A) demonstrate safe use of the voice and body;
- (B) define characters by what they do, what they say, and what others say about them;
- (C) select movements and dialogue to portray a character appropriately; and
- (D) create and improvise collaboratively and individually stories that have a beginning (exposition), middle (climax), and ending (denouement, resolution).

(3) Creative expression/performance. The student applies design, directing, and theatre production concepts and skills. The student is expected to:

- (A) determine specific technical elements to safely provide setting and to support character and action in improvised and scripted scenes;
- (B) create elements of scenery, properties, lighting, sound, costume, makeup, and publicity appropriate to specific performances;

- (C) define the role of the director; and
- (D) direct brief dramatizations.

(4) Historical/cultural heritage. The student relates theatre to history, society, and culture. The student is expected to:

- (A) demonstrate in performances that theatre is a reflection of life in particular times, places, and cultures; and
- (B) identify how specific dramatic texts, theatre traditions, and conventions reflect theatre heritage and explains the influences of theatre, film, and television in daily American life.

(5) Response/evaluation. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

- (A) identify and demonstrate appropriate audience behavior at various types of performances;
- (B) evaluate the effectiveness of selected film and television performances;
- (C) identify visual, aural, oral, and kinetic components in art, dance, music, and theatre; compare and contrast the presentation of the same subject in art, dance, music, and theatre; and create improvisations, integrating art, dance, and/or music to express ideas and emotions; and
- (D) compare career and avocational opportunities in theatre.

*Source: The provisions of this §117.37 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.38. Art, Grade 8.

(a) General requirements. Students may select the following art course: Art 8.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for

creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) illustrate ideas from direct observation, imagination, and personal experience and from experiences at school and community events; and

(B) define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) create artworks integrating themes found through direct observation, personal experiences, and imagination;

(B) apply design skills to communicate effectively ideas and thoughts in everyday life; and

(C) select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiberart, photography/film making, and electronic media-generated art, traditionally and experimentally.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) analyze ways in which electronic media/technologies have influenced art;

(B) identify cultural ideas expressed in artworks relating to social, political, and environmental themes; and

(C) survey career and avocational opportunities in art.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques; and

(B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, intents, and meanings.

*Source: The provisions of this §117.38 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.39. Music, Grade 8.

(a) General requirements. Students may select a music course from the following: General Music 8, Band 8, Choir 8, Orchestra 8, Jazz Band 8, Instrumental Ensemble 8.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(c) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) demonstrate characteristic vocal or instrumental timbre individually and in groups;

(B) describe in detail intervals, music notation, musical instruments, voices, and musical performances, using standard terminology; and

- (C) identify music forms presented aurally and through music notation.
- (2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:
- (A) perform independently with accurate intonation and rhythm, demonstrating fundamental skills and basic performance techniques;
  - (B) perform expressively, incorporating appropriate stylistic qualities;
  - (C) perform, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and
  - (D) demonstrate appropriate small- and large-ensemble performance techniques during formal and informal concerts.
- (3) Creative expression/performance. The student reads and writes music notation. The student is expected to:
- (A) sight-read music in treble and/or other clefs in various keys and meters;
  - (B) notate meter, rhythm, pitch, and dynamics, using standard symbols (manuscript or computer-generated); and
  - (C) interpret music symbols and terms referring to dynamics, tempo, and articulation when performing.
- (4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:
- (A) create complex rhythmic and melodic phrases; and
  - (B) arrange complex rhythmic and melodic phrases.
- (5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:
- (A) classify aurally-presented music representing diverse styles, periods, and cultures;
  - (B) describe music-related vocations and avocations;
  - (C) perform music representative of diverse cultures, including American and Texas heritage; and

(D) relate the content, the concepts, and the processes of subjects other than the arts to those of music.

(6) Response/evaluation. The student responds to and evaluates music and musical performances. The student is expected to:

(A) design and apply criteria for evaluating the quality and effectiveness of music and musical performance;

(B) evaluate the quality and effectiveness of personal musical performances;

(C) apply specific criteria appropriate for the style of the music and offer constructive suggestions for improvement; and

(D) exhibit concert etiquette during live performances in a variety of settings.

*Source: The provisions of this §117.39 adopted to be effective September 1, 1998, 22 TexReg 4943.*

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§117.40. Theatre, Grade 8.

(a) General requirements. Students may select the following theatre course: Theatre 8.

(b) Introduction.

(1) Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Through perceptual studies, students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally.

(2) Students increase their understanding of heritage and traditions through historical and cultural studies in theatre. Student response and evaluation promote thinking and further discriminating judgment, developing students who are appreciative and evaluative consumers of live theatre, film, television, and other technologies.

(c) Knowledge and skills.

(1) Perception. The student develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre. The student is expected to:

- (A) improvise, using emotional and sensory recall;
- (B) apply preparation and warm-up techniques;
- (C) create expressive movement and pantomime to define space and characters;
- (D) express thoughts and feelings, using effective voice and diction;
- (E) compare dramatic performances to life; and
- (F) create setting, character, and plot in improvised and scripted scenes.

(2) Creative expression/performance. The student interprets characters, using the voice and body expressively, and creates dramatizations. The student is expected to:

- (A) demonstrate safe use of the voice and body;
- (B) analyze life interactions, choices, and responses to describe character motivation;
- (C) portray characters through familiar movements and dialogue; and
- (D) create, improvise, and record individually and collaboratively characters, setting, dialogue, and actions that have tension and suspense and that reflect a beginning (exposition), middle (climax), and ending (denouement, resolution).

(3) Creative expression/performance. The student applies design, directing, and theatre production concepts and skills. The student is expected to:

- (A) select specific technical elements for improvised and scripted scenes to suggest environment, to establish mood, and to support character and actions;
- (B) create elements of scenery, properties, lighting, sound, costume, makeup, and publicity, using visual elements (line, texture, color, space), visual principles (repetition, balance, emphasis, contrast, unity), and aural qualities (pitch, rhythm, dynamics, tempo, expression);
- (C) identify the director's role as a unifying force, problem-solver, interpreter of script, and collaborator; and
- (D) direct brief dramatizations.

(4) Historical/cultural heritage. The student relates theatre to history, society, and culture. The student is expected to:

(A) demonstrate knowledge of theatre as a reflection of life in particular times, places, and cultures; and

(B) define theatre heritage as it is preserved in dramatic text, traditions, and conventions and describe the roles of theatre, film, television, and electronic media in American society.

(5) Response/evaluation. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

(A) analyze and practice appropriate audience behavior at various types of live performances;

(B) define the terminology and process of evaluation (intent, structure, effectiveness, value) and apply this process to performances, using appropriate theatre vocabulary;

(C) identify visual, aural, oral, and kinetic components in art, dance, music, and theatre; compare character, setting, and action in art, musical theatre, dance, and theatre; and express emotions and ideas in improvisations and scripted scenes that integrate art, dance, and/or music; and

(D) compare career and avocational opportunities in theatre.

Source: The provisions of this §117.40 adopted to be effective September 1, 1998, 22 TexReg 4943.



Chapter 112. Texas Essential Knowledge and Skills for Science  
Subchapter B. Middle School

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Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §7.102(c)(4) and §28.002, unless otherwise noted.

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§112.17. Implementation of Texas Essential Knowledge and Skills for Science, Middle School, Beginning with School Year 2010-2011.

The provisions of §§112.18-112.20 of this subchapter shall be implemented by school districts beginning with the 2010-2011 school year.

*Source: The provisions of this §112.17 adopted to be effective August 4, 2009, 34 TexReg 5063; amended to be effective August 24, 2010, 35 TexReg 7230.*

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§112.18. Science, Grade 6, Beginning with School Year 2010-2011.

(a) Introduction.

(1) Science, as defined by the National Academy of Science, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

(2) Scientific hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions become theories. Scientific theories are based on natural and physical phenomena and are capable of being tested by multiple, independent researchers. Students should know that scientific theories, unlike hypotheses, are well-established and highly reliable, but they may still be subject to change as new information and technologies are developed. Students should be able to distinguish between scientific decision-making methods and ethical/social decisions that involve the application of scientific information.

(3) Grade 6 science is interdisciplinary in nature; however, much of the content focus is on physical science. National standards in science are organized as multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level

format used in Texas, the various national standards are found among Grades 6, 7, and 8. Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale.

(4) The strands for Grade 6 include:

(A) Scientific investigations and reasoning.

(i) To develop a rich knowledge of science and the natural world, students must become familiar with different modes of scientific inquiry, rules of evidence, ways of formulating questions, ways of proposing explanations, and the diverse ways scientists study the natural world and propose explanations based on evidence derived from their work.

(ii) Scientific investigations are conducted for different reasons. All investigations require a research question, careful observations, data gathering, and analysis of the data to identify the patterns that will explain the findings. Descriptive investigations are used to explore new phenomena such as conducting surveys of organisms or measuring the abiotic components in a given habitat. Descriptive statistics include frequency, range, mean, median, and mode. A hypothesis is not required in a descriptive investigation. On the other hand, when conditions can be controlled in order to focus on a single variable, experimental research design is used to determine causation. Students should experience both types of investigations and understand that different scientific research questions require different research designs.

(iii) Scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations, and the methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. Models have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.

(B) Matter and energy.

(i) Matter can be classified as elements, compounds, or mixtures. Students have already had experience with mixtures in Grade 5, so Grade 6 will concentrate on developing an understanding of elements and compounds. It is important that students learn the differences between elements and compounds based on observations, description of physical properties, and chemical reactions. Elements are represented by chemical symbols, while

compounds are represented by chemical formulas. Subsequent grades will learn about the differences at the molecular and atomic level.

(ii) Elements are classified as metals, nonmetals, and metalloids based on their physical properties. The elements are divided into three groups on the Periodic Table. Each different substance usually has a different density, so density can be used as an identifying property. Therefore, calculating density aids classification of substances.

(iii) Energy resources are available on a renewable, nonrenewable, or indefinite basis. Understanding the origins and uses of these resources enables informed decision making. Students should consider the ethical/social issues surrounding Earth's natural energy resources, while looking at the advantages and disadvantages of their long-term uses.

(C) Force, motion, and energy. Energy occurs in two types, potential and kinetic, and can take several forms. Thermal energy can be transferred by conduction, convection, or radiation. It can also be changed from one form to another. Students will investigate the relationship between force and motion using a variety of means, including calculations and measurements.

(D) Earth and space. The focus of this strand is on introducing Earth's processes. Students should develop an understanding of Earth as part of our solar system. The topics include organization of our solar system, the role of gravity, and space exploration.

(E) Organisms and environments. Students will gain an understanding of the broadest taxonomic classifications of organisms and how characteristics determine their classification. The other major topics developed in this strand include the interdependence between organisms and their environments and the levels of organization within an ecosystem.

(b) Knowledge and skills.

(1) Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards; and

(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials.

(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:

(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;

(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology;

(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers;

(D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns; and

(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;

(B) use models to represent aspects of the natural world such as a model of Earth's layers;

(C) identify advantages and limitations of models such as size, scale, properties, and materials; and

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

(4) Scientific investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:

(A) use appropriate tools to collect, record, and analyze information, including journals/notebooks, beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, triple beam balances, microscopes, thermometers, calculators,

computers, timing devices, and other equipment as needed to teach the curriculum; and

(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.

(5) Matter and energy. The student knows the differences between elements and compounds. The student is expected to:

(A) know that an element is a pure substance represented by chemical symbols;

(B) recognize that a limited number of the many known elements comprise the largest portion of solid Earth, living matter, oceans, and the atmosphere;

(C) differentiate between elements and compounds on the most basic level; and

(D) identify the formation of a new substance by using the evidence of a possible chemical change such as production of a gas, change in temperature, production of a precipitate, or color change.

(6) Matter and energy. The student knows matter has physical properties that can be used for classification. The student is expected to:

(A) compare metals, nonmetals, and metalloids using physical properties such as luster, conductivity, or malleability;

(B) calculate density to identify an unknown substance; and

(C) test the physical properties of minerals, including hardness, color, luster, and streak.

(7) Matter and energy. The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable. The student is expected to:

(A) research and debate the advantages and disadvantages of using coal, oil, natural gas, nuclear power, biomass, wind, hydropower, geothermal, and solar resources; and

(B) design a logical plan to manage energy resources in the home, school, or community.

(8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy. The student is expected to:

- (A) compare and contrast potential and kinetic energy;
- (B) identify and describe the changes in position, direction, and speed of an object when acted upon by unbalanced forces;
- (C) calculate average speed using distance and time measurements;
- (D) measure and graph changes in motion; and
- (E) investigate how inclined planes and pulleys can be used to change the amount of force to move an object.

(9) Force, motion, and energy. The student knows that the Law of Conservation of Energy states that energy can neither be created nor destroyed, it just changes form. The student is expected to:

- (A) investigate methods of thermal energy transfer, including conduction, convection, and radiation;
- (B) verify through investigations that thermal energy moves in a predictable pattern from warmer to cooler until all the substances attain the same temperature such as an ice cube melting; and
- (C) demonstrate energy transformations such as energy in a flashlight battery changes from chemical energy to electrical energy to light energy.

(10) Earth and space. The student understands the structure of Earth, the rock cycle, and plate tectonics. The student is expected to:

- (A) build a model to illustrate the structural layers of Earth, including the inner core, outer core, mantle, crust, asthenosphere, and lithosphere;
- (B) classify rocks as metamorphic, igneous, or sedimentary by the processes of their formation;
- (C) identify the major tectonic plates, including Eurasian, African, Indo-Australian, Pacific, North American, and South American; and
- (D) describe how plate tectonics causes major geological events such as ocean basins, earthquakes, volcanic eruptions, and mountain building.

(11) Earth and space. The student understands the organization of our solar system and the relationships among the various bodies that comprise it. The student is expected to:

- (A) describe the physical properties, locations, and movements of the Sun, planets, Galilean moons, meteors, asteroids, and comets;
- (B) understand that gravity is the force that governs the motion of our solar system; and
- (C) describe the history and future of space exploration, including the types of equipment and transportation needed for space travel.

(12) Organisms and environments. The student knows all organisms are classified into Domains and Kingdoms. Organisms within these taxonomic groups share similar characteristics which allow them to interact with the living and nonliving parts of their ecosystem. The student is expected to:

- (A) understand that all organisms are composed of one or more cells;
- (B) recognize that the presence of a nucleus determines whether a cell is prokaryotic or eukaryotic;
- (C) recognize that the broadest taxonomic classification of living organisms is divided into currently recognized Domains;
- (D) identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic, and mode of reproduction, that further classify them in the currently recognized Kingdoms;
- (E) describe biotic and abiotic parts of an ecosystem in which organisms interact; and
- (F) diagram the levels of organization within an ecosystem, including organism, population, community, and ecosystem.

*Source: The provisions of this §112.18 adopted to be effective August 4, 2009, 34 TexReg 5063.*

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§112.19. Science, Grade 7, Beginning with School Year 2010-2011.

(a) Introduction.

(1) Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the

knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

(2) Scientific hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions become theories. Scientific theories are based on natural and physical phenomena and are capable of being tested by multiple, independent researchers. Students should know that scientific theories, unlike hypotheses, are well-established and highly reliable, but they may still be subject to change as new information and technologies are developed. Students should be able to distinguish between scientific decision-making methods and ethical/social decisions that involve the application of scientific information.

(3) Grade 7 science is interdisciplinary in nature; however, much of the content focus is on organisms and the environment. National standards in science are organized as a multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level format used in Texas, the various national standards are found among Grades 6, 7, and 8. Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale.

(4) The strands for Grade 7 include:

(A) Scientific investigation and reasoning.

(i) To develop a rich knowledge of science and the natural world, students must become familiar with different modes of scientific inquiry, rules of evidence, ways of formulating questions, ways of proposing explanations, and the diverse ways scientists study the natural world and propose explanations based on evidence derived from their work.

(ii) Scientific investigations are conducted for different reasons. All investigations require a research question, careful observations, data gathering, and analysis of the data to identify the patterns that will explain the findings. Descriptive investigations are used to explore new phenomena such as conducting surveys of organisms or measuring the abiotic components in a given habitat. Descriptive statistics include frequency, range, mean, median, and mode. A hypothesis is not required in a descriptive investigation. On the other hand, when conditions can be controlled in order to focus on a single variable, experimental research design is used to determine causation. Students should experience both types of investigations and understand that different scientific research questions require different research designs.



(iii) Scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations, and the methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. Models have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.

(B) Matter and energy. Matter and energy are conserved throughout living systems. Radiant energy from the Sun drives much of the flow of energy throughout living systems due to the process of photosynthesis in organisms described as producers. Most consumers then depend on producers to meet their energy needs. Decomposers play an important role in recycling matter. Organic compounds are composed of carbon and other elements that are recycled due to chemical changes that rearrange the elements for the particular needs of that living system. Large molecules such as carbohydrates are composed of chains of smaller units such as sugars, similar to a train being composed of multiple box cars. Subsequent grade levels will learn about the differences at the molecular and atomic level.

(C) Force, motion, and energy. Force, motion, and energy are observed in living systems and the environment in several ways. Interactions between muscular and skeletal systems allow the body to apply forces and transform energy both internally and externally. Force and motion can also describe the direction and growth of seedlings, turgor pressure, and geotropism. Catastrophic events of weather systems such as hurricanes, floods, and tornadoes can shape and restructure the environment through the force and motion evident in them. Weathering, erosion, and deposition occur in environments due to the forces of gravity, wind, ice, and water.

(D) Earth and space. Earth and space phenomena can be observed in a variety of settings. Both natural events and human activities can impact Earth systems. There are characteristics of Earth and relationships to objects in our solar system that allow life to exist.

(E) Organisms and environments.

(i) Students will understand the relationship between living organisms and their environment. Different environments support different living organisms that are adapted to that region of Earth. Organisms are living systems that maintain a steady state with that environment and whose balance may be disrupted by internal and external stimuli. External stimuli include human activity or the environment. Successful organisms can

reestablish a balance through different processes such as a feedback mechanism. Ecological succession can be seen on a broad or small scale.

(ii) Students learn that all organisms obtain energy, get rid of wastes, grow, and reproduce. During both sexual and asexual reproduction, traits are passed onto the next generation. These traits are contained in genetic material that is found on genes within a chromosome from the parent. Changes in traits sometimes occur in a population over many generations. One of the ways a change can occur is through the process of natural selection. Students extend their understanding of structures in living systems from a previous focus on external structures to an understanding of internal structures and functions within living things.

(iii) All living organisms are made up of smaller units called cells. All cells use energy, get rid of wastes, and contain genetic material. Students will compare plant and animal cells and understand the internal structures within them that allow them to obtain energy, get rid of wastes, grow, and reproduce in different ways. Cells can organize into tissues, tissues into organs, and organs into organ systems. Students will learn the major functions of human body systems such as the ability of the integumentary system to protect against infection, injury, and ultraviolet (UV) radiation; regulate body temperature; and remove waste.

(b) Knowledge and skills.

(1) Scientific investigation and reasoning. The student, for at least 40% of the instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards; and

(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials.

(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:

(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;

(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology;

(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers;

(D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns; and

(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;

(B) use models to represent aspects of the natural world such as human body systems and plant and animal cells;

(C) identify advantages and limitations of models such as size, scale, properties, and materials; and

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:

(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum; and

(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.

(5) Matter and energy. The student knows that interactions occur between matter and energy. The student is expected to:

- (A) recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis;
- (B) demonstrate and explain the cycling of matter within living systems such as in the decay of biomass in a compost bin; and
- (C) diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids.

(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:

- (A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur;
- (B) distinguish between physical and chemical changes in matter in the digestive system; and
- (C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars.

(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:

- (A) contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still;
- (B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion; and
- (C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism.

(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:

- (A) predict and describe how different types of catastrophic events impact ecosystems such as floods, hurricanes, or tornadoes;
- (B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas; and

(C) model the effects of human activity on groundwater and surface water in a watershed.

(9) Earth and space. The student knows components of our solar system. The student is expected to:

(A) analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere; and

(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration.

(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:

(A) observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms;

(B) describe how biodiversity contributes to the sustainability of an ecosystem; and

(C) observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds.

(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:

(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification;

(B) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb; and

(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (*Geospiza fortis*) or domestic animals.

(12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:

(A) investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants;

(B) identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems;

(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms;

(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole;

(E) compare the functions of a cell to the functions of organisms such as waste removal; and

(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.

(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:

(A) investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight; and

(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance.

(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:

(A) define heredity as the passage of genetic instructions from one generation to the next generation;

(B) compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction; and

(C) recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.

§112.20. Science, Grade 8, Beginning with School Year 2010-2011.

(a) Introduction.

(1) Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

(2) Scientific hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions become theories. Scientific theories are based on natural and physical phenomena and are capable of being tested by multiple, independent researchers. Students should know that scientific theories, unlike hypotheses, are well-established and highly reliable, but they may still be subject to change as new information and technologies are developed. Students should be able to distinguish between scientific decision-making methods and ethical/social decisions that involve the application of scientific information.

(3) Grade 8 science is interdisciplinary in nature; however, much of the content focus is on earth and space science. National standards in science are organized as multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level format used in Texas, the various national standards are found among Grades 6, 7, and 8. Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale.

(4) The strands for Grade 8 include:

(A) Scientific investigation and reasoning.

(i) To develop a rich knowledge of science and the natural world, students must become familiar with different modes of scientific inquiry, rules of evidence, ways of formulating questions, ways of proposing explanations, and the diverse ways scientists study the natural world and propose explanations based on evidence derived from their work.

(ii) Scientific investigations are conducted for different reasons. All investigations require a research question, careful observations, data

gathering, and analysis of the data to identify the patterns that will explain the findings. Descriptive investigations are used to explore new phenomena such as conducting surveys of organisms or measuring the abiotic components in a given habitat. Descriptive statistics include frequency, range, mean, median, and mode. A hypothesis is not required in a descriptive investigation. On the other hand, when conditions can be controlled in order to focus on a single variable, experimental research design is used to determine causation. Students should experience both types of investigations and understand that different scientific research questions require different research designs.

(iii) Scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations, and the methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. Models have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.

(B) Matter and energy. Students recognize that matter is composed of atoms. Students examine information on the Periodic Table to recognize that elements are grouped into families. In addition, students understand the basic concept of conservation of mass. Lab activities will allow students to demonstrate evidence of chemical reactions. They will use chemical formulas and balanced equations to show chemical reactions and the formation of new substances.

(C) Force, motion, and energy. Students experiment with the relationship between forces and motion through the study of Newton's three laws. Students learn how these forces relate to geologic processes and astronomical phenomena. In addition, students recognize that these laws are evident in everyday objects and activities. Mathematics is used to calculate speed using distance and time measurements.

(D) Earth and space. Students identify the role of natural events in altering Earth systems. Cycles within Sun, Earth, and Moon systems are studied as students learn about seasons, tides, and lunar phases. Students learn that stars and galaxies are part of the universe and that distances in space are measured by using light waves. In addition, students use data to research scientific theories of the origin of the universe. Students will illustrate how Earth features change over time by plate tectonics. They will interpret land and erosional features on topographic maps. Students learn how interactions in solar, weather, and ocean systems create changes in weather patterns and climate.



(E) Organisms and environments. In studies of living systems, students explore the interdependence between these systems. Interactions between organisms in ecosystems, including producer/consumer, predator/prey, and parasite/host relationships, are investigated in aquatic and terrestrial systems. Students describe how biotic and abiotic factors affect the number of organisms and populations present in an ecosystem. In addition, students explore how organisms and their populations respond to short- and long-term environmental changes, including those caused by human activities.

(b) Knowledge and skills.

(1) Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards; and

(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials.

(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:

(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;

(B) design and implement comparative and experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology;

(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers;

(D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns; and

(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:

(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;

(B) use models to represent aspects of the natural world such as an atom, a molecule, space, or a geologic feature;

(C) identify advantages and limitations of models such as size, scale, properties, and materials; and

(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.

(4) Scientific investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:

(A) use appropriate tools to collect, record, and analyze information, including lab journals/notebooks, beakers, meter sticks, graduated cylinders, anemometers, psychrometers, hot plates, test tubes, spring scales, balances, microscopes, thermometers, calculators, computers, spectrosopes, timing devices, and other equipment as needed to teach the curriculum; and

(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.

(5) Matter and energy. The student knows that matter is composed of atoms and has chemical and physical properties. The student is expected to:

(A) describe the structure of atoms, including the masses, electrical charges, and locations, of protons and neutrons in the nucleus and electrons in the electron cloud;

(B) identify that protons determine an element's identity and valence electrons determine its chemical properties, including reactivity;

(C) interpret the arrangement of the Periodic Table, including groups and periods, to explain how properties are used to classify elements;

(D) recognize that chemical formulas are used to identify substances and determine the number of atoms of each element in chemical formulas containing subscripts;

(E) investigate how evidence of chemical reactions indicate that new substances with different properties are formed; and

(F) recognize whether a chemical equation containing coefficients is balanced or not and how that relates to the law of conservation of mass.

(6) Force, motion, and energy. The student knows that there is a relationship between force, motion, and energy. The student is expected to:

(A) demonstrate and calculate how unbalanced forces change the speed or direction of an object's motion;

(B) differentiate between speed, velocity, and acceleration; and

(C) investigate and describe applications of Newton's law of inertia, law of force and acceleration, and law of action-reaction such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches.

(7) Earth and space. The student knows the effects resulting from cyclical movements of the Sun, Earth, and Moon. The student is expected to:

(A) model and illustrate how the tilted Earth rotates on its axis, causing day and night, and revolves around the Sun causing changes in seasons;

(B) demonstrate and predict the sequence of events in the lunar cycle; and

(C) relate the position of the Moon and Sun to their effect on ocean tides.

(8) Earth and space. The student knows characteristics of the universe. The student is expected to:

(A) describe components of the universe, including stars, nebulae, and galaxies, and use models such as the Hertzsprung-Russell diagram for classification;

(B) recognize that the Sun is a medium-sized star near the edge of a disc-shaped galaxy of stars and that the Sun is many thousands of times closer to Earth than any other star;

(C) explore how different wavelengths of the electromagnetic spectrum such as light and radio waves are used to gain information about distances and properties of components in the universe;

(D) model and describe how light years are used to measure distances and sizes in the universe; and

(E) research how scientific data are used as evidence to develop scientific theories to describe the origin of the universe.

(9) Earth and space. The student knows that natural events can impact Earth systems. The student is expected to:

(A) describe the historical development of evidence that supports plate tectonic theory;

(B) relate plate tectonics to the formation of crustal features; and

(C) interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be reshaped by weathering.

(10) Earth and space. The student knows that climatic interactions exist among Earth, ocean, and weather systems. The student is expected to:

(A) recognize that the Sun provides the energy that drives convection within the atmosphere and oceans, producing winds and ocean currents;

(B) identify how global patterns of atmospheric movement influence local weather using weather maps that show high and low pressures and fronts; and

(C) identify the role of the oceans in the formation of weather systems such as hurricanes.

(11) Organisms and environments. The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems. The student is expected to:

(A) describe producer/consumer, predator/prey, and parasite/host relationships as they occur in food webs within marine, freshwater, and terrestrial ecosystems;

(B) investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic factors such as quantity of light, water, range of temperatures, or soil composition;

(C) explore how short- and long-term environmental changes affect organisms and traits in subsequent populations; and

(D) recognize human dependence on ocean systems and explain how human activities such as runoff, artificial reefs, or use of resources have modified these systems.

*Source: The provisions of this §112.20 adopted to be effective August 4, 2009, 34 TexReg 5063.*

Chapter 111. Texas Essential Knowledge and Skills for Mathematics  
Subchapter B. Middle School

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Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §§7.102(c)(4), 28.002, and 28.008, unless otherwise noted.

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§111.21. Implementation of Texas Essential Knowledge and Skills for Mathematics, Grades 6-8.

The provisions of this subchapter shall be implemented by school districts beginning with the 2006-2007 school year.

*Source: The provisions of this §111.21 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 4479.*

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§111.22. Mathematics, Grade 6.

(a) Introduction.

(1) Within a well-balanced mathematics curriculum, the primary focal points at Grade 6 are using ratios to describe direct proportional relationships involving number, geometry, measurement, probability, and adding and subtracting decimals and fractions.

(2) Throughout mathematics in Grades 6-8, students build a foundation of basic understandings in number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement; and probability and statistics. Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other; and they connect verbal, numeric, graphic, and symbolic representations of relationships. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, reasoning, and concepts of probability to draw conclusions, evaluate arguments, and make recommendations.

(3) Problem solving in meaningful contexts, language and communication, connections within and outside mathematics, and formal and informal reasoning underlie all content

areas in mathematics. Throughout mathematics in Grades 6-8, students use these processes together with graphing technology and other mathematical tools such as manipulative materials to develop conceptual understanding and solve problems as they do mathematics.

(b) Knowledge and skills.

(1) Number, operation, and quantitative reasoning. The student represents and uses rational numbers in a variety of equivalent forms. The student is expected to:

- (A) compare and order non-negative rational numbers;
- (B) generate equivalent forms of rational numbers including whole numbers, fractions, and decimals;
- (C) use integers to represent real-life situations;
- (D) write prime factorizations using exponents;
- (E) identify factors of a positive integer, common factors, and the greatest common factor of a set of positive integers; and
- (F) identify multiples of a positive integer and common multiples and the least common multiple of a set of positive integers.

(2) Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. The student is expected to:

- (A) model addition and subtraction situations involving fractions with objects, pictures, words, and numbers;
- (B) use addition and subtraction to solve problems involving fractions and decimals;
- (C) use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates;
- (D) estimate and round to approximate reasonable results and to solve problems where exact answers are not required; and
- (E) use order of operations to simplify whole number expressions (without exponents) in problem solving situations.

(3) Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships. The student is expected to:

- (A) use ratios to describe proportional situations;
- (B) represent ratios and percents with concrete models, fractions, and decimals; and
- (C) use ratios to make predictions in proportional situations.

(4) Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes. The student is expected to:

- (A) use tables and symbols to represent and describe proportional and other relationships such as those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area; and
- (B) use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.

(5) Patterns, relationships, and algebraic thinking. The student uses letters to represent an unknown in an equation. The student is expected to formulate equations from problem situations described by linear relationships.

(6) Geometry and spatial reasoning. The student uses geometric vocabulary to describe angles, polygons, and circles. The student is expected to:

- (A) use angle measurements to classify angles as acute, obtuse, or right;
- (B) identify relationships involving angles in triangles and quadrilaterals; and
- (C) describe the relationship between radius, diameter, and circumference of a circle.

(7) Geometry and spatial reasoning. The student uses coordinate geometry to identify location in two dimensions. The student is expected to locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers.

(8) Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles. The student is expected to:

- (A) estimate measurements (including circumference) and evaluate reasonableness of results;

(B) select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight;

(C) measure angles; and

(D) convert measures within the same measurement system (customary and metric) based on relationships between units.

(9) Probability and statistics. The student uses experimental and theoretical probability to make predictions. The student is expected to:

(A) construct sample spaces using lists and tree diagrams; and

(B) find the probabilities of a simple event and its complement and describe the relationship between the two.

(10) Probability and statistics. The student uses statistical representations to analyze data. The student is expected to:

(A) select and use an appropriate representation for presenting and displaying different graphical representations of the same data including line plot, line graph, bar graph, and stem and leaf plot;

(B) identify mean (using concrete objects and pictorial models), median, mode, and range of a set of data;

(C) sketch circle graphs to display data; and

(D) solve problems by collecting, organizing, displaying, and interpreting data.

(11) Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:

(A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;

(B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;

(C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic



guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and

(D) select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.

(12) Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models. The student is expected to:

(A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models; and

(B) evaluate the effectiveness of different representations to communicate ideas.

(13) Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to:

(A) make conjectures from patterns or sets of examples and nonexamples; and

(B) validate his/her conclusions using mathematical properties and relationships.

*Source: The provisions of this §111.22 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 1930.*

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## §111.23. Mathematics, Grade 7.

### (a) Introduction.

(1) Within a well-balanced mathematics curriculum, the primary focal points at Grade 7 are using direct proportional relationships in number, geometry, measurement, and probability; applying addition, subtraction, multiplication, and division of decimals, fractions, and integers; and using statistical measures to describe data.

(2) Throughout mathematics in Grades 6-8, students build a foundation of basic understandings in number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement; and probability and statistics. Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other; and they connect verbal, numeric, graphic, and symbolic representations of relationships. Students use geometric properties and relationships, as

well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, reasoning, and concepts of probability to draw conclusions, evaluate arguments, and make recommendations.

(3) Problem solving in meaningful contexts, language and communication, connections within and outside mathematics, and formal and informal reasoning underlie all content areas in mathematics. Throughout mathematics in Grades 6-8, students use these processes together with graphing technology and other mathematical tools such as manipulative materials to develop conceptual understanding and solve problems as they do mathematics.

(b) Knowledge and skills.

(1) Number, operation, and quantitative reasoning. The student represents and uses numbers in a variety of equivalent forms. The student is expected to:

- (A) compare and order integers and positive rational numbers;
- (B) convert between fractions, decimals, whole numbers, and percents mentally, on paper, or with a calculator; and
- (C) represent squares and square roots using geometric models.

(2) Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. The student is expected to:

- (A) represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers;
- (B) use addition, subtraction, multiplication, and division to solve problems involving fractions and decimals;
- (C) use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms;
- (D) use division to find unit rates and ratios in proportional relationships such as speed, density, price, recipes, and student-teacher ratio;
- (E) simplify numerical expressions involving order of operations and exponents;
- (F) select and use appropriate operations to solve problems and justify the selections; and

- (G) determine the reasonableness of a solution to a problem.
- (3) Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships. The student is expected to:
- (A) estimate and find solutions to application problems involving percent; and
  - (B) estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.
- (4) Patterns, relationships, and algebraic thinking. The student represents a relationship in numerical, geometric, verbal, and symbolic form. The student is expected to:
- (A) generate formulas involving unit conversions within the same system (customary and metric), perimeter, area, circumference, volume, and scaling;
  - (B) graph data to demonstrate relationships in familiar concepts such as conversions, perimeter, area, circumference, volume, and scaling; and
  - (C) use words and symbols to describe the relationship between the terms in an arithmetic sequence (with a constant rate of change) and their positions in the sequence.
- (5) Patterns, relationships, and algebraic thinking. The student uses equations to solve problems. The student is expected to:
- (A) use concrete and pictorial models to solve equations and use symbols to record the actions; and
  - (B) formulate problem situations when given a simple equation and formulate an equation when given a problem situation.
- (6) Geometry and spatial reasoning. The student compares and classifies two- and three-dimensional figures using geometric vocabulary and properties. The student is expected to:
- (A) use angle measurements to classify pairs of angles as complementary or supplementary;
  - (B) use properties to classify triangles and quadrilaterals;
  - (C) use properties to classify three-dimensional figures, including pyramids, cones, prisms, and cylinders; and
  - (D) use critical attributes to define similarity.

(7) Geometry and spatial reasoning. The student uses coordinate geometry to describe location on a plane. The student is expected to:

(A) locate and name points on a coordinate plane using ordered pairs of integers; and

(B) graph reflections across the horizontal or vertical axis and graph translations on a coordinate plane.

(8) Geometry and spatial reasoning. The student uses geometry to model and describe the physical world. The student is expected to:

(A) sketch three-dimensional figures when given the top, side, and front views;

(B) make a net (two-dimensional model) of the surface area of a three-dimensional figure; and

(C) use geometric concepts and properties to solve problems in fields such as art and architecture.

(9) Measurement. The student solves application problems involving estimation and measurement. The student is expected to:

(A) estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes;

(B) connect models for volume of prisms (triangular and rectangular) and cylinders to formulas of prisms (triangular and rectangular) and cylinders; and

(C) estimate measurements and solve application problems involving volume of prisms (rectangular and triangular) and cylinders.

(10) Probability and statistics. The student recognizes that a physical or mathematical model (including geometric) can be used to describe the experimental and theoretical probability of real-life events. The student is expected to:

(A) construct sample spaces for simple or composite experiments; and

(B) find the probability of independent events.

(11) Probability and statistics. The student understands that the way a set of data is displayed influences its interpretation. The student is expected to:

(A) select and use an appropriate representation for presenting and displaying relationships among collected data, including line plot, line graph, bar graph, stem and leaf plot, circle graph, and Venn diagrams, and justify the selection; and

(B) make inferences and convincing arguments based on an analysis of given or collected data.

(12) Probability and statistics. The student uses measures of central tendency and variability to describe a set of data. The student is expected to:

(A) describe a set of data using mean, median, mode, and range; and

(B) choose among mean, median, mode, or range to describe a set of data and justify the choice for a particular situation.

(13) Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:

(A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;

(B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;

(C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and

(D) select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.

(14) Underlying processes and mathematical tools. The student communicates about Grade 7 mathematics through informal and mathematical language, representations, and models. The student is expected to:

(A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models; and

(B) evaluate the effectiveness of different representations to communicate ideas.

(15) Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to:

(A) make conjectures from patterns or sets of examples and nonexamples; and

(B) validate his/her conclusions using mathematical properties and relationships.

*Source: The provisions of this §111.23 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 1930; amended to be effective February 22, 2009, 34 TexReg 1056.*

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§111.24. Mathematics, Grade 8.

(a) Introduction.

(1) Within a well-balanced mathematics curriculum, the primary focal points at Grade 8 are using basic principles of algebra to analyze and represent both proportional and non-proportional linear relationships and using probability to describe data and make predictions.

(2) Throughout mathematics in Grades 6-8, students build a foundation of basic understandings in number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement; and probability and statistics. Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other; and they connect verbal, numeric, graphic, and symbolic representations of relationships. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, reasoning, and concepts of probability to draw conclusions, evaluate arguments, and make recommendations.

(3) Problem solving in meaningful contexts, language and communication, connections within and outside mathematics, and formal and informal reasoning underlie all content areas in mathematics. Throughout mathematics in Grades 6-8, students use these processes together with graphing technology and other mathematical tools such as manipulative materials to develop conceptual understanding and solve problems as they do mathematics.

(b) Knowledge and skills.

(1) Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations. The student is expected to:

(A) compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals;

(B) select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships;

(C) approximate (mentally and with calculators) the value of irrational numbers as they arise from problem situations (such as  $\pi$ ,  $\sqrt{2}$ );

(D) express numbers in scientific notation, including negative exponents, in appropriate problem situations; and

(E) compare and order real numbers with a calculator.

(2) Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and justify solutions. The student is expected to:

(A) select appropriate operations to solve problems involving rational numbers and justify the selections;

(B) use appropriate operations to solve problems involving rational numbers in problem situations;

(C) evaluate a solution for reasonableness; and

(D) use multiplication by a given constant factor (including unit rate) to represent and solve problems involving proportional relationships including conversions between measurement systems.

(3) Patterns, relationships, and algebraic thinking. The student identifies proportional or non-proportional linear relationships in problem situations and solves problems. The student is expected to:

(A) compare and contrast proportional and non-proportional linear relationships; and

(B) estimate and find solutions to application problems involving percents and other proportional relationships such as similarity and rates.

(4) Patterns, relationships, and algebraic thinking. The student makes connections among various representations of a numerical relationship. The student is expected to generate a

different representation of data given another representation of data (such as a table, graph, equation, or verbal description).

(5) Patterns, relationships, and algebraic thinking. The student uses graphs, tables, and algebraic representations to make predictions and solve problems. The student is expected to:

(A) predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations; and

(B) find and evaluate an algebraic expression to determine any term in an arithmetic sequence (with a constant rate of change).

(6) Geometry and spatial reasoning. The student uses transformational geometry to develop spatial sense. The student is expected to:

(A) generate similar figures using dilations including enlargements and reductions; and

(B) graph dilations, reflections, and translations on a coordinate plane.

(7) Geometry and spatial reasoning. The student uses geometry to model and describe the physical world. The student is expected to:

(A) draw three-dimensional figures from different perspectives;

(B) use geometric concepts and properties to solve problems in fields such as art and architecture;

(C) use pictures or models to demonstrate the Pythagorean Theorem; and

(D) locate and name points on a coordinate plane using ordered pairs of rational numbers.

(8) Measurement. The student uses procedures to determine measures of three-dimensional figures. The student is expected to:

(A) find lateral and total surface area of prisms, pyramids, and cylinders using concrete models and nets (two-dimensional models);

(B) connect models of prisms, cylinders, pyramids, spheres, and cones to formulas for volume of these objects; and

(C) estimate measurements and use formulas to solve application problems involving lateral and total surface area and volume.



(9) Measurement. The student uses indirect measurement to solve problems. The student is expected to:

(A) use the Pythagorean Theorem to solve real-life problems; and

(B) use proportional relationships in similar two-dimensional figures or similar three-dimensional figures to find missing measurements.

(10) Measurement. The student describes how changes in dimensions affect linear, area, and volume measures. The student is expected to:

(A) describe the resulting effects on perimeter and area when dimensions of a shape are changed proportionally; and

(B) describe the resulting effect on volume when dimensions of a solid are changed proportionally.

(11) Probability and statistics. The student applies concepts of theoretical and experimental probability to make predictions. The student is expected to:

(A) find the probabilities of dependent and independent events;

(B) use theoretical probabilities and experimental results to make predictions and decisions; and

(C) select and use different models to simulate an event.

(12) Probability and statistics. The student uses statistical procedures to describe data. The student is expected to:

(A) use variability (range, including interquartile range (IQR)) and select the appropriate measure of central tendency to describe a set of data and justify the choice for a particular situation;

(B) draw conclusions and make predictions by analyzing trends in scatterplots; and

(C) select and use an appropriate representation for presenting and displaying relationships among collected data, including line plots, line graphs, stem and leaf plots, circle graphs, bar graphs, box and whisker plots, histograms, and Venn diagrams, with and without the use of technology.

(13) Probability and statistics. The student evaluates predictions and conclusions based on statistical data. The student is expected to:

(A) evaluate methods of sampling to determine validity of an inference made from a set of data; and

(B) recognize misuses of graphical or numerical information and evaluate predictions and conclusions based on data analysis.

(14) Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:

(A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;

(B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;

(C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and

(D) select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.

(15) Underlying processes and mathematical tools. The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models. The student is expected to:

(A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models; and

(B) evaluate the effectiveness of different representations to communicate ideas.

(16) Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to:

(A) make conjectures from patterns or sets of examples and nonexamples; and

(B) validate his/her conclusions using mathematical properties and relationships.

*Source: The provisions of this §111.24 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 1930; amended to be effective February 22, 2009, 34 TexReg 1056.*

Chapter 110. Texas Essential Knowledge and Skills for English Language Arts and Reading  
Subchapter B. Middle School

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Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §7.102(c)(4) and §28.002, unless otherwise noted.

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§110.17. Implementation of Texas Essential Knowledge and Skills for English Language Arts and Reading, Middle School, Beginning with School Year 2009-2010.

(a) The provisions of §§110.18-110.20 of this subchapter shall be implemented by school districts beginning with the 2009-2010 school year.

(b) Students must develop the ability to comprehend and process material from a wide range of texts. Student expectations for Reading/Comprehension Skills as provided in this subsection are described for the appropriate grade level.

Figure: 19 TAC §110.17(b)

*Source: The provisions of this §110.17 adopted to be effective September 4, 2008, 33 TexReg 7162; amended to be effective February 22, 2010, 35 TexReg 1462.*

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§110.18. English Language Arts and Reading, Grade 6, Beginning with School Year 2009-2010.

(a) Introduction.

(1) The English Language Arts and Reading Texas Essential Knowledge and Skills (TEKS) are organized into the following strands: Reading, where students read and understand a wide variety of literary and informational texts; Writing, where students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail; Research, where students are expected to know how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information; Listening and Speaking, where students listen and respond to the ideas of others while contributing their own ideas in conversations and in groups; and Oral and Written Conventions, where students learn how to use the oral and written conventions of the English language in speaking and writing. The standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. In sixth grade, students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Students should read and write on a daily basis.

(2) For students whose first language is not English, the students' native language serves as a foundation for English language acquisition.

(A) English language learners (ELLs) are acquiring English, learning content in English, and learning to read simultaneously. For this reason, it is imperative that reading instruction should be comprehensive and that students receive instruction in phonemic awareness, phonics, decoding, and word attack skills while simultaneously being taught academic vocabulary and comprehension skills and strategies. Reading instruction that enhances ELL's ability to decode unfamiliar words and to make sense of those words in context will expedite their ability to make sense of what they read and learn from reading. Additionally, developing fluency, spelling, and grammatical conventions of academic language must be done in meaningful contexts and not in isolation.

(B) For ELLs, comprehension of texts requires additional scaffolds to support comprehensible input. ELL students should use the knowledge of their first language (e.g., cognates) to further vocabulary development. Vocabulary needs to be taught in the context of connected discourse so that language is meaningful. ELLs must learn how rhetorical devices in English differ from those in their native language. At the same time English learners are learning in English, the focus is on academic English, concepts, and the language structures specific to the content.

(C) During initial stages of English development, ELLs are expected to meet standards in a second language that many monolingual English speakers find difficult to meet in their native language. However, English language learners' abilities to meet these standards will be influenced by their proficiency in English. While English language learners can analyze, synthesize, and evaluate, their level of English proficiency may impede their ability to demonstrate this knowledge during the initial stages of English language acquisition. It is also critical to understand that ELLs with no previous or with interrupted schooling will require explicit and strategic support as they acquire English and learn to learn in English simultaneously.

(3) To meet Public Education Goal 1 of the Texas Education Code, §4.002, which states, "The students in the public education system will demonstrate exemplary performance in the reading and writing of the English language," students will accomplish the essential knowledge, skills, and student expectations at Grade 6 as described in subsection (b) of this section.

(4) To meet Texas Education Code, §28.002(h), which states, "... each school district shall foster the continuation of the tradition of teaching United States and Texas history and the free enterprise system in regular subject matter and in reading courses and in the adoption of textbooks," students will be provided oral and written narratives as well as

other informational texts that can help them to become thoughtful, active citizens who appreciate the basic democratic values of our state and nation.

(b) Knowledge and skills.

(1) Reading/Fluency. Students read grade-level text with fluency and comprehension. Students are expected to adjust fluency when reading aloud grade-level text based on the reading purpose and the nature of the text.

(2) Reading/Vocabulary Development. Students understand new vocabulary and use it when reading and writing. Students are expected to:

(A) determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes;

(B) use context (e.g., cause and effect or compare and contrast organizational text structures) to determine or clarify the meaning of unfamiliar or multiple meaning words;

(C) complete analogies that describe part to whole or whole to part (e.g., ink:pen as page: \_\_\_\_ or pen:ink as book: \_\_\_\_);

(D) explain the meaning of foreign words and phrases commonly used in written English (e.g., *RSVP*, *que sera sera*); and

(E) use a dictionary, a glossary, or a thesaurus (printed or electronic) to determine the meanings, syllabication, pronunciations, alternate word choices, and parts of speech of words.

(3) Reading/Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to:

(A) infer the implicit theme of a work of fiction, distinguishing theme from the topic;

(B) analyze the function of stylistic elements (e.g., magic helper, rule of three) in traditional and classical literature from various cultures; and

(C) compare and contrast the historical and cultural settings of two literary works.

(4) Reading/Comprehension of Literary Text/Poetry. Students understand, make inferences and draw conclusions about the structure and elements of poetry and provide

evidence from text to support their understanding. Students are expected to explain how figurative language (e.g., personification, metaphors, similes, hyperbole) contributes to the meaning of a poem.

(5) Reading/Comprehension of Literary Text/Drama. Students understand, make inferences and draw conclusions about the structure and elements of drama and provide evidence from text to support their understanding. Students are expected to explain the similarities and differences in the setting, characters, and plot of a play and those in a film based upon the same story line.

(6) Reading/Comprehension of Literary Text/Fiction. Students understand, make inferences and draw conclusions about the structure and elements of fiction and provide evidence from text to support their understanding. Students are expected to:

(A) summarize the elements of plot development (e.g., rising action, turning point, climax, falling action, denouement) in various works of fiction;

(B) recognize dialect and conversational voice and explain how authors use dialect to convey character; and

(C) describe different forms of point-of-view, including first- and third-person.

(7) Reading/Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and provide evidence from text to support their understanding. Students are expected to identify the literary language and devices used in memoirs and personal narratives and compare their characteristics with those of an autobiography.

(8) Reading/Comprehension of Literary Text/Sensory Language. Students understand, make inferences and draw conclusions about how an author's sensory language creates imagery in literary text and provide evidence from text to support their understanding. Students are expected to explain how authors create meaning through stylistic elements and figurative language emphasizing the use of personification, hyperbole, and refrains.

(9) Reading/Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to compare and contrast the stated or implied purposes of different authors writing on the same topic.

(10) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding. Students are expected to:

- (A) summarize the main ideas and supporting details in text, demonstrating an understanding that a summary does not include opinions;
- (B) explain whether facts included in an argument are used for or against an issue;
- (C) explain how different organizational patterns (e.g., proposition-and-support, problem-and-solution) develop the main idea and the author's viewpoint; and
- (D) synthesize and make logical connections between ideas within a text and across two or three texts representing similar or different genres.

(11) Reading/Comprehension of Informational Text/Persuasive Text. Students analyze, make inferences and draw conclusions about persuasive text and provide evidence from text to support their analysis. Students are expected to:

- (A) compare and contrast the structure and viewpoints of two different authors writing for the same purpose, noting the stated claim and supporting evidence; and
- (B) identify simply faulty reasoning used in persuasive texts.

(12) Reading/Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents. Students are expected to:

- (A) follow multi-tasked instructions to complete a task, solve a problem, or perform procedures; and
- (B) interpret factual, quantitative, or technical information presented in maps, charts, illustrations, graphs, timelines, tables, and diagrams.

(13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue to apply earlier standards with greater depth in increasingly more complex texts. Students are expected to:

- (A) explain messages conveyed in various forms of media;
- (B) recognize how various techniques influence viewers' emotions;
- (C) critique persuasive techniques (e.g., testimonials, bandwagon appeal) used in media messages; and
- (D) analyze various digital media venues for levels of formality and informality.

(14) Writing/Writing Process. Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text. Students are expected to:

(A) plan a first draft by selecting a genre appropriate for conveying the intended meaning to an audience, determining appropriate topics through a range of strategies (e.g., discussion, background reading, personal interests, interviews), and developing a thesis or controlling idea;

(B) develop drafts by choosing an appropriate organizational strategy (e.g., sequence of events, cause-effect, compare-contrast) and building on ideas to create a focused, organized, and coherent piece of writing;

(C) revise drafts to clarify meaning, enhance style, include simple and compound sentences, and improve transitions by adding, deleting, combining, and rearranging sentences or larger units of text after rethinking how well questions of purpose, audience, and genre have been addressed;

(D) edit drafts for grammar, mechanics, and spelling; and

(E) revise final draft in response to feedback from peers and teacher and publish written work for appropriate audiences.

(15) Writing/Literary Texts. Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:

(A) write imaginative stories that include:

(i) a clearly defined focus, plot, and point of view;

(ii) a specific, believable setting created through the use of sensory details; and

(iii) dialogue that develops the story; and

(B) write poems using:

(i) poetic techniques (e.g., alliteration, onomatopoeia);

(ii) figurative language (e.g., similes, metaphors); and

(iii) graphic elements (e.g., capital letters, line length).

(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences.



(17) Writing/Expository and Procedural Texts. Students write expository and procedural or work-related texts to communicate ideas and information to specific audiences for specific purposes. Students are expected to:

- (A) create multi-paragraph essays to convey information about a topic that:
  - (i) present effective introductions and concluding paragraphs;
  - (ii) guide and inform the reader's understanding of key ideas and evidence;
  - (iii) include specific facts, details, and examples in an appropriately organized structure; and
  - (iv) use a variety of sentence structures and transitions to link paragraphs;
- (B) write informal letters that convey ideas, include important information, demonstrate a sense of closure, and use appropriate conventions (e.g., date, salutation, closing);
- (C) write responses to literary or expository texts and provide evidence from the text to demonstrate understanding; and
- (D) produce a multimedia presentation involving text and graphics using available technology.

(18) Writing/Persuasive Texts. Students write persuasive texts to influence the attitudes or actions of a specific audience on specific issues. Students are expected to write persuasive essays for appropriate audiences that establish a position and include sound reasoning, detailed and relevant evidence, and consideration of alternatives.

(19) Oral and Written Conventions/Conventions. Students understand the function of and use the conventions of academic language when speaking and writing. Students will continue to apply earlier standards with greater complexity. Students are expected to:

- (A) use and understand the function of the following parts of speech in the context of reading, writing, and speaking:
  - (i) verbs (irregular verbs and active and passive voice);
  - (ii) non-count nouns (e.g., rice, paper);
  - (iii) predicate adjectives (She is *intelligent*.) and their comparative and superlative forms (e.g., many, more, most);

- (iv) conjunctive adverbs (e.g., consequently, furthermore, indeed);
- (v) prepositions and prepositional phrases to convey location, time, direction, or to provide details;
- (vi) indefinite pronouns (e.g., all, both, nothing, anything);
- (vii) subordinating conjunctions (e.g., while, because, although, if); and
- (viii) transitional words and phrases that demonstrate an understanding of the function of the transition related to the organization of the writing (e.g., on the contrary, in addition to);

(B) differentiate between the active and passive voice and know how to use them both; and

(C) use complete simple and compound sentences with correct subject-verb agreement.

(20) Oral and Written Conventions/Handwriting, Capitalization, and Punctuation. Students write legibly and use appropriate capitalization and punctuation conventions in their compositions. Students are expected to:

(A) use capitalization for:

- (i) abbreviations;
- (ii) initials and acronyms; and
- (iii) organizations;

(B) recognize and use punctuation marks including:

- (i) commas in compound sentences;
- (ii) proper punctuation and spacing for quotations; and
- (iii) parentheses, brackets, and ellipses (to indicate omissions and interruptions or incomplete statements); and

(C) use proper mechanics including italics and underlining for titles of books.

(21) Oral and Written Conventions/Spelling. Students spell correctly. Students are expected to:

- (A) differentiate between commonly confused terms (e.g., its, it's; affect, effect);
- (B) use spelling patterns and rules and print and electronic resources to determine and check correct spellings; and
- (C) know how to use the spell-check function in word processing while understanding its limitations.

(22) Research/Research Plan. Students ask open-ended research questions and develop a plan for answering them. Students are expected to:

- (A) brainstorm, consult with others, decide upon a topic, and formulate open-ended questions to address the major research topic; and
- (B) generate a research plan for gathering relevant information about the major research question.

(23) Research/Gathering Sources. Students determine, locate, and explore the full range of relevant sources addressing a research question and systematically record the information they gather. Students are expected to:

- (A) follow the research plan to collect data from a range of print and electronic resources (e.g., reference texts, periodicals, web pages, online sources) and data from experts;
- (B) differentiate between primary and secondary sources;
- (C) record data, utilizing available technology (e.g., word processors) in order to see the relationships between ideas, and convert graphic/visual data (e.g., charts, diagrams, timelines) into written notes;
- (D) identify the source of notes (e.g., author, title, page number) and record bibliographic information concerning those sources according to a standard format; and
- (E) differentiate between paraphrasing and plagiarism and identify the importance of citing valid and reliable sources.

(24) Research/Synthesizing Information. Students clarify research questions and evaluate and synthesize collected information. Students are expected to:

- (A) refine the major research question, if necessary, guided by the answers to a secondary set of questions; and
- (B) evaluate the relevance and reliability of sources for the research.

(25) Research/Organizing and Presenting Ideas. Students organize and present their ideas and information according to the purpose of the research and their audience. Students are expected to synthesize the research into a written or an oral presentation that:

- (A) compiles important information from multiple sources;
- (B) develops a topic sentence, summarizes findings, and uses evidence to support conclusions;
- (C) presents the findings in a consistent format; and
- (D) uses quotations to support ideas and an appropriate form of documentation to acknowledge sources (e.g., bibliography, works cited).

(26) Listening and Speaking/Listening. Students will use comprehension skills to listen attentively to others in formal and informal settings. Students will continue to apply earlier standards with greater complexity. Students are expected to:

- (A) listen to and interpret a speaker's messages (both verbal and nonverbal) and ask questions to clarify the speaker's purpose and perspective;
- (B) follow and give oral instructions that include multiple action steps; and
- (C) paraphrase the major ideas and supporting evidence in formal and informal presentations.

(27) Listening and Speaking/Speaking. Students speak clearly and to the point, using the conventions of language. Students will continue to apply earlier standards with greater complexity. Students are expected to give an organized presentation with a specific point of view, employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively.

(28) Listening and Speaking/Teamwork. Students work productively with others in teams. Students will continue to apply earlier standards with greater complexity. Students are expected to participate in student-led discussions by eliciting and considering suggestions from other group members and by identifying points of agreement and disagreement.

*Source: The provisions of this §110.18 adopted to be effective September 4, 2008, 33 TexReg 7162.*

(a) Introduction.

(1) The English Language Arts and Reading Texas Essential Knowledge and Skills (TEKS) are organized into the following strands: Reading, where students read and understand a wide variety of literary and informational texts; Writing, where students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail; Research, where students are expected to know how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information; Listening and Speaking, where students listen and respond to the ideas of others while contributing their own ideas in conversations and in groups; and Oral and Written Conventions, where students learn how to use the oral and written conventions of the English language in speaking and writing. The standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. In seventh grade, students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Students should read and write on a daily basis.

(2) For students whose first language is not English, the students' native language serves as a foundation for English language acquisition.

(A) English language learners (ELLs) are acquiring English, learning content in English, and learning to read simultaneously. For this reason, it is imperative that reading instruction should be comprehensive and that students receive instruction in phonemic awareness, phonics, decoding, and word attack skills while simultaneously being taught academic vocabulary and comprehension skills and strategies. Reading instruction that enhances ELL's ability to decode unfamiliar words and to make sense of those words in context will expedite their ability to make sense of what they read and learn from reading. Additionally, developing fluency, spelling, and grammatical conventions of academic language must be done in meaningful contexts and not in isolation.

(B) For ELLs, comprehension of texts requires additional scaffolds to support comprehensible input. ELL students should use the knowledge of their first language (e.g., cognates) to further vocabulary development. Vocabulary needs to be taught in the context of connected discourse so that language is meaningful. ELLs must learn how rhetorical devices in English differ from those in their native language. At the same time English learners are learning in English, the focus is on academic English, concepts, and the language structures specific to the content.

(C) During initial stages of English development, ELLs are expected to meet standards in a second language that many monolingual English speakers find difficult to meet in their native language. However, English language learners' abilities to meet these standards will be influenced by their proficiency in English. While English language learners can analyze, synthesize, and evaluate, their level

of English proficiency may impede their ability to demonstrate this knowledge during the initial stages of English language acquisition. It is also critical to understand that ELLs with no previous or with interrupted schooling will require explicit and strategic support as they acquire English and learn to learn in English simultaneously.

(3) To meet Public Education Goal 1 of the Texas Education Code, §4.002, which states, "The students in the public education system will demonstrate exemplary performance in the reading and writing of the English language," students will accomplish the essential knowledge, skills, and student expectations at Grade 7 as described in subsection (b) of this section.

(4) To meet Texas Education Code, §28.002(h), which states, "... each school district shall foster the continuation of the tradition of teaching United States and Texas history and the free enterprise system in regular subject matter and in reading courses and in the adoption of textbooks," students will be provided oral and written narratives as well as other informational texts that can help them to become thoughtful, active citizens who appreciate the basic democratic values of our state and nation.

(b) Knowledge and skills.

(1) Reading/Fluency. Students read grade-level text with fluency and comprehension. Students are expected to adjust fluency when reading aloud grade-level text based on the reading purpose and the nature of the text.

(2) Reading/Vocabulary Development. Students understand new vocabulary and use it when reading and writing. Students are expected to:

(A) determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes;

(B) use context (within a sentence and in larger sections of text) to determine or clarify the meaning of unfamiliar or ambiguous words;

(C) complete analogies that describe part to whole or whole to part;

(D) identify the meaning of foreign words commonly used in written English with emphasis on Latin and Greek words (e.g., *habeus corpus*, *e pluribus unum*, *bona fide*, *nemesis*); and

(E) use a dictionary, a glossary, or a thesaurus (printed or electronic) to determine the meanings, syllabication, pronunciations, alternate word choices, and parts of speech of words.

(3) Reading/Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to:

(A) describe multiple themes in a work of fiction;

(B) describe conventions in myths and epic tales (e.g., extended simile, the quest, the hero's tasks, circle stories); and

(C) analyze how place and time influence the theme or message of a literary work.

(4) Reading/Comprehension of Literary Text/Poetry. Students understand, make inferences and draw conclusions about the structure and elements of poetry and provide evidence from text to support their understanding. Students are expected to analyze the importance of graphical elements (e.g., capital letters, line length, word position) on the meaning of a poem.

(5) Reading/Comprehension of Literary Text/Drama. Students understand, make inferences and draw conclusions about the structure and elements of drama and provide evidence from text to support their understanding. Students are expected to explain a playwright's use of dialogue and stage directions.

(6) Reading/Comprehension of Literary Text/Fiction. Students understand, make inferences and draw conclusions about the structure and elements of fiction and provide evidence from text to support their understanding. Students are expected to:

(A) explain the influence of the setting on plot development;

(B) analyze the development of the plot through the internal and external responses of the characters, including their motivations and conflicts; and

(C) analyze different forms of point of view, including first-person, third-person omniscient, and third-person limited.

(7) Reading/Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and provide evidence from text to support their understanding. Students are expected to describe the structural and substantive differences between an autobiography or a diary and a fictional adaptation of it.

(8) Reading/Comprehension of Literary Text/Sensory Language. Students understand, make inferences and draw conclusions about how an author's sensory language creates imagery in literary text and provide evidence from text to support their understanding.

Students are expected to determine the figurative meaning of phrases and analyze how an author's use of language creates imagery, appeals to the senses, and suggests mood.

(9) Reading/Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to explain the difference between the theme of a literary work and the author's purpose in an expository text.

(10) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding. Students are expected to:

- (A) evaluate a summary of the original text for accuracy of the main ideas, supporting details, and overall meaning;
- (B) distinguish factual claims from commonplace assertions and opinions;
- (C) use different organizational patterns as guides for summarizing and forming an overview of different kinds of expository text; and
- (D) synthesize and make logical connections between ideas within a text and across two or three texts representing similar or different genres, and support those findings with textual evidence.

(11) Reading/Comprehension of Informational Text/Persuasive Text. Students analyze, make inferences and draw conclusions about persuasive text and provide evidence from text to support their analysis. Students are expected to:

- (A) analyze the structure of the central argument in contemporary policy speeches (e.g., argument by cause and effect, analogy, authority) and identify the different types of evidence used to support the argument; and
- (B) identify such rhetorical fallacies as ad hominem, exaggeration, stereotyping, or categorical claims in persuasive texts.

(12) Reading/Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents. Students are expected to:

- (A) follow multi-dimensional instructions from text to complete a task, solve a problem, or perform procedures; and
- (B) explain the function of the graphical components of a text.



(13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue to apply earlier standards with greater depth in increasingly more complex texts. Students are expected to:

- (A) interpret both explicit and implicit messages in various forms of media;
- (B) interpret how visual and sound techniques (e.g., special effects, camera angles, lighting, music) influence the message;
- (C) evaluate various ways media influences and informs audiences; and
- (D) assess the correct level of formality and tone for successful participation in various digital media.

(14) Writing/Writing Process. Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text. Students are expected to:

- (A) plan a first draft by selecting a genre appropriate for conveying the intended meaning to an audience, determining appropriate topics through a range of strategies (e.g., discussion, background reading, personal interests, interviews), and developing a thesis or controlling idea;
- (B) develop drafts by choosing an appropriate organizational strategy (e.g., sequence of events, cause-effect, compare-contrast) and building on ideas to create a focused, organized, and coherent piece of writing;
- (C) revise drafts to ensure precise word choice and vivid images; consistent point of view; use of simple, compound, and complex sentences; internal and external coherence; and the use of effective transitions after rethinking how well questions of purpose, audience, and genre have been addressed;
- (D) edit drafts for grammar, mechanics, and spelling; and
- (E) revise final draft in response to feedback from peers and teacher and publish written work for appropriate audiences.

(15) Writing/Literary Texts. Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:

- (A) write an imaginative story that:
  - (i) sustains reader interest;
  - (ii) includes well-paced action and an engaging story line;

(iii) creates a specific, believable setting through the use of sensory details;

(iv) develops interesting characters; and

(v) uses a range of literary strategies and devices to enhance the style and tone; and

(B) write a poem using:

(i) poetic techniques (e.g., rhyme scheme, meter);

(ii) figurative language (e.g., personification, idioms, hyperbole); and

(iii) graphic elements (e.g., word position).

(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences.(17) Writing/Expository and Procedural Texts. Students write expository and procedural or work-related texts to communicate ideas and information to specific audiences for specific purposes. (18) Writing/Persuasive Texts. Students write persuasive texts to influence the attitudes or actions of a specific audience on specific issues. Students are expected to write a persuasive essay to the appropriate audience that:(19) Oral and Written Conventions/Conventions. Students understand the function of and use the conventions of academic language when speaking and writing. Students will continue to apply earlier standards with greater complexity. (20) Oral and Written Conventions/Handwriting, Capitalization, and Punctuation. Students write legibly and use appropriate capitalization and punctuation conventions in their compositions. Students are expected to:(21) Oral and Written Conventions/Spelling. Students spell correctly. Students are expected to spell correctly, including using various resources to determine and check correct spellings.(22) Research/Research Plan. Students ask open-ended research questions and develop a plan for answering them. Students are expected to:(23) Research/Gathering Sources. Students determine, locate, and explore the full range of relevant sources addressing a research question and systematically record the information they gather. (24) Research/Synthesizing Information. Students clarify research questions and evaluate and synthesize collected information. (25) Research/Organizing and Presenting Ideas. Students organize and present their ideas and information according to the purpose of the research and their audience. Students are expected to synthesize the research into a written or an oral presentation that:(26) Listening and Speaking/Listening. Students will use comprehension skills to listen attentively to others in formal and informal settings. Students will continue to apply earlier standards with greater complexity. (27) Listening and Speaking/Speaking. Students are expected to present a critique of a literary work, film, or dramatic production, employing eye contact, speaking rate, volume, enunciation, a variety of natural gestures, and conventions of language to communicate ideas effectively.(28) Listening and Speaking/Teamwork. Students are expected to participate productively in discussions, plan agendas with clear goals and deadlines, set time limits for

speakers, take notes, and vote on key issues.

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§110.20. English Language Arts and Reading, Grade 8, Beginning with School Year 2009-2010.

(a) Introduction.(1) The English Language Arts and Reading Texas Essential Knowledge and Skills (TEKS) are organized into the following strands: Reading, where students read and understand a wide variety of literary and informational texts; Writing, where students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail; Research, where students are expected to know how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information; Listening and Speaking, where students listen and respond to the ideas of others while contributing their own ideas in conversations and in groups; and Oral and Written Conventions, where students learn how to use the oral and written conventions of the English language in speaking and writing. The standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. In eighth grade, students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Students should read and write on a daily basis.(A) English language learners (ELLs) are acquiring English, learning content in English, and learning to read simultaneously. For this reason, it is imperative that reading instruction should be comprehensive and that students receive instruction in phonemic awareness, phonics, decoding, and word attack skills while simultaneously being taught academic vocabulary and comprehension skills and strategies. Reading instruction that enhances ELL's ability to decode unfamiliar words and to make sense of those words in context will expedite their ability to make sense of what they read and learn from reading. Additionally, developing fluency, spelling, and grammatical conventions of academic language must be done in meaningful contexts and not in isolation.(B) For ELLs, comprehension of texts requires additional scaffolds to support comprehensible input. ELL students should use the knowledge of their first language (e.g., cognates) to further vocabulary development. Vocabulary needs to be taught in the context of connected discourse so that language is meaningful. ELLs must learn how rhetorical devices in English differ from those in their native language. At the same time English learners are learning in English, the focus is on academic English, concepts, and the language structures specific to the content.(C) During initial stages of English development, ELLs are expected to meet standards in a second language that many monolingual English speakers find difficult to meet in their native language. However, English language learners' abilities to meet these standards will be influenced by their proficiency in English. While English language learners can analyze, synthesize, and evaluate, their level of English proficiency may impede their ability to demonstrate this knowledge during the initial stages of English language acquisition. It is also critical to understand that ELLs with no previous or with interrupted schooling will require explicit and

strategic support as they acquire English and learn to learn in English simultaneously.

- (1) Reading/Fluency. Students read grade-level text with fluency and comprehension. Students are expected to adjust fluency when reading aloud grade-level text based on the reading purpose and the nature of the text.
- (2) Reading/Vocabulary Development. Students understand new vocabulary and use it when reading and writing. Students are expected to:
- (3) Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding.
- (4) Comprehension of Literary Text/Poetry. Students understand, make inferences and draw conclusions about the structure and elements of poetry and provide evidence from text to support their understanding. Students are expected to compare and contrast the relationship between the purpose and characteristics of different poetic forms (e.g.,
- (5) Comprehension of Literary Text/Drama. Students understand, make inferences and draw conclusions about the structure and elements of drama and provide evidence from text to support their understanding. Students are expected to analyze how different playwrights characterize their protagonists and antagonists through the dialogue and staging of their plays.
- (6) Comprehension of Literary Text/Fiction. Students understand, make inferences and draw conclusions about the structure and elements of fiction and provide evidence from text to support their understanding. Students are expected to:
- (7) Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and provide evidence from text to support their understanding. Students are expected to analyze passages in well-known speeches for the author's use of literary devices and word and phrase choice (e.g.,
- (8) Comprehension of Literary Text/Sensory Language. Students understand, make inferences and draw conclusions about how an author's sensory language creates imagery in literary text and provide evidence from text to support their understanding. Students are expected to explain the effect of similes and extended metaphors in literary text.
- (9) Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to analyze works written on the same topic and compare how the authors achieved similar or different purposes.
- (10) Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding.
- (11) Comprehension of Informational Text/Persuasive Text. Students analyze, make inferences and draw conclusions about persuasive text and provide evidence from text to support their analysis.
- (12) Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents.
- (13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue

to apply earlier standards with greater depth in increasingly more complex texts.  
(A) evaluate the role of media in focusing attention on events and informing opinion on issues;

(B) interpret how visual and sound techniques (e.g., special effects, camera angles, lighting, music) influence the message;

(C) evaluate various techniques used to create a point of view in media and the impact on audience; and

(D) assess the correct level of formality and tone for successful participation in various digital media.

(14) Writing/Writing Process. Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text. Students are expected to:

(A) plan a first draft by selecting a genre appropriate for conveying the intended meaning to an audience, determining appropriate topics through a range of strategies (e.g., discussion, background reading, personal interests, interviews), and developing a thesis or controlling idea;

(B) develop drafts by choosing an appropriate organizational strategy (e.g., sequence of events, cause-effect, compare-contrast) and building on ideas to create a focused, organized, and coherent piece of writing;

(C) revise drafts to ensure precise word choice and vivid images; consistent point of view; use of simple, compound, and complex sentences; internal and external coherence; and the use of effective transitions after rethinking how well questions of purpose, audience, and genre have been addressed;

(D) edit drafts for grammar, mechanics, and spelling; and

(E) revise final draft in response to feedback from peers and teacher and publish written work for appropriate audiences.

(15) Writing/Literary Texts.

(A) write a multi-paragraph essay to convey information about a topic that:

(i) presents effective introductions and concluding paragraphs;

(ii) contains a clearly stated purpose or controlling idea;

(iii) is logically organized with appropriate facts and details and includes no extraneous information or inconsistencies;

(iv) accurately synthesizes ideas from several sources; and

(v) uses a variety of sentence structures, rhetorical devices, and transitions to link paragraphs;

(B) write a letter that reflects an opinion, registers a complaint, or requests information in a business or friendly context;

(C) write responses to literary or expository texts that demonstrate the writing skills for multi-paragraph essays and provide sustained evidence from the text using quotations when appropriate; and

(D) produce a multimedia presentation involving text and graphics using available technology.

(A) establishes a clear thesis or position;

(B) considers and responds to the views of others and anticipates and answers reader concerns and counter-arguments; and

(C) includes evidence that is logically organized to support the author's viewpoint and that differentiates between fact and opinion.

(A) identify, use, and understand the function of the following parts of speech in the context of reading, writing, and speaking:

(i) verbs (perfect and progressive tenses) and participles;

(ii) appositive phrases;

(iii) adverbial and adjectival phrases and clauses;

(iv) conjunctive adverbs (e.g., consequently, furthermore, indeed);

(v) prepositions and prepositional phrases and their influence on subject-verb agreement;

(vi) relative pronouns (e.g., whose, that, which);

(vii) subordinating conjunctions (e.g., because, since); and

(viii) transitions for sentence to sentence or paragraph to paragraph coherence;

(B) write complex sentences and differentiate between main versus subordinate clauses; and

(C) use a variety of complete sentences (e.g., simple, compound, complex) that include properly placed modifiers, correctly identified antecedents, parallel structures, and consistent tenses.

(A) use conventions of capitalization; and

(B) recognize and use punctuation marks including:

(i) commas after introductory words, phrases, and clauses; and

(ii) semicolons, colons, and hyphens.

(A) brainstorm, consult with others, decide upon a topic, and formulate a major research question to address the major research topic; and

(B) apply steps for obtaining and evaluating information from a wide variety of sources and create a written plan after preliminary research in reference works and additional text searches.

(A) follow the research plan to gather information from a range of relevant print and electronic sources using advanced search strategies;

(B) categorize information thematically in order to see the larger constructs inherent in the information;

(C) record bibliographic information (e.g., author, title, page number) for all notes and sources according to a standard format; and

(D) differentiate between paraphrasing and plagiarism and identify the importance of citing valid and reliable sources.

(A) narrow or broaden the major research question, if necessary, based on further research and investigation; and

(B) utilize elements that demonstrate the reliability and validity of the sources used (e.g., publication date, coverage, language, point of view) and explain why one source is more useful than another.

- (A) draws conclusions and summarizes or paraphrases the findings in a systematic way;
- (B) marshals evidence to explain the topic and gives relevant reasons for conclusions;
- (C) presents the findings in a meaningful format; and
- (D) follows accepted formats for integrating quotations and citations into the written text to maintain a flow of ideas.

- (A) listen to and interpret a speaker's purpose by explaining the content, evaluating the delivery of the presentation, and asking questions or making comments about the evidence that supports a speaker's claims;
- (B) follow and give complex oral instructions to perform specific tasks, answer questions, or solve problems; and
- (C) draw conclusions about the speaker's message by considering verbal communication (e.g., word choice, tone) and nonverbal cues (e.g., posture, gestures, facial expressions).

*Source: The provisions of this §110.19 adopted to be effective September 4, 2008, 33 TexReg 7162.*

- (2) For students whose first language is not English, the students' native language serves as a foundation for English language acquisition.



(3) To meet Public Education Goal 1 of the Texas Education Code, §4.002, which states, "The students in the public education system will demonstrate exemplary performance in the reading and writing of the English language," students will accomplish the essential knowledge, skills, and student expectations at Grade 8 as described in subsection (b) of this section.

(4) To meet Texas Education Code, §28.002(h), which states, "... each school district shall foster the continuation of the tradition of teaching United States and Texas history and the free enterprise system in regular subject matter and in reading courses and in the adoption of textbooks," students will be provided oral and written narratives as well as other informational texts that can help them to become thoughtful, active citizens who appreciate the basic democratic values of our state and nation.

(b) Knowledge and skills.

(A) determine the meaning of grade-level academic English words derived from Latin, Greek, or other linguistic roots and affixes;

(B) use context (within a sentence and in larger sections of text) to determine or clarify the meaning of unfamiliar or ambiguous words or words with novel meanings;

(C) complete analogies that describe a function or its description (e.g., pen:paper as chalk: \_\_\_\_\_ or soft:kitten as hard: \_\_\_\_\_);

(D) identify common words or word parts from other languages that are used in written English (e.g., phenomenon, charisma, chorus, passé, flora, fauna); and

(E) use a dictionary, a glossary, or a thesaurus (printed or electronic) to determine the meanings, syllabication, pronunciations, alternate word choices, and parts of speech of words.

(A) analyze literary works that share similar themes across cultures;

(B) compare and contrast the similarities and differences in mythologies from various cultures (e.g., ideas of afterlife, roles and characteristics of deities, purposes of myths); and

(C) explain how the values and beliefs of particular characters are affected by the historical and cultural setting of the literary work.

epic poetry, lyric poetry).

- (A) analyze linear plot developments (e.g., conflict, rising action, falling action, resolution, subplots) to determine whether and how conflicts are resolved;
- (B) analyze how the central characters' qualities influence the theme of a fictional work and resolution of the central conflict; and
- (C) analyze different forms of point of view, including limited versus omniscient, subjective versus objective.

aphorisms, epigraphs) to appeal to the audience.

- (A) summarize the main ideas, supporting details, and relationships among ideas in text succinctly in ways that maintain meaning and logical order;
  - (B) distinguish factual claims from commonplace assertions and opinions and evaluate inferences from their logic in text;
  - (C) make subtle inferences and draw complex conclusions about the ideas in text and their organizational patterns; and
  - (D) synthesize and make logical connections between ideas within a text and across two or three texts representing similar or different genres and support those findings with textual evidence.
- (A) compare and contrast persuasive texts that reached different conclusions about the same issue and explain how the authors reached their conclusions through analyzing the evidence each presents; and
  - (B) analyze the use of such rhetorical and logical fallacies as loaded terms, caricatures, leading questions, false assumptions, and incorrect premises in persuasive texts.
- (A) analyze text for missing or extraneous information in multi-step directions or legends for diagrams; and

(B) evaluate graphics for their clarity in communicating meaning or achieving a specific purpose.

Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:

(A) write an imaginative story that:

- (i) sustains reader interest;
- (ii) includes well-paced action and an engaging story line;
- (iii) creates a specific, believable setting through the use of sensory details;
- (iv) develops interesting characters; and
- (v) uses a range of literary strategies and devices to enhance the style and tone; and

(B) write a poem using:

- (i) poetic techniques (e.g., rhyme scheme, meter);
- (ii) figurative language (e.g., personification, idioms, hyperbole); and
- (iii) graphic elements (e.g., word position).

(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and includes reflections on decisions, actions, and/or consequences.

(17) Writing/Expository and Procedural Texts. Students write expository and procedural or work-related texts to communicate ideas and information to specific audiences for specific purposes. Students are expected to:

(A) write a multi-paragraph essay to convey information about a topic that:

- (i) presents effective introductions and concluding paragraphs;
- (ii) contains a clearly stated purpose or controlling idea;
- (iii) is logically organized with appropriate facts and details and includes no extraneous information or inconsistencies;

(iv) accurately synthesizes ideas from several sources; and

(v) uses a variety of sentence structures, rhetorical devices, and transitions to link paragraphs;

(B) write a letter that reflects an opinion, registers a complaint, or requests information in a business or friendly context;

(C) write responses to literary or expository texts that demonstrate the use of writing skills for a multi-paragraph essay and provide sustained evidence from the text using quotations when appropriate; and

(D) produce a multimedia presentation involving text, graphics, images, and sound using available technology.

(18) Writing/Persuasive Texts. Students write persuasive texts to influence the attitudes or actions of a specific audience on specific issues. Students are expected to write a persuasive essay to the appropriate audience that:

(A) establishes a clear thesis or position;

(B) considers and responds to the views of others and anticipates and answers reader concerns and counter-arguments; and

(C) includes evidence that is logically organized to support the author's viewpoint and that differentiates between fact and opinion.

(19) Oral and Written Conventions/Conventions. Students understand the function of and use the conventions of academic language when speaking and writing. Students will continue to apply earlier standards with greater complexity. Students are expected to:

(A) use and understand the function of the following parts of speech in the context of reading, writing, and speaking:

(i) verbs (perfect and progressive tenses) and participles;

(ii) appositive phrases;

(iii) adverbial and adjectival phrases and clauses;

(iv) relative pronouns (e.g., whose, that, which); and

(v) subordinating conjunctions (e.g., because, since);

(B) write complex sentences and differentiate between main versus subordinate clauses; and

(C) use a variety of complete sentences (e.g., simple, compound, complex) that include properly placed modifiers, correctly identified antecedents, parallel structures, and consistent tenses.

(20) Writing/Conventions of Language/Handwriting. Students write legibly and use appropriate capitalization and punctuation conventions in their compositions. Students will continue to apply earlier standards with greater complexity. Students are expected to:

(A) use conventions of capitalization; and

(B) use correct punctuation marks, including:

(i) commas after introductory structures and dependent adverbial clauses, and correct punctuation of complex sentences; and

(ii) semicolons, colons, hyphens, parentheses, brackets, and ellipses.

(21) Oral and Written Conventions/Spelling. Students spell correctly. Students are expected to spell correctly, including using various resources to determine and check correct spellings.

(22) Research/Research Plan. Students ask open-ended research questions and develop a plan for answering them. Students are expected to:

(A) brainstorm, consult with others, decide upon a topic, and formulate a major research question to address the major research topic; and

(B) apply steps for obtaining and evaluating information from a wide variety of sources and create a written plan after preliminary research in reference works and additional text searches.

(23) Research/Gathering Sources. Students determine, locate, and explore the full range of relevant sources addressing a research question and systematically record the information they gather. Students are expected to:

(A) follow the research plan to gather information from a range of relevant print and electronic sources using advanced search strategies;

(B) categorize information thematically in order to see the larger constructs inherent in the information;

(C) record bibliographic information (e.g., author, title, page number) for all notes and sources according to a standard format; and

(D) differentiate between paraphrasing and plagiarism and identify the importance of using valid and reliable sources.

(24) Research/Synthesizing Information. Students clarify research questions and evaluate and synthesize collected information. Students are expected to:

(A) narrow or broaden the major research question, if necessary, based on further research and investigation; and

(B) utilize elements that demonstrate the reliability and validity of the sources used (e.g., publication date, coverage, language, point of view) and explain why one source is more useful and relevant than another.

(25) Research/Organizing and Presenting Ideas. Students organize and present their ideas and information according to the purpose of the research and their audience. Students are expected to synthesize the research into a written or an oral presentation that:

(A) draws conclusions and summarizes or paraphrases the findings in a systematic way;

(B) marshals evidence to explain the topic and gives relevant reasons for conclusions;

(C) presents the findings in a meaningful format; and

(D) follows accepted formats for integrating quotations and citations into the written text to maintain a flow of ideas.

(26) Listening and Speaking/Listening. Students will use comprehension skills to listen attentively to others in formal and informal settings. Students will continue to apply earlier standards with greater complexity. Students are expected to:

(A) listen to and interpret a speaker's purpose by explaining the content, evaluating the delivery of the presentation, and asking questions or making comments about the evidence that supports a speaker's claims;

(B) follow and give complex oral instructions to perform specific tasks, answer questions, or solve problems; and

(C) summarize formal and informal presentations, distinguish between facts and opinions, and determine the effectiveness of rhetorical devices.

(27) Listening and Speaking/Speaking. Students speak clearly and to the point, using the conventions of language. Students will continue to apply earlier standards with greater complexity. Students are expected to advocate a position using anecdotes, analogies, and/or illustrations, and use eye contact, speaking rate, volume, enunciation, a variety of natural gestures, and conventions of language to communicate ideas effectively.

(28) Listening and Speaking/Teamwork. Students work productively with others in teams. Students will continue to apply earlier standards with greater complexity. Students are expected to participate productively in discussions, plan agendas with clear goals and deadlines, set time limits for speakers, take notes, and vote on key issues.

*Source: The provisions of this §110.20 adopted to be effective September 4, 2008, 33 TexReg 7162.*

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§110.25. English Language Arts and Reading, Reading (Elective Credit).

(a) Introduction.

(1) Reading offers students an opportunity to read with competence, confidence, and understanding through instruction in comprehension strategies, word recognition, and vocabulary. Middle school students read, write, listen, speak, and view to learn more about the world around them and to create, clarify, critique, and appreciate ideas and responses. Middle school students complete research projects or locate answers to questions using multiple texts and resources. In addition, middle school students continue to read on their own or listen to texts read aloud for the purpose of enjoyment. Middle school students read both printed texts and electronic media independently, bringing with them various strategies to aid in comprehension. Significant blocks of time are provided for reading both independent and instructional-level material for varied purposes such as collecting information, learning about and appreciating the writer's craft, and discovering models for their own writing. Middle school students respond to texts through various avenues such as talk, print and electronic formats, connecting their knowledge of the world with the text being read. For middle school students whose first language is not English, the students' native language serves as a foundation for English language acquisition and language learning.

(2) The essential knowledge and skills as well as the student expectations for Reading, an elective course, are described in subsection (b) of this section.

(b) Knowledge and skills.

(1) The student uses a variety of word recognition strategies. The student is expected to:

(A) apply knowledge of letter-sound correspondences, language structure, and context to recognize words; and

(B) use dictionaries, glossaries, and other sources to confirm pronunciations and meanings of unfamiliar words.

(2) The student acquires vocabulary through reading and systematic word study. The student is expected to:

(A) expand vocabulary by reading, viewing, listening, and discussing;

(B) determine word meaning by using context;

(C) use spelling, prefixes and suffixes, roots, and word origins to understand meanings;

(D) use reference aids such as a glossary, dictionary, thesaurus, and available technology to determine meanings and pronunciations; and

(E) identify analogies, homonyms, synonyms/antonyms, and connotation/denotation.

(3) The student reads with fluency and understanding in increasingly demanding texts. The student is expected to:

(A) read silently for a variety of purposes with comprehension for sustained periods of time;

(B) adjust reading rate based on purposes for reading; and

(C) read orally at a rate that enables comprehension.

(4) The student comprehends selections using a variety of strategies. The student is expected to:

(A) use prior knowledge and experience to comprehend;

(B) determine purpose for reading;

(C) self-monitor reading and adjust when confusion occurs by rereading, using resources, and questioning;

(D) summarize texts by identifying main ideas and relevant details;



- (E) make inferences such as drawing conclusions and making generalizations or predictions, supporting them with prior experiences and textual evidence;
- (F) analyze and use both narrative and expository text structures: sequence, description, problem/solution, compare/contrast, and cause/effect;
- (G) make connections and find patterns, similarities, and differences across texts;
- (H) construct visual images based on text descriptions;
- (I) determine important ideas from texts and oral presentations;
- (J) manage text by using practices such as previewing, highlighting, making marginal notes, notetaking, outlining, and journaling; and
- (K) use questioning to enhance comprehension before, during, and after reading.

(5) The student reads texts to find information on self-selected and assigned topics. The student is expected to:

- (A) generate relevant, interesting, and researchable questions;
- (B) locate appropriate print and non-print information using text and technical resources;
- (C) organize and record new information in systematic ways to develop notes, charts, and graphic organizers;
- (D) communicate information gained from reading;
- (E) use compiled information and knowledge to raise additional unanswered questions; and
- (F) use text organizers such as overviews, headings, and graphic features to locate and categorize information.

(6) The student reads for different purposes in varied sources, both narrative and expository. The student is expected to:

- (A) read to enjoy, to complete a task, to gather information, to be informed, to solve problems, to answer questions, to analyze, to interpret, and to evaluate;
- (B) read sources such as literature, diaries, journals, textbooks, maps, newspapers, letters, speeches, memoranda, electronic texts, and technical documents; and

- (C) understand and interpret visual representations.
- (7) The student formulates and supports responses to various types of texts. The student is expected to:
- (A) respond actively to texts in both aesthetic and critical ways;
  - (B) respond to text through discussion, journal writing, performance, and visual representation; and
  - (C) support responses by using prior knowledge and experience and/or citing textual evidence which may consist of a direct quotation, paraphrase, or specific synopsis.
- (8) The student reads critically to evaluate texts in order to determine the credibility of sources. The student is expected to:
- (A) evaluate the credibility of informational sources and their relevance for assigned and self-selected topics;
  - (B) evaluate how a writer's motivation, stance, or position may affect text credibility, structure, or tone;
  - (C) analyze aspects of text, such as patterns of organization and choice of language, for persuasive effect;
  - (D) recognize modes of reasoning, such as induction and deduction; and
  - (E) recognize logical and illogical arguments in text.
- (9) The student reads to increase knowledge of own culture, the culture of others, and the common elements of cultures. The student is expected to:
- (A) compare text events with personal and other readers' experiences; and
  - (B) recognize and discuss literary themes and connections that cross cultures.

*Source: The provisions of this §110.25 adopted to be effective September 1, 1998, 22 TexReg 7549; amended to be effective September 4, 2008, 33 TexReg 7162.*

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§110.26. English Language Arts and Reading, Speech (Elective Credit).

(a) Introduction.

(1) Communication is an integral part of our social, cultural, and academic lives; therefore, middle school students should develop effective communication skills to further their academic pursuits and to prepare for interaction in social, civic, and professional roles. Competent communicators develop skills focused on five identifiable functions of expressing and responding appropriately to feelings, participating in social traditions, informing, persuading, creating, and imagining. To become competent communicators, students will develop and apply skills in using oral language, nonverbal communication, and listening in interpersonal, group, academic, and public contexts. For middle school students whose first language is not English, the students' experiences with oral communication serve as a foundation for English language acquisition.

(2) The essential knowledge and skills as well as the student expectations for Speech, an elective course, are described in subsection (b) of this section.

(b) Knowledge and skills.

(1) Understanding the communication process. The student demonstrates a knowledge of communication. The student is expected to:

(A) recognize and explain the importance of communication in social, academic, civic, and professional roles;

(B) identify the related components of the communication process;

(C) identify standards of making communication choices considering appropriateness for self, listener, occasion, and task;

(D) identify characteristics of oral language and analyze standards for using oral language appropriately;

(E) identify the importance of using appropriate nonverbal communication;

(F) identify and explain the components of listening process;

(G) identify the kinds of listening and analyze skills related to each type;

(H) analyze how perception of self and others affects communication;

(I) analyze and develop techniques and strategies for building self-confidence and reducing communication apprehension;

(J) identify and explain factors that influence communication decisions such as knowledge, attitudes, and culture; and

(K) explain the importance of assuming responsibility for communication decisions.

(2) Expressing and responding. The student develops skills for expressing and responding appropriately in a variety of situations. The student is expected to:

(A) use appropriate verbal and nonverbal communication skills in interpersonal situations;

(B) use reflective empathic listening skills to respond appropriately in interpersonal situations;

(C) explain the importance of using tact, courtesy, and assertiveness appropriately in interpersonal situations;

(D) identify kinds of groups and analyze basic principles of group dynamics;

(E) use appropriate communication skills in groups to make plans or accomplish goals;

(F) use appropriate strategies for agreeing or disagreeing in interpersonal and group situations; and

(G) prepare and present an oral statement on a topic of interest or concern.

(3) Participating in social traditions. The student develops an understanding of social traditions. The student is expected to:

(A) identify the importance of social traditions and ceremonies in various contexts and cultures;

(B) communicate appropriately in a variety of interpersonal social traditions, including making and acknowledging introductions and giving and accepting praise and criticism;

(C) employ parliamentary procedure in a group meeting;

(D) use effective techniques to prepare, organize, and present a speech for a special occasion; and

(E) use appreciative and critical-listening skills to analyze, evaluate, and respond appropriately to class, public, or media.

(4) Informing. The student expresses and responds appropriately to informative messages. The student is expected to:

- (A) research ideas and topics to acquire accurate information from a variety of primary, secondary, and technological sources;
- (B) use appropriate communication skills to request, provide, and respond to information in interpersonal conversations;
- (C) use appropriate verbal, nonverbal, and listening skills in interviews;
- (D) use appropriate information and effective critical-thinking skills in group decision-making and problem-solving processes;
- (E) plan and present an informative group discussion for an audience;
- (F) plan, research, organize, prepare, and present an informative speech;
- (G) rehearse speeches to gain command of ideas and information, reduce communication apprehension, develop confidence, and practice presentation skills;
- (H) use notes, manuscripts, rostrum, and visual and auditory aids appropriately in speeches;
- (I) use effective verbal and nonverbal communication in presenting informative speeches;
- (J) apply critical-listening skills to analyze, evaluate, and respond appropriately to informative group discussions and speeches; and
- (K) develop and use communication skills needed for academic achievement such as participating appropriately in class discussions, using active and critical-listening skills, and taking accurate notes.

(5) Persuading. The student expresses and responds appropriately to persuasive messages. The student is expected to:

- (A) recognize and develop skills for analyzing persuasive strategies such as propaganda devices and emotional appeals;
- (B) respond appropriately to persuasive messages in situations such as accepting or rejecting peer pressure and making or responding to requests;
- (C) plan, research, organize, prepare, and present a persuasive speech;
- (D) demonstrate persuasive skills in informal or formal argumentation, discussions, or debates; and

(E) develop and use critical listening skills to analyze, evaluate, and respond appropriately to class, public, or media presentations.

(6) Creating and imagining. The student uses imagination and creativity to prepare and perform various types of literature. The student is expected to:

(A) use imagination to plan, organize, and tell stories;

(B) use appropriate verbal and nonverbal skills to share stories;

(C) select, analyze, adapt, interpret, and rehearse a variety of literary selections;

(D) use effective group decision-making skills in group performances;

(E) use appropriate verbal and nonverbal skills in individual or group interpretations of literature; and

(F) use appreciative and critical-listening skills to respond appropriately to class, public, or media performances.

*Source: The provisions of this §110.26 adopted to be effective September 1, 1998, 22 TexReg 7549; amended to be effective September 4, 2008, 33 TexReg 7162.*

Chapter 113. Texas Essential Knowledge and Skills for Social Studies  
Subchapter B. Middle School

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Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code, §§7.102(c)(4), 28.002, and 28.008, unless otherwise noted.

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§113.17. Implementation of Texas Essential Knowledge and Skills for Social Studies, Middle School, Beginning with School Year 2011-2012.

The provisions of §§113.18-113.20 of this subchapter shall be implemented by school districts beginning with the 2011-2012 school year and at that time shall supersede §§113.22-113.24 of this subchapter.

*Source: The provisions of this §113.17 adopted to be effective August 23, 2010, 35 TexReg 7232.*

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§113.18. Social Studies, Grade 6, Beginning with School Year 2011-2012.

(a) Introduction.

(1) In Grade 6, students study people, places, and societies of the contemporary world. Societies for study are from the following regions of the world: Europe, Russia and the Eurasian republics, North America, Central America and the Caribbean, South America, Southwest Asia-North Africa, Sub-Saharan Africa, South Asia, East Asia, Southeast Asia, Australia, and the Pacific realm. Students describe the influence of individuals and groups on historical and contemporary events in those societies and identify the locations and geographic characteristics of various societies. Students identify different ways of organizing economic and governmental systems. The concepts of limited and unlimited government are introduced, and students describe the nature of citizenship in various societies. Students compare institutions common to all societies such as government, education, and religious institutions. Students explain how the level of technology affects the development of the various societies and identify different points of view about events. The concept of frame of reference is introduced as an influence on an individual's point of view.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as biographies, autobiographies, novels, speeches, letters, poetry, songs, and artworks is encouraged. Motivating resources are available from museums, art galleries, and historical sites.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes. Skills listed in the social studies skills strand in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together. Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(4) Students identify the role of the U.S. free enterprise system within the parameters of this course and understand that this system may also be referenced as capitalism or the free market system.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

(6) Students understand that a constitutional republic is a representative form of government whose representatives derive their authority from the consent of the governed, serve for an established tenure, and are sworn to uphold the constitution.

(7) State and federal laws mandate a variety of celebrations and observances, including Celebrate Freedom Week.

(A) Each social studies class shall include, during Celebrate Freedom Week as provided under the TEC, §29.907, or during another full school week as determined by the board of trustees of a school district, appropriate instruction concerning the intent, meaning, and importance of the Declaration of Independence and the U.S. Constitution, including the Bill of Rights, in their historical contexts. The study of the Declaration of Independence must include the study of the relationship of the ideas expressed in that document to subsequent American history, including the relationship of its ideas to the rich diversity of our people as a nation of immigrants, the American Revolution, the formulation of the U.S. Constitution, and the abolitionist movement, which led to the Emancipation Proclamation and the women's suffrage movement.

(B) Each school district shall require that, during Celebrate Freedom Week or other week of instruction prescribed under subparagraph (A) of this paragraph, students in Grades 3-12 study and recite the following text: "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the



Pursuit of Happiness--That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed."

(8) Students identify and discuss how the actions of U.S. citizens and the local, state, and federal governments have either met or failed to meet the ideals espoused in the founding documents.

(b) Knowledge and skills.

(1) History. The student understands that historical events influence contemporary events. The student is expected to:

(A) trace characteristics of various contemporary societies in regions that resulted from historical events or factors such as invasion, conquests, colonization, immigration, and trade; and

(B) analyze the historical background of various contemporary societies to evaluate relationships between past conflicts and current conditions.

(2) History. The student understands the influences of individuals and groups from various cultures on various historical and contemporary societies. The student is expected to:

(A) identify and describe the influence of individual or group achievements on various historical or contemporary societies such as the classical Greeks on government and the American Revolution on the French Revolution; and

(B) evaluate the social, political, economic, and cultural contributions of individuals and groups from various societies, past and present.

(3) Geography. The student uses geographic tools to answer geographic questions. The student is expected to:

(A) pose and answer geographic questions, including: Where is it located? Why is it there? What is significant about its location? How is its location related to the location of other people, places, and environments?;

(B) pose and answer questions about geographic distributions and patterns for various world regions and countries shown on maps, graphs, charts, models, and databases;

(C) compare various world regions and countries using data from geographic tools, including maps, graphs, charts, databases, and models; and

(D) create thematic maps, graphs, charts, models, and databases depicting aspects such as population, disease, and economic activities of various world regions and countries.

(4) Geography. The student understands the factors that influence the locations and characteristics of locations of various contemporary societies on maps and globes and uses latitude and longitude to determine absolute locations. The student is expected to:

(A) locate various contemporary societies on maps and globes using latitude and longitude to determine absolute location;

(B) identify and explain the geographic factors responsible for patterns of population in places and regions;

(C) explain ways in which human migration influences the character of places and regions;

(D) identify and locate major physical and human geographic features such as landforms, water bodies, and urban centers of various places and regions;

(E) draw sketch maps that illustrate various places and regions; and

(F) identify the location of major world countries such as Canada, Mexico, France, Germany, the United Kingdom, Italy, Spain, Norway, Sweden, Russia, South Africa, Nigeria, Iraq, Afghanistan, Israel, Iran, India, Pakistan, the People's Republic of China, the Republic of China (Taiwan), Japan, North and South Korea, Indonesia, and Australia.

(5) Geography. The student understands how geographic factors influence the economic development, political relationships, and policies of societies. The student is expected to:

(A) identify and explain the geographic factors responsible for the location of economic activities in places and regions;

(B) identify geographic factors such as location, physical features, transportation corridors and barriers, and distribution of natural resources that influence a society's ability to control territory; and

(C) explain the impact of geographic factors on economic development and the domestic and foreign policies of societies.

(6) Geography. The student understands that geographical patterns result from physical environmental processes. The student is expected to:

(A) describe and explain the effects of physical environmental processes such as erosion, ocean currents, and earthquakes on Earth's surface;

(B) identify the location of renewable and nonrenewable natural resources such as fresh water, fossil fuels, fertile soils, and timber; and

(C) analyze the effects of the interaction of physical processes and the environment on humans.

(7) Geography. The student understands the impact of interactions between people and the physical environment on the development and conditions of places and regions. The student is expected to:

(A) identify and analyze ways people have adapted to the physical environment in various places and regions;

(B) identify and analyze ways people have modified the physical environment such as mining, irrigation, and transportation infrastructure; and

(C) describe ways in which technology influences human interactions with the environment such as humans building dams for flood control.

(8) Economics. The student understands the factors of production in a society's economy. The student is expected to:

(A) describe ways in which the factors of production (natural resources, labor, capital, and entrepreneurs) influence the economies of various contemporary societies;

(B) identify problems and issues that may arise when one or more of the factors of production is in relatively short supply; and

(C) explain the impact of relative scarcity of resources on international trade and economic interdependence among and within societies.

(9) Economics. The student understands the various ways in which people organize economic systems. The student is expected to:

(A) compare ways in which various societies organize the production and distribution of goods and services;

(B) compare and contrast free enterprise, socialist, and communist economies in various contemporary societies, including the benefits of the U.S. free enterprise system;

(C) understand the importance of morality and ethics in maintaining a functional free enterprise system; and

(D) examine the record of collective, non-free market economic systems in contemporary world societies.

(10) Economics. The student understands categories of economic activities and the data used to measure a society's economic level. The student is expected to:

(A) define and give examples of agricultural, wholesale, retail, manufacturing (goods), and service industries;

(B) describe levels of economic development of various societies using indicators such as life expectancy, gross domestic product (GDP), GDP per capita, and literacy; and

(C) identify and describe the effects of government regulation and taxation on economic development and business planning.

(11) Government. The student understands the concepts of limited and unlimited governments. The student is expected to:

(A) identify and describe examples of limited and unlimited governments such as constitutional (limited) and totalitarian (unlimited);

(B) compare the characteristics of limited and unlimited governments;

(C) identify reasons for limiting the power of government; and

(D) review the record of human rights abuses of limited or unlimited governments such as the oppression of Christians in Sudan.

(12) Government. The student understands various ways in which people organize governments. The student is expected to:

(A) identify and give examples of governments with rule by one, few, or many;

(B) compare ways in which various societies such as China, Germany, India, and Russia organize government and how they function; and

(C) identify historical origins of democratic forms of government such as Ancient Greece.

(13) Citizenship. The student understands that the nature of citizenship varies among societies. The student is expected to:

- (A) describe roles and responsibilities of citizens in various contemporary societies, including the United States;
- (B) explain how opportunities for citizens to participate in and influence the political process vary among various contemporary societies; and
- (C) compare the role of citizens in the United States with the role of citizens from various contemporary societies with representative and nonrepresentative governments.

(14) Citizenship. The student understands the relationship among individual rights, responsibilities, duties, and freedoms in societies with representative governments. The student is expected to:

- (A) identify and explain the duty of civic participation in societies with representative governments; and
- (B) explain relationships among rights, responsibilities, and duties in societies with representative governments.

(15) Culture. The student understands the similarities and differences within and among cultures in various world societies. The student is expected to:

- (A) define culture and the common traits that unify a culture region;
- (B) identify and describe common traits that define cultures;
- (C) define a multicultural society and consider both the positive and negative qualities of multiculturalism;
- (D) analyze the experiences and evaluate the contributions of diverse groups to multicultural societies;
- (E) analyze the similarities and differences among various world societies; and
- (F) identify and explain examples of conflict and cooperation between and among cultures.

(16) Culture. The student understands that all societies have basic institutions in common even though the characteristics of these institutions may differ. The student is expected to:

- (A) identify institutions basic to all societies, including government, economic, educational, and religious institutions;

- (B) compare characteristics of institutions in various contemporary societies; and
- (C) analyze the efforts and activities institutions use to sustain themselves over time such as the development of an informed citizenry through education and the use of monumental architecture by religious institutions.

(17) Culture. The student understands relationships that exist among world cultures. The student is expected to:

- (A) identify and describe how culture traits such as trade, travel, and war spread;
- (B) identify and describe factors that influence cultural change such as improved communication, transportation, and economic development;
- (C) evaluate the impact of improved communication technology among cultures;
- (D) identify and define the impact of cultural diffusion on individuals and world societies; and
- (E) identify examples of positive and negative effects of cultural diffusion.

(18) Culture. The student understands the relationship that exists between the arts and the societies in which they are produced. The student is expected to:

- (A) explain the relationships that exist between societies and their architecture, art, music, and literature;
- (B) relate ways in which contemporary expressions of culture have been influenced by the past;
- (C) describe ways in which contemporary issues influence creative expressions; and
- (D) identify examples of art, music, and literature that have transcended the boundaries of societies and convey universal themes such as religion, justice, and the passage of time.

(19) Culture. The student understands the relationships among religion, philosophy, and culture. The student is expected to:

- (A) explain the relationship among religious ideas, philosophical ideas, and cultures; and

(B) explain the significance of religious holidays and observances such as Christmas, Easter, Ramadan, the annual hajj, Yom Kippur, Rosh Hashanah, Diwali, and Vaisakhi in various contemporary societies.

(20) Science, technology, and society. The student understands the influences of science and technology on contemporary societies. The student is expected to:

(A) give examples of scientific discoveries and technological innovations, including the roles of scientists and inventors, that have transcended the boundaries of societies and have shaped the world;

(B) explain how resources, belief systems, economic factors, and political decisions have affected the use of technology; and

(C) make predictions about future social, political, economic, cultural, and environmental impacts that may result from future scientific discoveries and technological innovations.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to:

(A) differentiate between, locate, and use valid primary and secondary sources such as computer software; interviews; biographies; oral, print, and visual material; and artifacts to acquire information about various world cultures;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

(D) identify different points of view about an issue or current topic;

(E) identify the elements of frame of reference that influenced participants in an event; and

(F) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

(A) use social studies terminology correctly;

(B) incorporate main and supporting ideas in verbal and written communication based on research;

(C) express ideas orally based on research and experiences;

(D) create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies based on research;

(E) use standard grammar, spelling, sentence structure, and punctuation; and

(F) use proper citations to avoid plagiarism.

(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

(A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and

(B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.18 adopted to be effective August 23, 2010, 35 TexReg 7232.*

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§113.19. Social Studies, Grade 7, Beginning with School Year 2011-2012.

(a) Introduction.

(1) In Grade 7, students study the history of Texas from early times to the present. Content is presented with more depth and breadth than in Grade 4. Students examine the full scope of Texas history, including Natural Texas and its People; Age of Contact; Spanish Colonial; Mexican National; Revolution and Republic; Early Statehood; Texas in the Civil War and Reconstruction; Cotton, Cattle, and Railroads; Age of Oil; Texas in the Great Depression and World War II; Civil Rights and Conservatism; and Contemporary Texas eras. The focus in each era is on key individuals, events, and issues and their impact. Students identify regions of Texas and the distribution of population within and among the regions and explain the factors that caused Texas to change from an agrarian to an urban society. Students describe the structure and functions of municipal, county, and state governments, explain the influence of the U.S. Constitution on the Texas Constitution, and examine the rights and responsibilities of Texas citizens. Students use primary and secondary sources to examine the rich and diverse cultural background of



Texas as they identify the different racial and ethnic groups that settled in Texas to build a republic and then a state. Students analyze the impact of scientific discoveries and technological innovations on the development of Texas in various industries such as agricultural, energy, medical, computer, and aerospace. Students use primary and secondary sources to acquire information about Texas.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as biographies, autobiographies, novels, speeches, letters, diaries, poetry, songs, and images is encouraged. Motivating resources are available from museums, historical sites, presidential libraries, and local and state preservation societies.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes. Skills listed in the social studies skills strand in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together. Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(4) Students identify the role of the U.S. free enterprise system within the parameters of this course and understand that this system may also be referenced as capitalism or the free market system.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

(6) Students understand that a constitutional republic is a representative form of government whose representatives derive their authority from the consent of the governed, serve for an established tenure, and are sworn to uphold the constitution.

(7) State and federal laws mandate a variety of celebrations and observances, including Celebrate Freedom Week.

(A) Each social studies class shall include, during Celebrate Freedom Week as provided under the TEC, §29.907, or during another full school week as determined by the board of trustees of a school district, appropriate instruction concerning the intent, meaning, and importance of the Declaration of Independence and the U.S. Constitution, including the Bill of Rights, in their historical contexts. The study of the Declaration of Independence must include the

study of the relationship of the ideas expressed in that document to subsequent American history, including the relationship of its ideas to the rich diversity of our people as a nation of immigrants, the American Revolution, the formulation of the U.S. Constitution, and the abolitionist movement, which led to the Emancipation Proclamation and the women's suffrage movement.

(B) Each school district shall require that, during Celebrate Freedom Week or other week of instruction prescribed under subparagraph (A) of this paragraph, students in Grades 3-12 study and recite the following text: "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness--That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed."

(8) Students identify and discuss how the actions of U.S. citizens and the local, state, and federal governments have either met or failed to meet the ideals espoused in the founding documents.

(b) Knowledge and skills.

(1) History. The student understands traditional historical points of reference in Texas history. The student is expected to:

(A) identify the major eras in Texas history, describe their defining characteristics, and explain why historians divide the past into eras, including Natural Texas and its People; Age of Contact; Spanish Colonial; Mexican National; Revolution and Republic; Early Statehood; Texas in the Civil War and Reconstruction; Cotton, Cattle, and Railroads; Age of Oil; Texas in the Great Depression and World War II; Civil Rights and Conservatism; and Contemporary Texas;

(B) apply absolute and relative chronology through the sequencing of significant individuals, events, and time periods; and

(C) explain the significance of the following dates: 1519, mapping of the Texas coast and first mainland Spanish settlement; 1718, founding of San Antonio; 1821, independence from Spain; 1836, Texas independence; 1845, annexation; 1861, Civil War begins; 1876, adoption of current state constitution; and 1901, discovery of oil at Spindletop.

(2) History. The student understands how individuals, events, and issues through the Mexican National Era shaped the history of Texas. The student is expected to:

(A) compare the cultures of American Indians in Texas prior to European colonization such as Gulf, Plains, Puebloan, and Southeastern;

(B) identify important individuals, events, and issues related to European exploration of Texas such as Alonso Álvarez de Pineda, Álvar Núñez Cabeza de Vaca and his writings, the search for gold, and the conflicting territorial claims between France and Spain;

(C) identify important events and issues related to European colonization of Texas, including the establishment of Catholic missions, towns, and ranches, and individuals such as Fray Damián Massanet, José de Escandón, Antonio Margil de Jesús, and Francisco Hidalgo;

(D) identify the individuals, issues, and events related to Mexico becoming an independent nation and its impact on Texas, including Texas involvement in the fight for independence, José Gutiérrez de Lara, the Battle of Medina, the Mexican federal Constitution of 1824, the merger of Texas and Coahuila as a state, the State Colonization Law of 1825, and slavery;

(E) identify the contributions of significant individuals, including Moses Austin, Stephen F. Austin, Erasmo Seguín, Martín De León, and Green DeWitt, during the Mexican settlement of Texas; and

(F) contrast Spanish, Mexican, and Anglo purposes for and methods of settlement in Texas.

(3) History. The student understands how individuals, events, and issues related to the Texas Revolution shaped the history of Texas. The student is expected to:

(A) trace the development of events that led to the Texas Revolution, including the Fredonian Rebellion, the Mier y Terán Report, the Law of April 6, 1830, the Turtle Bayou Resolutions, and the arrest of Stephen F. Austin;

(B) explain the roles played by significant individuals during the Texas Revolution, including George Childress, Lorenzo de Zavala, James Fannin, Sam Houston, Antonio López de Santa Anna, Juan N. Seguín, and William B. Travis;

(C) explain the issues surrounding significant events of the Texas Revolution, including the Battle of Gonzales, William B. Travis's letter "To the People of Texas and All Americans in the World," the siege of the Alamo and all the heroic defenders who gave their lives there, the Constitutional Convention of 1836, Fannin's surrender at Goliad, and the Battle of San Jacinto; and

(D) explain how the establishment of the Republic of Texas brought civil, political, and religious freedom to Texas.

(4) History. The student understands how individuals, events, and issues shaped the history of the Republic of Texas and early Texas statehood. The student is expected to:

(A) identify individuals, events, and issues during the administrations of Republic of Texas Presidents Houston, Lamar, and Jones, including the Texas Navy, the Texas Rangers, Edwin W. Moore, Jack Coffee Hays, Chief Bowles, William Goyens, Mary Maverick, José Antonio Navarro, the Córdova Rebellion, the Council House Fight, the Santa Fe Expedition, public debt, and the roles of racial and ethnic groups;

(B) analyze the causes of and events leading to Texas annexation; and

(C) identify individuals, events, and issues during early Texas statehood, including the U.S.-Mexican War, the Treaty of Guadalupe-Hidalgo, population growth, and the Compromise of 1850.

(5) History. The student understands how events and issues shaped the history of Texas during the Civil War and Reconstruction. The student is expected to:

(A) explain reasons for the involvement of Texas in the Civil War such as states' rights, slavery, sectionalism, and tariffs;

(B) analyze the political, economic, and social effects of the Civil War and Reconstruction in Texas; and

(C) identify significant individuals and events concerning Texas and the Civil War such as John Bell Hood, John Reagan, Francis Lubbock, Thomas Green, John Magruder and the Battle of Galveston, the Battle of Sabine Pass, and the Battle of Palmito Ranch.

(6) History. The student understands how individuals, events, and issues shaped the history of Texas from Reconstruction through the beginning of the 20th century. The student is expected to:

(A) identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the factors leading to the expansion of the Texas frontier, the effects of westward expansion on American Indians, the buffalo soldiers, and Quanah Parker;

(B) identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the development of the cattle industry from its Spanish beginnings and the myths and realities of the cowboy way of life;

(C) identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the effects of the growth of railroads and the contributions of James Hogg; and

(D) explain the political, economic, and social impact of the agricultural industry and the development of West Texas resulting from the close of the frontier.

(7) History. The student understands how individuals, events, and issues shaped the history of Texas during the 20th and early 21st centuries. The student is expected to:

(A) explain the political, economic, and social impact of the oil industry on the industrialization of Texas;

(B) define and trace the impact of "boom-and-bust" cycles of leading Texas industries throughout the 20th and early 21st centuries such as farming, oil and gas production, cotton, ranching, real estate, banking, and computer technology;

(C) describe and compare the impact of the Progressive and other reform movements in Texas in the 19th and 20th centuries such as the Populists, women's suffrage, agrarian groups, labor unions, and the evangelical movement of the late 20th century;

(D) describe and compare the civil rights and equal rights movements of various groups in Texas in the 20th century and identify key leaders in these movements, including James L. Farmer Jr., Hector P. Garcia, Oveta Culp Hobby, Lyndon B. Johnson, the League of United Latin American Citizens (LULAC), Jane McCallum, and Lulu Belle Madison White;

(E) analyze the political, economic, and social impact of major events, including World War I, the Great Depression, and World War II, on the history of Texas; and

(F) analyze the political, economic, and social impact of major events in the latter half of the 20th and early 21st centuries such as major conflicts, the emergence of a two-party system, political and economic controversies, immigration, and migration.

(8) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to:

(A) create and interpret thematic maps, graphs, charts, models, and databases representing various aspects of Texas during the 19th, 20th, and 21st centuries; and

(B) analyze and interpret geographic distributions and patterns in Texas during the 19th, 20th, and 21st centuries.

(9) Geography. The student understands the location and characteristics of places and regions of Texas. The student is expected to:

(A) locate the Mountains and Basins, Great Plains, North Central Plains, and Coastal Plains regions and places of importance in Texas during the 19th, 20th, and 21st centuries such as major cities, rivers, natural and historic landmarks, political and cultural regions, and local points of interest;

(B) compare places and regions of Texas in terms of physical and human characteristics; and

(C) analyze the effects of physical and human factors such as climate, weather, landforms, irrigation, transportation, and communication on major events in Texas.

(10) Geography. The student understands the effects of the interaction between humans and the environment in Texas during the 19th, 20th, and 21st centuries. The student is expected to:

(A) identify ways in which Texans have adapted to and modified the environment and analyze the positive and negative consequences of the modifications; and

(B) explain ways in which geographic factors such as the Galveston Hurricane of 1900, the Dust Bowl, limited water resources, and alternative energy sources have affected the political, economic, and social development of Texas.

(11) Geography. The student understands the characteristics, distribution, and migration of population in Texas in the 19th, 20th, and 21st centuries. The student is expected to:

(A) analyze why immigrant groups came to Texas and where they settled;

(B) analyze how immigration and migration to Texas in the 19th, 20th, and 21st centuries have influenced Texas;

(C) analyze the effects of the changing population distribution and growth in Texas during the 20th and 21st centuries and the additional need for education, health care, and transportation; and

(D) describe the structure of the population of Texas using demographic concepts such as growth rate and age distribution.

(12) Economics. The student understands the factors that caused Texas to change from an agrarian to an urban society. The student is expected to:

(A) explain economic factors that led to the urbanization of Texas;

(B) trace the development of major industries that contributed to the urbanization of Texas such as transportation, oil and gas, and manufacturing; and

(C) explain the changes in the types of jobs and occupations that have resulted from the urbanization of Texas.

(13) Economics. The student understands the interdependence of the Texas economy with the United States and the world. The student is expected to:

(A) analyze the impact of national and international markets and events on the production of goods and services in Texas such as agriculture, oil and gas, and computer technology;

(B) analyze the impact of economic concepts within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas; and

(C) analyze the impact of significant industries in Texas such as oil and gas, aerospace, medical, and computer technologies on local, national, and international markets.

(14) Government. The student understands the basic principles reflected in the Texas Constitution. The student is expected to:

(A) identify how the Texas Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights; and

(B) compare the principles and concepts of the Texas Constitution to the U.S. Constitution, including the Texas and U.S. Bill of Rights.

(15) Government. The student understands the structure and functions of government created by the Texas Constitution. The student is expected to:

(A) describe the structure and functions of government at municipal, county, and state levels;

(B) identify major sources of revenue for state and local governments such as property tax, sales tax, and fees; and

(C) describe the structure, funding, and governance of Texas public education, including local property taxes, bond issues, and state and federal funding supported by state and federal taxpayers.

(16) Citizenship. The student understands the rights and responsibilities of Texas citizens in a democratic society. The student is expected to:

- (A) identify rights of Texas citizens; and
- (B) explain and analyze civic responsibilities of Texas citizens and the importance of civic participation.

(17) Citizenship. The student understands the importance of the expression of different points of view in a democratic society. The student is expected to:

- (A) identify different points of view of political parties and interest groups on important Texas issues, past and present;
- (B) describe the importance of free speech and press in a democratic society; and
- (C) express and defend a point of view on an issue of historical or contemporary interest in Texas.

(18) Citizenship. The student understands the importance of effective leadership in a democratic society. The student is expected to:

- (A) identify the leadership qualities of elected and appointed leaders of Texas, past and present, including Texans who have been president of the United States; and
- (B) identify the contributions of Texas leaders, including Lawrence Sullivan "Sul" Ross, John Nance Garner ("Cactus Jack"), James A. Baker III, Henry B. González, Kay Bailey Hutchison, Barbara Jordan, Raymond L. Telles, Sam Rayburn, and Raul A. Gonzalez Jr.

(19) Culture. The student understands the concept of diversity within unity in Texas. The student is expected to:

- (A) explain how the diversity of Texas is reflected in a variety of cultural activities, celebrations, and performances;
- (B) describe how people from various racial, ethnic, and religious groups attempt to maintain their cultural heritage while adapting to the larger Texas culture;
- (C) identify examples of Spanish influence and the influence of other cultures on Texas such as place names, vocabulary, religion, architecture, food, and the arts; and



(D) identify contributions to the arts by Texans such as Roy Bedichek, Diane Gonzales Bertrand, J. Frank Dobie, Scott Joplin, Elisabet Ney, Amado Peña Jr., Walter Prescott Webb, and Horton Foote.

(20) Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on the political, economic, and social development of Texas. The student is expected to:

(A) compare types and uses of technology, past and present;

(B) identify Texas leaders in science and technology such as Walter Cunningham, Michael DeBakey, Denton Cooley, Benjy Brooks, Michael Dell, and Howard Hughes Sr.;

(C) analyze the effects of various scientific discoveries and technological innovations on the development of Texas such as advancements in the agricultural, energy, medical, computer, and aerospace industries;

(D) evaluate the effects of scientific discoveries and technological innovations on the use of resources such as fossil fuels, water, and land; and

(E) analyze how scientific discoveries and technological innovations have resulted in an interdependence among Texas, the United States, and the world.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to:

(A) differentiate between, locate, and use valid primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

(D) identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants;

(E) support a point of view on a social studies issue or event;

(F) identify bias in written, oral, and visual material;

(G) evaluate the validity of a source based on language, corroboration with other sources, and information about the author; and

(H) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

(A) use social studies terminology correctly;

(B) use standard grammar, spelling, sentence structure, punctuation, and proper citation of sources;

(C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and

(D) create written, oral, and visual presentations of social studies information.

(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

(A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and

(B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.19 adopted to be effective August 23, 2010, 35 TexReg 7232.*

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§113.20. Social Studies, Grade 8, Beginning with School Year 2011-2012.

(a) Introduction.

(1) In Grade 8, students study the history of the United States from the early colonial period through Reconstruction. The knowledge and skills in subsection (b) of this section comprise the first part of a two-year study of U.S. history. The second part, comprising U.S. history from Reconstruction to the present, is provided in §113.41 of this title (relating to United States History Studies Since 1877 (One Credit), Beginning with School Year 2011-2012). The content in Grade 8 builds upon that from Grade 5 but

provides more depth and breadth. Historical content focuses on the political, economic, religious, and social events and issues related to the colonial and revolutionary eras, the creation and ratification of the U.S. Constitution, challenges of the early republic, the Age of Jackson, westward expansion, sectionalism, Civil War, and Reconstruction. Students describe the physical characteristics of the United States and their impact on population distribution and settlement patterns in the past and present. Students analyze the various economic factors that influenced the development of colonial America and the early years of the republic and identify the origins of the free enterprise system. Students examine the American beliefs and principles, including limited government, checks and balances, federalism, separation of powers, and individual rights, reflected in the U.S. Constitution and other historical documents. Students evaluate the impact of Supreme Court cases and major reform movements of the 19th century and examine the rights and responsibilities of citizens of the United States as well as the importance of effective leadership in a constitutional republic. Students evaluate the impact of scientific discoveries and technological innovations on the development of the United States. Students use critical-thinking skills, including the identification of bias in written, oral, and visual material.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as the complete text of the U.S. Constitution and the Declaration of Independence, landmark cases of the U.S. Supreme Court, biographies, autobiographies, novels, speeches, letters, diaries, poetry, songs, and artworks is encouraged. Motivating resources are available from museums, historical sites, presidential libraries, and local and state preservation societies.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes. Skills listed in the social studies skills strand in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together. Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(4) Students identify the role of the U.S. free enterprise system within the parameters of this course and understand that this system may also be referenced as capitalism or the free market system.

(5) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code (TEC), §28.002(h).

(6) Students understand that a constitutional republic is a representative form of government whose representatives derive their authority from the consent of the governed, serve for an established tenure, and are sworn to uphold the constitution.

(7) State and federal laws mandate a variety of celebrations and observances, including Celebrate Freedom Week.

(A) Each social studies class shall include, during Celebrate Freedom Week as provided under the TEC, §29.907, or during another full school week as determined by the board of trustees of a school district, appropriate instruction concerning the intent, meaning, and importance of the Declaration of Independence and the U.S. Constitution, including the Bill of Rights, in their historical contexts. The study of the Declaration of Independence must include the study of the relationship of the ideas expressed in that document to subsequent American history, including the relationship of its ideas to the rich diversity of our people as a nation of immigrants, the American Revolution, the formulation of the U.S. Constitution, and the abolitionist movement, which led to the Emancipation Proclamation and the women's suffrage movement.

(B) Each school district shall require that, during Celebrate Freedom Week or other week of instruction prescribed under subparagraph (A) of this paragraph, students in Grades 3-12 study and recite the following text: "We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness--That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed."

(8) Students identify and discuss how the actions of U.S. citizens and the local, state, and federal governments have either met or failed to meet the ideals espoused in the founding documents.

(b) Knowledge and skills.

(1) History. The student understands traditional historical points of reference in U.S. history through 1877. The student is expected to:

(A) identify the major eras and events in U.S. history through 1877, including colonization, revolution, drafting of the Declaration of Independence, creation and ratification of the Constitution, religious revivals such as the Second Great Awakening, early republic, the Age of Jackson, westward expansion, reform movements, sectionalism, Civil War, and Reconstruction, and describe their causes and effects;

(B) apply absolute and relative chronology through the sequencing of significant individuals, events, and time periods; and

(C) explain the significance of the following dates: 1607, founding of Jamestown; 1620, arrival of the Pilgrims and signing of the Mayflower Compact; 1776, adoption of the Declaration of Independence; 1787, writing of the U.S. Constitution; 1803, Louisiana Purchase; and 1861-1865, Civil War.

(2) History. The student understands the causes of exploration and colonization eras. The student is expected to:

(A) identify reasons for European exploration and colonization of North America; and

(B) compare political, economic, religious, and social reasons for the establishment of the 13 English colonies.

(3) History. The student understands the foundations of representative government in the United States. The student is expected to:

(A) explain the reasons for the growth of representative government and institutions during the colonial period;

(B) analyze the importance of the Mayflower Compact, the Fundamental Orders of Connecticut, and the Virginia House of Burgesses to the growth of representative government; and

(C) describe how religion and virtue contributed to the growth of representative government in the American colonies.

(4) History. The student understands significant political and economic issues of the revolutionary era. The student is expected to:

(A) analyze causes of the American Revolution, including the Proclamation of 1763, the Intolerable Acts, the Stamp Act, mercantilism, lack of representation in Parliament, and British economic policies following the French and Indian War;

(B) explain the roles played by significant individuals during the American Revolution, including Abigail Adams, John Adams, Wentworth Cheswell, Samuel Adams, Mercy Otis Warren, James Armistead, Benjamin Franklin, Bernardo de Gálvez, Crispus Attucks, King George III, Haym Salomon, Patrick Henry, Thomas Jefferson, the Marquis de Lafayette, Thomas Paine, and George Washington;

(C) explain the issues surrounding important events of the American Revolution, including declaring independence; writing the Articles of Confederation; fighting the battles of Lexington, Concord, Saratoga, and Yorktown; enduring the winter at Valley Forge; and signing the Treaty of Paris of 1783;

(D) analyze the issues of the Constitutional Convention of 1787, including the Great Compromise and the Three-Fifths Compromise; and

(E) analyze the arguments for and against ratification.

(5) History. The student understands the challenges confronted by the government and its leaders in the early years of the republic and the Age of Jackson. The student is expected to:

(A) describe major domestic problems faced by the leaders of the new republic such as maintaining national security, building a military, creating a stable economic system, setting up the court system, and defining the authority of the central government;

(B) summarize arguments regarding protective tariffs, taxation, and the banking system;

(C) explain the origin and development of American political parties;

(D) explain the causes, important events, and effects of the War of 1812;

(E) identify the foreign policies of presidents Washington through Monroe and explain the impact of Washington's Farewell Address and the Monroe Doctrine;

(F) explain the impact of the election of Andrew Jackson, including expanded suffrage; and

(G) analyze the reasons for the removal and resettlement of Cherokee Indians during the Jacksonian era, including the Indian Removal Act, Worcester v. Georgia, and the Trail of Tears.

(6) History. The student understands westward expansion and its effects on the political, economic, and social development of the nation. The student is expected to:

(A) explain how the Northwest Ordinance established principles and procedures for orderly expansion of the United States;

(B) explain the political, economic, and social roots of Manifest Destiny;

(C) analyze the relationship between the concept of Manifest Destiny and the westward growth of the nation;

(D) explain the causes and effects of the U.S.-Mexican War and their impact on the United States; and

(E) identify areas that were acquired to form the United States, including the Louisiana Purchase.

(7) History. The student understands how political, economic, and social factors led to the growth of sectionalism and the Civil War. The student is expected to:

(A) analyze the impact of tariff policies on sections of the United States before the Civil War;

(B) compare the effects of political, economic, and social factors on slaves and free blacks;

(C) analyze the impact of slavery on different sections of the United States; and

(D) identify the provisions and compare the effects of congressional conflicts and compromises prior to the Civil War, including the roles of John Quincy Adams, John C. Calhoun, Henry Clay, and Daniel Webster.

(8) History. The student understands individuals, issues, and events of the Civil War. The student is expected to:

(A) explain the roles played by significant individuals during the Civil War, including Jefferson Davis, Ulysses S. Grant, Robert E. Lee, and Abraham Lincoln, and heroes such as congressional Medal of Honor recipients William Carney and Philip Bazaar;

(B) explain the causes of the Civil War, including sectionalism, states' rights, and slavery, and significant events of the Civil War, including the firing on Fort Sumter; the battles of Antietam, Gettysburg, and Vicksburg; the announcement of the Emancipation Proclamation; Lee's surrender at Appomattox Court House; and the assassination of Abraham Lincoln; and

(C) analyze Abraham Lincoln's ideas about liberty, equality, union, and government as contained in his first and second inaugural addresses and the Gettysburg Address and contrast them with the ideas contained in Jefferson Davis's inaugural address.

(9) History. The student understands the effects of Reconstruction on the political, economic, and social life of the nation. The student is expected to:

(A) evaluate legislative reform programs of the Radical Reconstruction Congress and reconstructed state governments;

(B) evaluate the impact of the election of Hiram Rhodes Revels;

(C) explain the economic, political, and social problems during Reconstruction and evaluate their impact on different groups; and

(D) identify the effects of legislative acts such as the Homestead Act, the Dawes Act, and the Morrill Act.

(10) Geography. The student understands the location and characteristics of places and regions of the United States, past and present. The student is expected to:

(A) locate places and regions of importance in the United States during the 17th, 18th, and 19th centuries;

(B) compare places and regions of the United States in terms of physical and human characteristics; and

(C) analyze the effects of physical and human geographic factors on major historical and contemporary events in the United States.

(11) Geography. The student understands the physical characteristics of North America and how humans adapted to and modified the environment through the mid-19th century. The student is expected to:

(A) analyze how physical characteristics of the environment influenced population distribution, settlement patterns, and economic activities in the United States during the 17th, 18th, and 19th centuries;

(B) describe the positive and negative consequences of human modification of the physical environment of the United States; and

(C) describe how different immigrant groups interacted with the environment in the United States during the 17th, 18th, and 19th centuries.

(12) Economics. The student understands why various sections of the United States developed different patterns of economic activity. The student is expected to:

(A) identify economic differences among different regions of the United States;

(B) explain reasons for the development of the plantation system, the transatlantic slave trade, and the spread of slavery;

(C) explain the reasons for the increase in factories and urbanization; and

(D) analyze the causes and effects of economic differences among different regions of the United States at selected times in U.S. history.



(13) Economics. The student understands how various economic forces resulted in the Industrial Revolution in the 19th century. The student is expected to:

- (A) analyze the War of 1812 as a cause of economic changes in the nation; and
- (B) identify the economic factors that brought about rapid industrialization and urbanization.

(14) Economics. The student understands the origins and development of the free enterprise system in the United States. The student is expected to:

- (A) explain why a free enterprise system of economics developed in the new nation, including minimal government intrusion, taxation, and property rights; and
- (B) describe the characteristics and the benefits of the U.S. free enterprise system during the 18th and 19th centuries.

(15) Government. The student understands the American beliefs and principles reflected in the Declaration of Independence, the U.S. Constitution, and other important historic documents. The student is expected to:

- (A) identify the influence of ideas from historic documents, including the Magna Carta, the English Bill of Rights, the Mayflower Compact, the Federalist Papers, and selected Anti-Federalist writings, on the U.S. system of government;
- (B) summarize the strengths and weaknesses of the Articles of Confederation;
- (C) identify colonial grievances listed in the Declaration of Independence and explain how those grievances were addressed in the U.S. Constitution and the Bill of Rights; and
- (D) analyze how the U.S. Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights.

(16) Government. The student understands the process of changing the U.S. Constitution and the impact of amendments on American society. The student is expected to:

- (A) summarize the purposes for and process of amending the U.S. Constitution; and
- (B) describe the impact of 19th-century amendments, including the 13th, 14th, and 15th amendments, on life in the United States.

(17) Government. The student understands the dynamic nature of the powers of the national government and state governments in a federal system. The student is expected to:

- (A) analyze the arguments of the Federalists and Anti-Federalists, including those of Alexander Hamilton, Patrick Henry, James Madison, and George Mason; and
- (B) explain constitutional issues arising over the issue of states' rights, including the Nullification Crisis and the Civil War.

(18) Government. The student understands the impact of landmark Supreme Court cases. The student is expected to:

- (A) identify the origin of judicial review and analyze examples of congressional and presidential responses;
- (B) summarize the issues, decisions, and significance of landmark Supreme Court cases, including *Marbury v. Madison*, *McCulloch v. Maryland*, and *Gibbons v. Ogden*; and
- (C) evaluate the impact of selected landmark Supreme Court decisions, including *Dred Scott v. Sandford*, on life in the United States.

(19) Citizenship. The student understands the rights and responsibilities of citizens of the United States. The student is expected to:

- (A) define and give examples of unalienable rights;
- (B) summarize rights guaranteed in the Bill of Rights;
- (C) explain the importance of personal responsibilities, including accepting responsibility for one's behavior and supporting one's family;
- (D) identify examples of responsible citizenship, including obeying rules and laws, staying informed on public issues, voting, and serving on juries;
- (E) summarize the criteria and explain the process for becoming a naturalized citizen of the United States; and
- (F) explain how the rights and responsibilities of U.S. citizens reflect our national identity.

(20) Citizenship. The student understands the importance of voluntary individual participation in the democratic process. The student is expected to:

(A) explain the role of significant individuals such as Thomas Hooker, Charles de Montesquieu, John Locke, William Blackstone, and William Penn in the development of self-government in colonial America;

(B) evaluate the contributions of the Founding Fathers as models of civic virtue; and

(C) analyze reasons for and the impact of selected examples of civil disobedience in U.S. history such as the Boston Tea Party and Henry David Thoreau's refusal to pay a tax.

(21) Citizenship. The student understands the importance of the expression of different points of view in a constitutional republic. The student is expected to:

(A) identify different points of view of political parties and interest groups on important historical and contemporary issues;

(B) describe the importance of free speech and press in a constitutional republic; and

(C) summarize a historical event in which compromise resulted in a peaceful resolution.

(22) Citizenship. The student understands the importance of effective leadership in a constitutional republic. The student is expected to:

(A) analyze the leadership qualities of elected and appointed leaders of the United States such as George Washington, John Marshall, and Abraham Lincoln; and

(B) describe the contributions of significant political, social, and military leaders of the United States such as Frederick Douglass, John Paul Jones, James Monroe, Stonewall Jackson, Susan B. Anthony, and Elizabeth Cady Stanton.

(23) Culture. The student understands the relationships between and among people from various groups, including racial, ethnic, and religious groups, during the 17th, 18th, and 19th centuries. The student is expected to:

(A) identify selected racial, ethnic, and religious groups that settled in the United States and explain their reasons for immigration;

(B) explain the relationship between urbanization and conflicts resulting from differences in religion, social class, and political beliefs;

(C) identify ways conflicts between people from various racial, ethnic, and religious groups were resolved;

(D) analyze the contributions of people of various racial, ethnic, and religious groups to our national identity; and

(E) identify the political, social, and economic contributions of women to American society.

(24) Culture. The student understands the major reform movements of the 19th century. The student is expected to:

(A) describe the historical development of the abolitionist movement; and

(B) evaluate the impact of reform movements, including educational reform, temperance, the women's rights movement, prison reform, abolition, the labor reform movement, and care of the disabled.

(25) Culture. The student understands the impact of religion on the American way of life. The student is expected to:

(A) trace the development of religious freedom in the United States;

(B) describe religious motivation for immigration and influence on social movements, including the impact of the first and second Great Awakenings; and

(C) analyze the impact of the First Amendment guarantees of religious freedom on the American way of life.

(26) Culture. The student understands the relationship between the arts and the times during which they were created. The student is expected to:

(A) describe developments in art, music, and literature that are unique to American culture such as the Hudson River School artists, John James Audubon, "Battle Hymn of the Republic," transcendentalism, and other cultural activities in the history of the United States;

(B) identify examples of American art, music, and literature that reflect society in different eras; and

(C) analyze the relationship between fine arts and continuity and change in the American way of life.

(27) Science, technology, and society. The student understands the impact of science and technology on the economic development of the United States. The student is expected to:

(A) explain the effects of technological and scientific innovations such as the steamboat, the cotton gin, and interchangeable parts;

(B) analyze the impact of transportation and communication systems on the growth, development, and urbanization of the United States;

(C) analyze how technological innovations changed the way goods were manufactured and marketed, nationally and internationally; and

(D) explain how technological innovations brought about economic growth such as how the factory system contributed to rapid industrialization and the Transcontinental Railroad led to the opening of the west.

(28) Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on daily life in the United States. The student is expected to:

(A) compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history; and

(B) identify examples of how industrialization changed life in the United States.

(29) Social studies skills. The student applies critical-thinking skills to organize and use information acquired through established research methodologies from a variety of valid sources, including electronic technology. The student is expected to:

(A) differentiate between, locate, and use valid primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about the United States;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information from outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

(D) identify points of view from the historical context surrounding an event and the frame of reference which influenced the participants;

(E) support a point of view on a social studies issue or event;

- (F) identify bias in written, oral, and visual material;
- (G) evaluate the validity of a source based on language, corroboration with other sources, and information about the author;
- (H) use appropriate mathematical skills to interpret social studies information such as maps and graphs;
- (I) create thematic maps, graphs, charts, models, and databases representing various aspects of the United States; and
- (J) pose and answer questions about geographic distributions and patterns shown on maps, graphs, charts, models, and databases.

(30) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- (A) use social studies terminology correctly;
- (B) use standard grammar, spelling, sentence structure, punctuation, and proper citation of sources;
- (C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and
- (D) create written, oral, and visual presentations of social studies information.

(31) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

- (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
- (B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.20 adopted to be effective August 23, 2010, 35 TexReg 7232.*

The provisions of §§113.22-113.24 of this subchapter shall be superseded by §§113.18-113.20 of this subchapter beginning with the 2011-2012 school year.

*Source: The provisions of this §113.21 adopted to be effective September 1, 1998, 22 TexReg 7684; amended to be effective August 23, 2010, 35 TexReg 7232.*

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## §113.22. Social Studies, Grade 6.

### (a) Introduction.

(1) In Grade 6, students study people and places of the contemporary world. Societies selected for study are chosen from the following regions of the world: Europe, Russia and the Eurasian republics, North America, Middle America, South America, Southwest Asia-North Africa, Sub-Saharan Africa, South Asia, East Asia, Southeast Asia, Australia, and the Pacific Realm. Students describe the influence of individuals and groups on historical and contemporary events in those societies and identify the locations and geographic characteristics of selected societies. Students identify different ways of organizing economic and governmental systems. The concepts of limited and unlimited government are introduced, and students describe the nature of citizenship in various societies. Students compare institutions common to all societies such as government, education, and religious institutions. Students explain how the level of technology affects the development of the selected societies and identify different points of view about selected events.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as biographies and autobiographies; novels; speeches and letters; and poetry, songs, and artworks is encouraged. Selections may include *Sadako and the Thousand Paper Cranes*. Motivating resources are also available from museums, art galleries, and historical sites.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes. Skills listed in the geography and social studies skills strands in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together.

(4) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code, §28.002(h).

(b) Knowledge and skills.

(1) History. The student understands that historical events influence contemporary events. The student is expected to:

(A) describe characteristics of selected contemporary societies such as Bosnia and Northern Ireland that resulted from historical events or factors such as invasion, conquests, colonization, immigration, and trade; and

(B) analyze the historical background of selected contemporary societies to evaluate relationships between past conflicts and current conditions.

(2) History. The student understands the contributions of individuals and groups from various cultures to selected historical and contemporary societies. The student is expected to:

(A) explain the significance of individuals or groups from selected societies, past and present; and

(B) describe the influence of individual and group achievement on selected historical or contemporary societies.

(3) Geography. The student uses maps, globes, graphs, charts, models, and databases to answer geographic questions. The student is expected to:

(A) create thematic maps, graphs, charts, models, and databases depicting various aspects of world regions and countries such as population, disease, and economic activities;

(B) pose and answer questions about geographic distributions and patterns for selected world regions and countries shown on maps, graphs, charts, models, and databases; and

(C) compare selected world regions and countries using data from maps, graphs, charts, databases, and models.

(4) Geography. The student understands the characteristics and relative locations of major historical and contemporary societies. The student is expected to:

(A) locate major historical and contemporary societies on maps and globes;

(B) identify and explain the geographic factors responsible for patterns of population in places and regions;



(C) explain ways in which human migration influences the character of places and regions; and

(D) identify and explain the geographic factors responsible for the location of economic activities in places and regions.

(5) Geography. The student understands how geographic factors influence the economic development, political relationships, and policies of societies. The student is expected to:

(A) explain factors such as location, physical features, transportation corridors and barriers, and distribution of natural resources that influence the economic development and foreign policies of societies; and

(B) identify geographic factors that influence a society's ability to control territory and that shape the domestic and foreign policies of the society.

(6) Geography. The student understands the impact of physical processes on patterns in the environment. The student is expected to:

(A) describe and explain how physical processes such as erosion, ocean circulation, and earthquakes have resulted in physical patterns on Earth's surface;

(B) describe and explain the physical processes that produce renewable and nonrenewable natural resources such as fossil fuels, fertile soils, and timber; and

(C) analyze the effects of physical processes and the physical environment on humans.

(7) Geography. The student understands the impact of interactions between people and the physical environment on the development of places and regions. The student is expected to:

(A) identify and analyze ways people have adapted to the physical environment in selected places and regions;

(B) identify and analyze ways people have modified the physical environment; and

(C) describe ways in which technology influences human capacity to modify the physical environment.

(8) Economics. The student understands the various ways in which people organize economic systems. The student is expected to:

(A) compare ways in which various societies organize the production and distribution of goods and services;

(B) identify and differentiate among traditional, market, and command economies in selected contemporary societies, including the benefits of the U.S. free enterprise system; and

(C) explain the impact of scarcity on international trade and economic interdependence among societies.

(9) Economics. The student understands the role factors of production play in a society's economy. The student is expected to:

(A) describe ways in which factors of production (natural resources, labor, capital, and entrepreneurs) influence the economies of selected contemporary societies; and

(B) identify problems and issues that may arise when one or more of the factors of production is in relatively short supply.

(10) Economics. The student understands categories of economic activities and the means used to measure a society's economic level. The student is expected to:

(A) define and give examples of primary, secondary, tertiary, and quaternary industries; and

(B) describe and measure levels of economic development using various indicators such as individual purchasing power, life expectancy, and literacy.

(11) Government. The student understands the concepts of limited governments, such as constitutional and democratic governments, and unlimited governments, such as totalitarian and nondemocratic governments. The student is expected to:

(A) describe characteristics of limited and unlimited governments;

(B) identify examples of limited and unlimited governments;

(C) identify reasons for limiting the power of government; and

(D) compare limited and unlimited governments.

(12) Government. The student understands alternative ways of organizing governments. The student is expected to:

- (A) identify alternative ways of organizing governments such as rule by one, few, or many;
- (B) identify examples of governments with rule by one, few, or many;
- (C) identify historical origins of democratic forms of government; and
- (D) compare how governments function in selected world societies such as China, Germany, India, and Russia.

(13) Citizenship. The student understands that the nature of citizenship varies among societies. The student is expected to:

- (A) describe roles and responsibilities of citizens in selected contemporary societies including the United States;
- (B) explain how opportunities for citizens to participate in and influence the political process vary among selected contemporary societies; and
- (C) compare the role of citizens in the United States with the role of citizens from selected democratic and nondemocratic contemporary societies.

(14) Citizenship. The student understands the relationship among individual rights, responsibilities, and freedoms in democratic societies. The student is expected to:

- (A) identify and explain the importance of voluntary civic participation in democratic societies; and
- (B) explain relationships among rights and responsibilities in democratic societies.

(15) Culture. The student understands the similarities and differences within and among cultures in different societies. The student is expected to:

- (A) define the concepts of culture and culture region;
- (B) describe some traits that define cultures;
- (C) analyze the similarities and differences among selected world societies; and
- (D) identify and explain examples of conflict and cooperation between and among cultures within selected societies such as Belgium, Canada, and Rwanda.

(16) Culture. The student understands that certain institutions are basic to all societies, but characteristics of these institutions may vary from one society to another. The student is expected to:

- (A) identify institutions basic to all societies, including government, economic, educational, and religious institutions; and
- (B) compare characteristics of institutions in selected contemporary societies.

(17) Culture. The student understands relationships that exist among world cultures. The student is expected to:

- (A) explain aspects that link or separate cultures and societies;
- (B) explain the impact of political boundaries that cut across culture regions;
- (C) analyze how culture traits spread;
- (D) explain why cultures borrow from each other;
- (E) evaluate how cultural borrowing affects world cultures; and
- (F) evaluate the consequences of improved communication among cultures.

(18) Culture. The student understands the relationship that exists between artistic, creative, and literary expressions and the societies that produce them. The student is expected to:

- (A) explain the relationships that exist between societies and their architecture, art, music, and literature;
- (B) relate ways in which contemporary expressions of culture have been influenced by the past;
- (C) describe ways in which societal issues influence creative expressions; and
- (D) identify examples of art, music, and literature that have transcended the boundaries of societies and convey universal themes.

(19) Culture. The student understands the relationships among religion, philosophy, and culture. The student is expected to:

- (A) explain the relationship among religious ideas, philosophical ideas, and cultures; and

(B) explain the significance of religious holidays and observances such as Christmas and Easter, Ramadan, and Yom Kippur and Rosh Hashanah in selected contemporary societies.

(20) Science, technology, and society. The student understands the relationships among science and technology and political, economic, and social issues and events. The student is expected to:

(A) give examples of scientific discoveries and technological innovations, including the roles of scientists and inventors, that have transcended the boundaries of societies and have shaped the world;

(B) explain how resources, belief systems, economic factors, and political decisions have affected the use of technology from place to place, culture to culture, and society to society; and

(C) make predictions about future social, economic, and environmental consequences that may result from future scientific discoveries and technological innovations.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology. The student is expected to:

(A) differentiate between, locate, and use primary and secondary sources such as computer software; interviews; biographies; oral, print, and visual material; and artifacts to acquire information about selected world cultures;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information from outlines, reports, databases, and visuals including graphs, charts, timelines, and maps;

(D) identify different points of view about an issue or topic;

(E) identify the elements of frame of reference that influenced participants in an event; and

(F) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- (A) use social studies terminology correctly;
- (B) incorporate main and supporting ideas in verbal and written communication;
- (C) express ideas orally based on research and experiences;
- (D) create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and
- (E) use standard grammar, spelling, sentence structure, and punctuation.

(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

- (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
- (B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.22 adopted to be effective September 1, 1998, 22 TexReg 7684.*

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#### §113.23. Social Studies, Grade 7.

##### (a) Introduction.

(1) In Grade 7, students study the history of Texas from early times to the present. Content is presented with more depth and breadth than in Grade 4. Students examine the full scope of Texas history, including the cultures of Native Americans living in Texas prior to European exploration and the eras of mission-building, colonization, revolution, republic, and statehood. The focus in each era is on key individuals, events, and issues and their impact. Students identify regions of Texas and the distribution of population within and among the regions and explain the factors that caused Texas to change from an agrarian to an urban society. Students describe the structure and functions of municipal, county, and state governments, explain the influence of the U.S. Constitution on the Texas Constitution, and examine the rights and responsibilities of Texas citizens. Students use primary and secondary sources to examine the rich and diverse cultural background of Texas as they identify the different racial and ethnic groups that settled in Texas to build a republic and then a state. Students analyze the impact of scientific

discoveries and technological innovations such as barbed wire and the oil and gas industries on the development of Texas. Students use primary and secondary sources to acquire information about Texas.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as biographies and autobiographies; novels; speeches, letters, and diaries; and poetry, songs, and artworks is encouraged. Selections may include a biography of Barbara Jordan or Lorenzo de Zavala and William B. Travis' letter "To the People of Texas and All Americans in the World." Motivating resources are also available from museums, historical sites, presidential libraries, and local and state preservation societies.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes with the history and geography strands establishing a sense of time and a sense of place. Skills listed in the geography and social studies skills strands in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together.

(4) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code, §28.002(h).

(b) Knowledge and skills.

(1) History. The student understands traditional historical points of reference in Texas history. The student is expected to:

(A) identify the major eras in Texas history and describe their defining characteristics;

(B) apply absolute and relative chronology through the sequencing of significant individuals, events, and time periods; and

(C) explain the significance of the following dates: 1519, 1718, 1821, 1836, 1845, and 1861.

(2) History. The student understands how individuals, events, and issues prior to the Texas Revolution shaped the history of Texas. The student is expected to:

- (A) compare the cultures of Native Americans in Texas prior to European colonization;
- (B) identify important individuals, events, and issues related to European exploration and colonization of Texas, including the establishment of Catholic missions;
- (C) identify the contributions of significant individuals including Moses Austin, Stephen F. Austin, and Juan Seguín during the colonization of Texas;
- (D) identify the impact of the Mexican federal Constitution of 1824 on events in Texas;
- (E) trace the development of events that led to the Texas Revolution, including the Law of April 6, 1830, the Turtle Bayou Resolutions, and the arrest of Stephen F. Austin; and
- (F) contrast Spanish and Anglo purposes for and methods of settlement in Texas.

(3) History. The student understands how individuals, events, and issues related to the Texas Revolution shaped the history of Texas. The student is expected to:

- (A) explain the roles played by significant individuals during the Texas Revolution, including George Childress, Lorenzo de Zavala, James Fannin, Sam Houston, Antonio López de Santa Anna, and William B. Travis; and
- (B) explain the issues surrounding significant events of the Texas Revolution, including the battle of Gonzales, the siege of the Alamo, the convention of 1836, Fannin's surrender at Goliad, and the battle of San Jacinto.

(4) History. The student understands how individuals, events, and issues shaped the history of the Republic of Texas and early Texas statehood. The student is expected to:

- (A) identify individuals, events, and issues during the Republic of Texas and early Texas statehood, including annexation, Sam Houston, Anson Jones, Mirabeau B. Lamar, problems of the Republic of Texas, the Texas Rangers, the Mexican War, and the Treaty of Guadalupe-Hidalgo; and
- (B) analyze the causes of and events leading to Texas statehood.

(5) History. The student understands how events and issues shaped the history of Texas during the Civil War and Reconstruction. The student is expected to:

- (A) explain reasons for the involvement of Texas in the Civil War; and



(B) analyze the political, economic, and social effects of the Civil War and Reconstruction in Texas.

(6) History. The student understands how individuals, events, and issues shaped the history of Texas from Reconstruction through the beginning of the 20th century. The student is expected to:

(A) identify significant individuals, events, and issues from Reconstruction through the beginning of the 20th century, including the factors leading to the expansion of the Texas frontier, the effects of westward expansion on Native Americans, the development of the cattle industry from its Spanish beginnings, the myth and realities of the cowboy way of life, the effects of the growth of railroads, the buffalo soldiers, James Hogg, Cynthia Parker, and Spindletop; and

(B) explain the political, economic, and social impact of the cattle and oil industries and the development of West Texas resulting from the close of the frontier.

(7) History. The student understands how individuals, events, and issues shaped the history of Texas during the 20th century. The student is expected to:

(A) define the impact of "boom and bust" and trace the boom-and-bust cycle of leading Texas industries throughout the 20th century, including farming, oil and gas, cotton, cattle ranching, real estate, and banking;

(B) evaluate the Progressive and other reform movements in Texas in the 19th and 20th centuries;

(C) trace the civil rights and equal rights movements of various groups in Texas in the 20th century and identify key leaders in these movements, including James Farmer, Hector P. García, Oveta Culp Hobby, and Lyndon B. Johnson;

(D) analyze the political, economic, and social impact of major wars, including World War I and World War II, on the history of Texas;

(E) trace the emergence of the two-party system in Texas during the second half of the 20th century.

(8) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to:

(A) create thematic maps, graphs, charts, models, and databases representing various aspects of Texas during the 19th and 20th centuries; and

(B) pose and answer questions about geographic distributions and patterns in Texas during the 19th and 20th centuries.

(9) Geography. The student understands the location and characteristics of places and regions of Texas. The student is expected to:

(A) locate places and regions of importance in Texas during the 19th and 20th centuries;

(B) compare places and regions of Texas in terms of physical and human characteristics; and

(C) analyze the effects of physical and human factors such as climate, weather, landforms, irrigation, transportation, and communication on major events in Texas.

(10) Geography. The student understands the effects of the interaction between humans and the environment in Texas during the 19th and 20th centuries. The student is expected to:

(A) identify ways in which Texans have adapted to and modified the environment and analyze the consequences of the modifications; and

(B) explain ways in which geographic factors have affected the political, economic, and social development of Texas.

(11) Geography. The student understands the characteristics, distribution, and migration of population in Texas in the 19th and 20th centuries. The student is expected to:

(A) analyze why immigrant groups came to Texas and where they settled;

(B) analyze how immigration and migration to Texas in the 19th and 20th centuries have influenced Texas;

(C) analyze the effects of the changing population distribution in Texas during the 20th century; and

(D) describe the structure of the population of Texas using demographic concepts such as growth rate and age distribution.

(12) Economics. The student understands the factors that caused Texas to change from an agrarian to an urban society. The student is expected to:

(A) explain economic factors that led to the urbanization of Texas;

(B) trace the development of major industries that contributed to the urbanization of Texas; and

(C) explain the changes in the types of jobs and occupations that have resulted from the urbanization of Texas.

(13) Economics. The student understands the interdependence of the Texas economy with the United States and the world. The student is expected to:

(A) analyze the impact of national and international markets and events on the production of goods and services in Texas;

(B) analyze the impact of economic phenomena within the free enterprise system such as supply and demand, profit, government regulation, and world competition on the economy of Texas; and

(C) analyze the impact of significant industries in Texas such as oil and gas, aerospace, and medical technology on local, national, and international markets.

(14) Government. The student understands the basic principles reflected in the Texas Constitution. The student is expected to:

(A) identify how the Texas Constitution reflects the principles of limited government, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights; and

(B) identify the influence of ideas from the U.S. Constitution on the Texas Constitution.

(15) Government. The student understands the structure and functions of government created by the Texas Constitution. The student is expected to:

(A) describe the structure and functions of government at municipal, county, and state levels;

(B) identify major sources of revenue for state and local governments; and

(C) describe the structure and governance of Texas public education.

(16) Citizenship. The student understands the rights and responsibilities of Texas citizens. The student is expected to:

(A) summarize the rights guaranteed in the Texas Bill of Rights; and

(B) identify civic responsibilities of Texas citizens.

(17) Citizenship. The student understands the importance of the expression of different points of view in a democratic society. The student is expected to:

- (A) identify different points of view of political parties and interest groups on important Texas issues;
- (B) describe the importance of free speech and press in a democratic society; and
- (C) express and defend a point of view on an issue of historical or contemporary interest in Texas.

(18) Citizenship. The student understands the importance of effective leadership in a democratic society. The student is expected to:

- (A) identify the leadership qualities of elected and appointed leaders of Texas, past and present, including Texans who have been President of the United States; and
- (B) analyze the contributions of Texas leaders such as Henry B. González, Phil Gramm, Barbara Jordan, and Sam Rayburn.

(19) Culture. The student understands the concept of diversity within unity in Texas. The student is expected to:

- (A) explain how the diversity of Texas is reflected in a variety of cultural activities, celebrations, and performances;
- (B) describe how people from selected racial, ethnic, and religious groups attempt to maintain their cultural heritage while adapting to the larger Texas culture; and
- (C) identify examples of Spanish influence on place names such as Amarillo and Río Grande and on vocabulary in Texas, including words that originated from the Spanish cattle industry.

(20) Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on the political, economic, and social development of Texas. The student is expected to:

- (A) compare types and uses of technology, past and present;
- (B) identify Texas leaders in science and technology such as Roy Bedichek, Walter Cunningham, Michael DeBakey, and C.M. "Dad" Joiner;

(C) analyze the effects of scientific discoveries and technological innovations, such as barbed wire, the windmill, and oil, gas, and aerospace industries, on the developments of Texas;

(D) evaluate the effects of scientific discoveries and technological innovations on the use of resources such as fossil fuels, water, and land;

(E) analyze how scientific discoveries and technological innovations have resulted in an interdependence among Texas, the United States, and the world; and

(F) make predictions about economic, social, and environmental consequences that may result from future scientific discoveries and technological innovations.

(21) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology. The student is expected to:

(A) differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about Texas;

(B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

(C) organize and interpret information from outlines, reports, databases, and visuals including graphs, charts, timelines, and maps;

(D) identify points of view from the historical context surrounding an event and the frame of reference that influenced the participants;

(E) support a point of view on a social studies issue or event;

(F) identify bias in written, oral, and visual material;

(G) evaluate the validity of a source based on language, corroboration with other sources, and information about the author; and

(H) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- (A) use social studies terminology correctly;
- (B) use standard grammar, spelling, sentence structure, and punctuation;
- (C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and
- (D) create written, oral, and visual presentations of social studies information.

(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

- (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
- (B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.23 adopted to be effective September 1, 1998, 22 TexReg 7684.*

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#### §113.24. Social Studies, Grade 8.

##### (a) Introduction.

(1) In Grade 8, students study the history of the United States from the early colonial period through Reconstruction. The knowledge and skills in subsection (b) of this section comprise the first part of a two-year study of U.S. history. The second part, comprising U.S. history since Reconstruction to the present, is provided in §113.32 of this title (relating to United States History Studies Since Reconstruction (One Credit)). The content builds upon that from Grade 5 but provides more depth and breadth. Historical content focuses on the political, economic, and social events and issues related to the colonial and revolutionary eras, the creation and ratification of the U.S. Constitution, challenges of the early Republic, westward expansion, sectionalism, Civil War, and Reconstruction. Students describe the physical characteristics of the United States and their impact on population distribution and settlement patterns in the past and present. Students analyze the various economic factors that influenced the development of colonial America and the early years of the Republic and identify the origins of the free enterprise system. Students examine the American beliefs and principles, including limited government, checks and balances, federalism, separation of powers, and

individual rights, reflected in the U.S. Constitution and other historical documents. Students evaluate the impact of Supreme Court cases and major reform movements of the 19th century and examine the rights and responsibilities of citizens of the United States as well as the importance of effective leadership in a democratic society. Students evaluate the impact of scientific discoveries and technological innovations on the development of the United States. Students use critical-thinking skills, including the identification of bias in written, oral, and visual material.

(2) To support the teaching of the essential knowledge and skills, the use of a variety of rich primary and secondary source material such as the complete text of the U.S. Constitution and the Declaration of Independence; landmark cases of the U.S. Supreme Court; biographies and autobiographies; novels; speeches, letters, and diaries; and poetry, songs, and artworks is encouraged. Selections may include excerpts from the letters of John and Abigail Adams, an excerpt from the Seneca Falls Declaration of Sentiments and Resolutions, and poems of the Civil War era. Motivating resources are also available from museums, historical sites, presidential libraries, and local and state preservation societies.

(3) The eight strands of the essential knowledge and skills for social studies are intended to be integrated for instructional purposes with the history and geography strands establishing a sense of time and a sense of place. Skills listed in the geography and social studies skills strands in subsection (b) of this section should be incorporated into the teaching of all essential knowledge and skills for social studies. A greater depth of understanding of complex content material can be attained when integrated social studies content from the various disciplines and critical-thinking skills are taught together.

(4) Throughout social studies in Kindergarten-Grade 12, students build a foundation in history; geography; economics; government; citizenship; culture; science, technology, and society; and social studies skills. The content, as appropriate for the grade level or course, enables students to understand the importance of patriotism, function in a free enterprise society, and appreciate the basic democratic values of our state and nation as referenced in the Texas Education Code, §28.002(h).

(b) Knowledge and skills.

(1) History. The student understands traditional historical points of reference in U.S. history through 1877. The student is expected to:

(A) identify the major eras in U.S. history through 1877 and describe their defining characteristics;

(B) apply absolute and relative chronology through the sequencing of significant individuals, events, and time periods; and

(C) explain the significance of the following dates: 1607, 1776, 1787, 1803, and 1861-1865.

(2) History. The student understands the causes of exploration and colonization eras. The student is expected to:

(A) identify reasons for European exploration and colonization of North America; and

(B) compare political, economic, and social reasons for establishment of the 13 colonies.

(3) History. The student understands the foundations of representative government in the United States. The student is expected to:

(A) explain the reasons for the growth of representative government and institutions during the colonial period;

(B) evaluate the importance of the Mayflower Compact, the Fundamental Orders of Connecticut, and the Virginia House of Burgesses to the growth of representative government; and

(C) describe how religion contributed to the growth of representative government in the American colonies.

(4) History. The student understands significant political and economic issues of the revolutionary era. The student is expected to:

(A) analyze causes of the American Revolution, including mercantilism and British economic policies following the French and Indian War;

(B) explain the roles played by significant individuals during the American Revolution, including Samuel Adams, Benjamin Franklin, King George III, Thomas Jefferson, the Marquis de Lafayette, Thomas Paine, and George Washington;

(C) explain the issues surrounding important events of the American Revolution, including declaring independence; writing the Articles of Confederation; fighting the battles of Lexington, Concord, Saratoga, and Yorktown; and signing the Treaty of Paris; and

(D) analyze the issues of the Philadelphia Convention of 1787, including major compromises and arguments for and against ratification.



(5) History. The student understands the challenges confronted by the government and its leaders in the early years of the Republic. The student is expected to:

- (A) describe major domestic problems faced by the leaders of the new Republic such as maintaining national security, creating a stable economic system, setting up the court system, and defining the authority of the central government;
- (B) summarize arguments regarding protective tariffs, taxation, and the banking system;
- (C) explain the origin and development of American political parties;
- (D) explain the causes of and issues surrounding important events of the War of 1812;
- (E) trace the foreign policies of Presidents Washington through Monroe and explain the impact of Washington's Farewell Address and the Monroe Doctrine;
- (F) explain the impact of the election of Andrew Jackson, including the beginning of the modern Democratic Party; and
- (G) analyze federal and state Indian policies and the removal and resettlement of Cherokee Indians during the Jacksonian era.

(6) History. The student understands westward expansion and its effects on the political, economic, and social development of the nation. The student is expected to:

- (A) explain how the Northwest Ordinance established principles and procedures for orderly expansion of the United States;
- (B) explain the political, economic, and social roots of Manifest Destiny;
- (C) analyze the relationship between the concept of Manifest Destiny and the westward growth of the nation;
- (D) explain the major issues and events of the Mexican War and their impact on the United States; and
- (E) identify areas that were acquired to form the United States.

(7) History. The student understands how political, economic, and social factors led to the growth of sectionalism and the Civil War. The student is expected to:

- (A) analyze the impact of tariff policies on sections of the United States before the Civil War;

(B) compare the effects of political, economic, and social factors on slaves and free blacks;

(C) analyze the impact of slavery on different sections of the United States; and

(D) compare the provisions and effects of congressional conflicts and compromises prior to the Civil War, including the roles of John C. Calhoun, Henry Clay, and Daniel Webster.

(8) History. The student understands individuals, issues, and events of the Civil War. The student is expected to:

(A) explain the roles played by significant individuals during the Civil War, including Jefferson Davis, Ulysses S. Grant, Robert E. Lee, and Abraham Lincoln;

(B) explain the issues surrounding significant events of the Civil War, including the firing on Fort Sumter, the battles of Gettysburg and Vicksburg, the announcement of the Emancipation Proclamation, the assassination of Lincoln, and Lee's surrender at Appomattox Court House; and

(C) analyze Abraham Lincoln's ideas about liberty, equality, union, and government as contained in his first and second inaugural addresses and the Gettysburg Address.

(9) History. The student understands the effects of Reconstruction on the political, economic, and social life of the nation. The student is expected to:

(A) evaluate legislative reform programs of the Radical Reconstruction Congress and reconstructed state governments;

(B) describe the economic difficulties faced by the United States during Reconstruction; and

(C) explain the social problems that faced the South during Reconstruction and evaluate their impact on different groups.

(10) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to:

(A) create thematic maps, graphs, charts, models, and databases representing various aspects of the United States; and

(B) pose and answer questions about geographic distributions and patterns shown on maps, graphs, charts, models, and databases.

(11) Geography. The student understands the location and characteristics of places and regions of the United States, past and present. The student is expected to:

- (A) locate places and regions of importance in the United States during the 18th and 19th centuries;
- (B) compare places and regions of the United States in terms of physical and human characteristics; and
- (C) analyze the effects of physical and human geographic factors on major historical and contemporary events in the United States.

(12) Geography. The student understands the physical characteristics of the United States during the 18th and 19th centuries and how humans adapted to and modified the environment. The student is expected to:

- (A) analyze how physical characteristics of the environment influenced population distribution, settlement patterns, and economic activities in the United States during the 18th and 19th centuries;
- (B) describe the consequences of human modification of the physical environment of the United States; and
- (C) describe how different immigrant groups interacted with the environment in the United States during the 18th and 19th centuries.

(13) Economics. The student understands why various sections of the United States developed different patterns of economic activity. The student is expected to:

- (A) identify economic differences among different regions of the United States;
- (B) explain reasons for the development of the plantation system, the growth of the slave trade, and the spread of slavery; and
- (C) analyze the causes and effects of economic differences among different regions of the United States at selected times in U.S. history.

(14) Economics. The student understands how various economic forces resulted in the Industrial Revolution in the 19th century. The student is expected to:

- (A) analyze the War of 1812 as a cause of economic changes in the nation; and
- (B) identify the economic factors that brought about rapid industrialization and urbanization.

(15) Economics. The student understands the origins and development of the free enterprise system in the United States. The student is expected to:

(A) explain why a free enterprise system of economics developed in the new nation; and

(B) describe the characteristics and the benefits of the U.S. free enterprise system during the 18th and 19th centuries.

(16) Government. The student understands the American beliefs and principles reflected in the U.S. Constitution and other important historic documents. The student is expected to:

(A) identify the influence of ideas from historic documents including the Magna Carta, the English Bill of Rights, the Mayflower Compact, the Declaration of Independence, the Federalist Papers, and selected anti-federalist writings on the U.S. system of government;

(B) summarize the strengths and weaknesses of the Articles of Confederation;

(C) identify colonial grievances listed in the Declaration of Independence and explain how those grievances were addressed in the U.S. Constitution and the Bill of Rights; and

(D) analyze how the U.S. Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights.

(17) Government. The student understands the process of changing the U.S. Constitution and the impact of amendments on American society. The student is expected to:

(A) summarize the purposes for and processes of changing the U.S. Constitution;

(B) describe the impact of 19th-century amendments including the 13th, 14th, and 15th amendments on life in the United States; and

(C) identify the origin of judicial review and analyze examples of congressional and presidential responses.

(18) Government. The student understands the dynamic nature of the powers of the national government and state governments in a federal system. The student is expected to:

(A) analyze the arguments of the Federalists and Anti-Federalists, including those of Alexander Hamilton, Patrick Henry, James Madison, and George Mason; and

(B) describe historical conflicts arising over the issue of states' rights, including the Nullification Crisis and the Civil War.

(19) Government. The student understands the impact of landmark Supreme Court cases. The student is expected to:

(A) summarize the issues, decisions, and significance of landmark Supreme Court cases including *Marbury v. Madison*, *McCulloch v. Maryland*, and *Gibbons v. Ogden*; and

(B) evaluate the impact of selected landmark Supreme Court decisions including *Dred Scott v. Sandford* on life in the United States.

(20) Citizenship. The student understands the rights and responsibilities of citizens of the United States. The student is expected to:

(A) define and give examples of unalienable rights;

(B) summarize rights guaranteed in the Bill of Rights;

(C) explain the importance of personal responsibilities such as accepting responsibility for one's behavior and supporting one's family;

(D) identify examples of responsible citizenship, including obeying rules and laws, voting, and serving on juries;

(E) summarize the criteria and explain the process for becoming a naturalized citizen of the United States; and

(F) explain how the rights and responsibilities of U.S. citizens reflect our national identity.

(21) Citizenship. The student understands the importance of voluntary individual participation in the democratic process. The student is expected to:

(A) explain the role of significant individuals such as William Penn in the development of self-government in colonial America;

(B) evaluate the contributions of the Founding Fathers as models of civic virtue; and

(C) identify reasons for and the impact of selected examples of civil disobedience in U.S. history such as Henry David Thoreau's refusal to pay a tax.

(22) Citizenship. The student understands the importance of the expression of different points of view in a democratic society. The student is expected to:

- (A) identify different points of view of political parties and interest groups on important historical and contemporary issues;
- (B) describe the importance of free speech and press in a democratic society; and
- (C) summarize a historical event in which compromise resulted in a peaceful resolution.

(23) Citizenship. The student understands the importance of effective leadership in a democratic society. The student is expected to:

- (A) analyze the leadership qualities of elected and appointed leaders of the United States such as Abraham Lincoln, John Marshall, and George Washington; and
- (B) describe the contributions of significant political, social, and military leaders of the United States such as Frederick Douglass, John Paul Jones, James Monroe, and Elizabeth Cady Stanton.

(24) Culture. The student understands the relationships between and among people from various groups, including racial, ethnic, and religious groups, during the 17th, 18th, and 19th centuries. The student is expected to:

- (A) identify selected racial, ethnic, and religious groups that settled in the United States and their reasons for immigration;
- (B) explain the relationship between urbanization and conflicts resulting from differences in religion, social class, and political beliefs;
- (C) identify ways conflicts between people from various racial, ethnic, and religious groups were resolved;
- (D) analyze the contributions of people of various racial, ethnic, and religious groups to our national identity; and
- (E) identify the political, social, and economic contributions of women to American society.

(25) Culture. The student understands the major reform movements of the 19th century. The student is expected to:

- (A) describe the historical development of the abolitionist movement; and

(B) evaluate the impact of reform movements including public education, temperance, women's rights, prison reform, and care of the disabled.

(26) Culture. The student understands the impact of religion on the American way of life. The student is expected to:

(A) trace the development of religious freedom in the United States;

(B) describe religious influences on immigration and on social movements, including the impact of the first and second Great Awakenings; and

(C) analyze the impact of the first amendment guarantees of religious freedom on the American way of life.

(27) Culture. The student understands the relationship between the arts and the times during which they were created. The student is expected to:

(A) describe developments in art, music, literature, drama, and other cultural activities in the history of the United States;

(B) analyze the relationship between fine arts and continuity and change in the American way of life; and

(C) identify examples of American art, music, and literature that transcend American culture and convey universal themes.

(28) Science, technology, and society. The student understands the impact of science and technology on the economic development of the United States. The student is expected to:

(A) explain the effects of technological and scientific innovations such as the steamboat, the cotton gin, and the Bessemer steel process;

(B) analyze the impact of transportation systems on the growth, development, and urbanization of the United States;

(C) analyze how technological innovations changed the way goods were manufactured and marketed, nationally and internationally; and

(D) explain how technological innovations led to rapid industrialization.

(29) Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on daily life in the United States. The student is expected to:

- (A) compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history;
- (B) describe how scientific ideas influenced technological developments during different periods in U.S. history; and
- (C) identify examples of how industrialization changed life in the United States.

(30) Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology. The student is expected to:

- (A) differentiate between, locate, and use primary and secondary sources such as computer software, databases, media and news services, biographies, interviews, and artifacts to acquire information about the United States;
- (B) analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
- (C) organize and interpret information from outlines, reports, databases, and visuals including graphs, charts, timelines, and maps;
- (D) identify points of view from the historical context surrounding an event and the frame of reference which influenced the participants;
- (E) support a point of view on a social studies issue or event;
- (F) identify bias in written, oral, and visual material;
- (G) evaluate the validity of a source based on language, corroboration with other sources, and information about the author; and
- (H) use appropriate mathematical skills to interpret social studies information such as maps and graphs.

(31) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- (A) use social studies terminology correctly;
- (B) use standard grammar, spelling, sentence structure, and punctuation;
- (C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and



(D) create written, oral, and visual presentations of social studies information.

(32) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

(A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and

(B) use a decision-making process to identify a situation that requires a decision, gather information, identify options, predict consequences, and take action to implement a decision.

*Source: The provisions of this §113.24 adopted to be effective September 1, 1998, 22 TexReg 7684.*

APPENDIX B  
CURRICULUM ALIGNMENT MAPS

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
6th Grade Visual Art	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate themes from direct observation, personal experience, and traditional events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) express a variety of ideas based on personal experience and direct observations;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) identify in artworks the influence of historical and political events;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) conduct in-progress analyses and critiques of personal artworks; and
	<b>(1) (B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.</b>	<b>(2) (B) describe in detail a variety of practical applications for design ideas; and</b>	<b>(3) (B) compare specific artworks from a variety of cultures; and</b>	<b>(4) (B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.</b>
		<b>(2) (C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.</b>	<b>(3) (C) compare career and avocational opportunities in art.</b>	
6th Grade Science	<b>(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to</b> (A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;		<b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b> (D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.	<b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b> (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;
			<b>(11) Earth and space. The student understands the organization of our solar system and the relationships among the various bodies that comprise it. The student is expected to:</b> (C) describe the history and future of space exploration, including the types of equipment and transportation needed for space travel.	

Map B-1. Sixth grade visual arts and science TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
7th Grade Visual Art	<p><b>(1) Perception. The student develops and organizes ideas from the environment.</b>            (A) illustrate ideas from direct observation, imagination, personal experience, and school and community events; and</p>	<p><b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b>            (A) create artworks based on direct observations, personal experience, and imagination;</p>	<p><b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b>            (A) analyze ways that international, historical, and political issues influence artworks;</p>	<p><b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b>            (A) analyze and compare relationships, such as function and meaning, in personal artworks; and</p>
	<p><b>(1) (B) compare and contrast the use of art elements and principles, using vocabulary accurately.</b></p>	<p><b>(2) (B) incorporate design into artworks for use in everyday life; and</b></p>	<p><b>(3) (B) analyze selected artworks to determine cultural contexts; and</b></p>	<p><b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent.</b></p>
		<p><b>(2) (C) produce drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art, using a variety of art materials and tools in traditional and experimental ways.</b></p>	<p><b>(3) (C) identify career and avocational choices in art.</b></p>	
7th Grade Science	<p><b>(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:</b>            (A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;</p>		<p><b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b>            (D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.</p>	<p><b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b>            (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;</p>
			<p><b>(3) (F) connect Grade 7 science concepts with the history of science and contributions of scientists.</b></p>	

Map B-2. Seventh grade visual arts and science TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
8th Grade Visual Art	<p><b>(1) Perception. The student develops and organizes ideas from the environment.</b>            (A) illustrate ideas from direct observation, imagination, and personal experience and from experiences at school and community events; and</p>	<p><b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b>            (A) create artworks integrating themes found through direct observation, personal experiences, and imagination;</p>	<p><b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b>            (A) analyze ways in which electronic media/technologies have influenced art</p>	<p><b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b>            (A) analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques; and</p>
	<p><b>(1) (B) define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.</b></p>	<p><b>(2) (B) apply design skills to communicate effectively ideas and thoughts in everyday life; and</b></p>	<p><b>(3) (B) identify cultural ideas expressed in artworks relating to social, political, and environmental themes; and</b></p>	<p><b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, intents, and meanings.</b></p>
		<p><b>(2) (C) select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiberart, photography/film making, and electronic media generated art, traditionally and experimentally.</b></p>	<p><b>(3) (C) survey career and avocational opportunities in art.</b></p>	
8th Grade Science	<p><b>(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:</b>            (A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology;</p>		<p><b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b>            (D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content.</p>	<p><b>(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:</b>            (A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student;</p>

Map B-3. Eighth grade visual art and science TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
6th Grade Visual Arts	<p><b>(1) Perception. The student develops and organizes ideas from the environment.</b>            (A) illustrate themes from direct observation, personal experience, and traditional events; and</p>	<p><b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b>            (A) express a variety of ideas based on personal experience and direct observations;</p>	<p><b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b>            (A) identify in artworks the influence of historical and political events;</p>	<p><b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b>            (A) conduct in-progress analyses and critiques of personal artworks; and</p>
	<p><b>(1) (B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.</b></p>	<p><b>(2) (B) describe in detail a variety of practical applications for design ideas; and</b></p>	<p><b>(3) (B) compare specific artworks from a variety of cultures; and</b></p>	<p><b>(4) (B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.</b></p>
		<p><b>(2) (C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.</b></p>	<p><b>(3) (C) compare career and avocational opportunities in art.</b></p>	
6th Grade Mathematics	<p><b>(11) Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;</p>	<p><b>(11) Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and</p>		<p><b>(11) Underlying processes and mathematical tools. The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;</p>

Map B-4. Sixth grade visual arts and mathematics TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
7th Grade Visual Art	<p><b>(1) Perception. The student develops and organizes ideas from the environment.</b>            (A) illustrate ideas from direct observation, imagination, personal experience, and school and community events; and</p>	<p><b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b>            (A) create artworks based on direct observations, personal experience, and imagination;</p>	<p><b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b>            (A) analyze ways that international, historical, and political issues influence artworks;</p>	<p><b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b>            (A) analyze and compare relationships, such as function and meaning, in personal artworks; and</p>
	<p><b>(1) (B) compare and contrast the use of art elements and principles, using vocabulary accurately.</b></p>	<p><b>(2) (B) incorporate design into artworks for use in everyday life; and</b></p>	<p><b>(3) (B) analyze selected artworks to determine cultural contexts; and</b></p>	<p><b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent.</b></p>
		<p><b>(2) (C) produce drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art, using a variety of art materials and tools in traditional and experimental ways.</b></p>	<p><b>(3) (C) identify career and avocational choices in art.</b></p>	
7th Grade Mathematics	<p><b>(13) Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;</p>	<p><b>(8) Geometry and spatial reasoning. The student uses geometry to model and describe the physical world. The student is expected to:</b>            (A) sketch three-dimensional figures when given the top, side, and front views;</p>		<p><b>(13) Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;</p>
		<p><b>(13) Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences,</b>            (C) select or develop an appropriate problem solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and investigations in other disciplines, and activities in and outside of school. The student is expected to</p>		

Map B-5. Seventh grade visual arts and math TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
8th Grade Visual Art	<p><b>(1) Perception. The student develops and organizes ideas from the environment.</b>            (A) illustrate ideas from direct observation, imagination, and personal experience and from experiences at school and community events; and</p>	<p><b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b>            (A) create artworks integrating themes found through direct observation, personal experiences, and imagination;</p>	<p><b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b>            (A) analyze ways in which electronic media/technologies have influenced art</p>	<p><b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b>            (A) analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques; and</p>
	<p><b>(1) (B) define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.</b></p>	<p><b>(2) (B) apply design skills to communicate effectively ideas and thoughts in everyday life; and</b></p>	<p><b>(3) (B) identify cultural ideas expressed in artworks relating to social, political, and environmental themes; and</b></p>	<p><b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, intents, and meanings.</b></p>
		<p><b>(2) (C) select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiberart, photography/film making, and electronic media-generated art, traditionally and experimentally.</b></p>	<p><b>(3) (C) survey career and avocational opportunities in art.</b></p>	
8th Grade Mathematics	<p><b>(14) Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;</p>	<p><b>(14) Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and</p>		<p><b>(14) Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to:</b>            (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;</p>

Map B- 6. Eighth grade visual arts and math TEKS alignment.



	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
6th Grade Visual Art	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate themes from direct observation, personal experience, and traditional events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) express a variety of ideas based on personal experience and direct observations;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) identify in artworks the influence of historical and political events;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) conduct in-progress analyses and critiques of personal artworks; and
	(1) (B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.	(2) (B) describe in detail a variety of practical applications for design ideas; and	(3) (B) compare specific artworks from a variety of cultures; and	(4) (B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.
		(2) (C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.	(3) (C) compare career and avocational opportunities in art.	
6th Grade Language Arts and Reading		<b>(15) Writing/Literary Texts. Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:</b> (A) write imaginative stories that include: (i) a clearly defined focus, plot, and point of view; (ii) a specific, believable setting created through the use of sensory details; and	<b>(3) Reading/Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about the me and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to:</b> (C) compare and contrast the historical and cultural	<b>(28) Listening and Speaking/Teamwork. Students work productively with others in teams. Students will continue to apply earlier standards with greater complexity. Students are expected to participate in student-led discussions by eliciting and considering suggestions from other group members and by identifying points of agreement and</b>
		<b>(15) (B) write poems using:</b> (i) poetic techniques (e.g., alliteration, onomatopoeia); (ii) figurative language (e.g., similes, metaphors); and (iii) graphic elements (e.g., capital letters, line length).	<b>(9) Reading/Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to compare and contrast the stated or implied purposes of different authors writing on the same topic.</b>	<b>(13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue to apply earlier standards with greater depth in increasingly more complex texts. Students are expected to:</b> (A) explain messages conveyed in various forms of media;
		<b>(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences.</b>		(13) (B) recognize how various techniques influence viewers' emotions;
				(13) (C) critique persuasive techniques (e.g., testimonials, bandwagon appeal) used in media messages; and
				(13) (D) analyze various digital media venues for levels of formality and informality

Map B-7. Sixth grade visual arts and English language arts and reading TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
7th Grade Visual Art	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate ideas from direct observation, imagination, personal experience, and school and community events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) create artworks based on direct observations, personal experience, and imagination;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) analyze ways that international, historical, and political issues influence artworks;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) analyze and compare relationships, such as function and meaning, in personal artworks; and
	<b>(1) (B) compare and contrast the use of art elements and principles, using vocabulary accurately.</b>	<b>(2) (B) incorporate design into artworks for use in everyday life; and</b>	<b>(3) (B) analyze selected artworks to determine cultural contexts; and</b>	<b>(4)(B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent.</b>
		<b>(2) (C) produce drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art, using a variety of art materials and tools in traditional and experimental ways.</b>	<b>(3) (C) identify career and avocational choices in art.</b>	
7th Grade Language Arts and Reading		<b>(15) Writing/Literary Texts. Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:</b> (A) write an imaginative story that: (i) sustains reader interest; (ii) includes well-paced action and an engaging story line; (iii) creates a specific, believable setting through the use of sensory details; (iv) develops interesting characters; and (v) uses a range of literary strategies and devices to enhance the style and tone; and	<b>(3) Reading/Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to:</b> (C) analyze how place and time influence the theme or message of a literary work.	<b>(13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue to apply earlier standards with greater depth in increasingly more complex texts. Students are expected to:</b> (A) interpret both explicit and implicit messages in various forms of media;
		<b>(15) (B) write a poem using:</b> (i) poetic techniques (e.g., rhyme scheme, meter); (ii) figurative language (e.g., personification, idioms, hyperbole); and (iii) graphic elements (e.g., word position).	<b>(9) Reading/Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to explain the difference between the theme of a literary work and the author's purpose in an expository text.</b>	<b>(13) (B) interpret how visual and sound techniques (e.g., special effects, camera angles, lighting, music) influence the message;</b>
		<b>(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and communicates the importance of or reasons for actions and/or consequences.</b>		<b>(13) (C) evaluate various ways media influences and informs audiences; and</b>
				<b>(13) (D) assess the correct level of formality and tone for successful participation in various digital media</b>

Map B-8. Seventh grade visual arts and English language arts and reading TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
8th Grade Visual Arts	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate ideas from direct observation, imagination, and personal experience and from experiences at school and community events	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) create artworks integrating themes found through direct observation, personal experiences, and imagination;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) analyze ways in which electronic media/technologies have influenced art	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques; and
	<b>(1) (B) define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.</b>	<b>(2) (B) apply design skills to communicate effectively ideas and thoughts in everyday life; and</b>	<b>(3) (B) identify cultural ideas expressed in artworks relating to social, political, and environmental themes; and</b>	<b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, intents, and meanings.</b>
		<b>(2) (C) select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiberart, photography/film making, and electronic media-generated art, traditionally and experimentally.</b>	<b>(3) (C) survey career and avocational opportunities in art.</b>	
8th Grade Language Arts and Reading		<b>(15) Writing/Literary Texts. Students write literary texts to express their ideas and feelings about real or imagined people, events, and ideas. Students are expected to:</b> (A)write an imaginative story that: (i)sustains reader interest; (ii)includes well-paced action and an engaging story line; (iii)creates a specific, believable setting through the use of sensory details; (iv)develops interesting characters; and (v)uses a range of literary strategies and devices to enhance the style and tone	<b>(3) Comprehension of Literary Text/Theme and Genre. Students analyze, make inferences and draw conclusions about the theme and genre in different cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to:</b> (A) analyze literary works that share similar themes across cultures;	<b>(13) Reading/Media Literacy. Students use comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning. Students will continue to apply earlier standards with greater depth in increasingly more complex texts. Students are expected to:</b> (A) evaluate the role of media in focusing attention on events and informing opinion on issues;
		<b>(15) (B) write a poem using:</b> (i) poetic techniques (e.g., rhyme scheme, meter); (ii) figurative language (e.g., personification, idioms, hyperbole); and (iii) graphic elements (e.g., word position).	<b>(3) (B) compare and contrast the similarities and differences in mythologies from various cultures (e.g., ideas of afterlife, roles and characteristics of deities, purposes of myths); and</b>	<b>(13) (B) interpret how visual and sound techniques (e.g., special effects, camera angles, lighting, music) influence the message;</b>
		<b>(16) Writing. Students write about their own experiences. Students are expected to write a personal narrative that has a clearly defined focus and includes reflections on decisions, actions, and/or consequences.</b>	<b>(3) (C) explain how the values and beliefs of particular characters are affected by the historical and cultural setting of the literary work.</b>	<b>(13) (C) evaluate various techniques used to create a point of view in media and the impact on audience; and</b>
			<b>(9) Comprehension of Informational Text/Culture and History. Students analyze, make inferences and draw conclusions about the author's purpose in cultural, historical, and contemporary contexts and provide evidence from the text to support their understanding. Students are expected to analyze works written on the same topic and compare how the authors achieved similar or different purposes.</b>	<b>(13) (D) assess the correct level of formality and tone for successful participation in various digital media.</b>
				<b>(28) Listening and Speaking/Teamwork. Students work productively with others in teams. Students will continue to apply earlier standards with greater complexity. Students are expected to participate productively in discussions, plan agendas with clear goals and deadlines, set time limits for speakers, take notes, and vote on key issues.</b>

Map B- 9. Eighth grade visual arts and English language arts and reading TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
6th Grade Visual Arts	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate themes from direct observation, personal experience, and traditional events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) express a variety of ideas based on personal experience and direct observations;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) identify in artworks the influence of historical and political events;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) conduct in-progress analyses and critiques of personal artworks; and
	(1) (B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.	(2) (B) describe in detail a variety of practical applications for design ideas; and	(3) (B) compare specific artworks from a variety of cultures; and	(4) (B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.
		(2) (C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.	(3) (C) compare career and avocational opportunities in art.	
6th Grade Social Studies		<b>(22) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:</b> (D) create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and	<b>(1) History. The student understands that historical events influence contemporary events. The student is expected to:</b> (B) analyze the historical background of selected contemporary societies to evaluate relationships between past conflicts and current conditions.	<b>(23) Social studies skills. The student uses problem solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:</b> (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
			<b>(2) History. The student understands the contributions of individuals and groups from various cultures to selected historical and contemporary societies. The student is expected to:</b> (A) explain the significance of individuals or groups from selected societies, past and present; and	
			(2) (B) describe the influence of individual and group achievement on selected historical or contemporary societies.	
			<b>(15) Culture. The student understands the similarities and differences within and among cultures in different societies. The student is expected to:</b> (B) describe some traits that define cultures;	
			(15) (C) analyze the similarities and differences among selected world societies; and	
			<b>(16) Culture. The student understands that certain institutions are basic to all societies, but characteristics of these institutions may vary from one society to another. The student is expected to:</b> (A) identify institutions basic to all societies, including government, economic, educational, and religious institutions;	
			(16) (B) compare characteristics of institutions in selected contemporary societies.	

Map B-10-A. Sixth grade visual arts and social studies TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
6th Grade Visual Arts	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate themes from direct observation, personal experience, and traditional events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) express a variety of ideas based on personal experience and direct observations;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) identify in artworks the influence of historical and political events;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) conduct in-progress analyses and critiques of personal artworks; and
	<b>(1) (B) analyze and form generalizations about the interdependence of the art elements such as color, texture, form, line, space, and value and principles such as emphasis, pattern, rhythm, balance, proportion, and unity, using art vocabulary appropriately.</b>	<b>(2) (B) describe in detail a variety of practical applications for design ideas; and</b>	<b>(3) (B) compare specific artworks from a variety of cultures; and</b>	<b>(4) (B) analyze original artworks, portfolios, and exhibitions of peers to form conclusions about formal properties and historical and cultural contexts.</b>
		<b>(2) (C) demonstrate technical skills effectively, using a variety of art media and materials to produce designs, drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art.</b>	<b>(3) (C) compare career and avocational opportunities in art.</b>	
6th Grade Social Studies			<b>(17) Culture. The student understands relationships that exist among world cultures. The student is expected to:</b> (A) explain aspects that link or separate cultures and societies;	
			<b>(17) (B) explain the impact of political boundaries that cut across culture regions;</b>	
			<b>(17) (C) analyze how culture traits spread;</b>	
			<b>(17) (D) explain why cultures borrow from each other;</b>	
			<b>(17) (E) evaluate how cultural borrowing affects world cultures; and</b>	
			<b>(17) (F) evaluate the consequences of improved communication among cultures.</b>	
			<b>(18) Culture. The student understands the relationship that exists between artistic, creative, and literary expressions and the societies that produce them. The student is expected to:</b> (A) explain the relationships that exist between societies and their architecture, art, music, and literature;	
			<b>(18) (B) relate ways in which contemporary expressions of culture have been influenced by the past;</b>	
		<b>(18) (C) describe ways in which societal issues influence creative expressions; and</b>		
		<b>(18) (D) identify examples of art, music, and literature that have transcended the boundaries of societies and convey universal themes.</b>		

Map B-10-B. Sixth grade visual arts and social studies alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
7th Grade Visual Art	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate ideas from direct observation, imagination, personal experience, and school and community events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) create artworks based on direct observations, personal experience, and imagination;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) analyze ways that international, historical, and political issues influence artworks;	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) analyze and compare relationships, such as function and meaning, in personal artworks; and
	<b>(1) (B) compare and contrast the use of art elements and principles, using vocabulary accurately.</b>	<b>(2) (B) incorporate design into artworks for use in everyday life; and</b>	<b>(3) (B) analyze selected artworks to determine cultural contexts; and</b>	<b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, and intent.</b>
		<b>(2) (C) produce drawings, paintings, prints, sculptures, ceramics, fiberart, photographic imagery, and electronic media-generated art, using a variety of art materials and tools in traditional and experimental ways.</b>	<b>(3) (C) identify career and avocational choices in art.</b>	
7th Grade Social Studies		<b>(22) Social studies skills. The student communicates in written, oral, and visual forms.</b> (C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and	<b>(1) History. The student understands traditional historical points of reference in Texas history.</b> (A-C)	<b>(23) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:</b> (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
		<b>(22) (D) create written, oral, and visual presentations of social studies information.</b>	<b>(2) History. The student understands how individuals, events, and issues prior to the Texas Revolution shaped the history of Texas.</b> (A-F)	
			<b>(3) History. The student understands how individuals, events, and issues related to the Texas Revolution shaped the history of Texas.</b> (A-C)	
			<b>(4) History. The student understands how individuals, events, and issues shaped the history of the Republic of Texas and early Texas statehood. (A),(B)</b>	
			<b>(5) History. The student understands how events and issues shaped the history of Texas during the Civil War and Reconstruction. (A),(B)</b>	
			<b>(6) History. The student understands how individuals, events, and issues shaped the history of Texas from Reconstruction through the beginning of the 20th century. (A),(B)</b>	
			<b>(7) History. The student understands how individuals, events, and issues shaped the history of Texas during the 20th century. (A-E)</b>	
			<b>(19) Culture. The student understands the concept of diversity within unity in Texas.</b> (A) explain how the diversity of Texas is reflected in a variety of cultural activities, celebrations, and performances;	

Map B-11. Seventh grade visual arts and social studies TEKS alignment.

	Perception	Creative Expression	Historical/Cultural Heritage	Response and Evaluation
8th Grade Visual Art	<b>(1) Perception. The student develops and organizes ideas from the environment.</b> (A) illustrate ideas from direct observation, imagination, and personal experience and from experiences at school and community events; and	<b>(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill.</b> (A) create artworks integrating themes found through direct observation, personal experiences, and imagination;	<b>(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement.</b> (A) analyze ways in which electronic media/technologies have influenced art	<b>(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others.</b> (A) analyze with the teacher or peers personal artworks in progress, using critical attributes, and participate in individual and group critiques; and
	<b>(1) (B) define a variety of concepts directly related to the art elements and principles, using vocabulary accurately.</b>	<b>(2) (B) apply design skills to communicate effectively ideas and thoughts in everyday life; and</b>	<b>(3) (B) identify cultural ideas expressed in artworks relating to social, political, and environmental themes; and</b>	<b>(4) (B) analyze original artworks, portfolios, and exhibitions by peers and others to form conclusions about formal properties, historical and cultural contexts, intents, and meanings.</b>
		<b>(2) (C) select appropriate art materials and tools to interpret subjects or themes when producing drawings, paintings, prints, sculptures, ceramics, fiberart, photography/film making, and electronic media-generated art, traditionally and experimentally.</b>	<b>(3) (C) survey career and avocational opportunities in art.</b>	
8th Grade Social Studies		<b>31) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:</b> (C) transfer information from one medium to another, including written to visual and statistical to written or visual, using computer software as appropriate; and	<b>(24) Culture. The student understands the relationships between and among people from various groups, including racial, ethnic, and religious groups, during the 17th, 18th, and 19th centuries.</b> (A-E)	<b>(32) Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:</b> (A) use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
		<b>31) Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:</b> (D) create written, oral, and visual presentations of social studies information.	<b>(25) Culture. The student understands the major reform movements of the 19th century.</b> (A), (B)	
			<b>(26) Culture. The student understands the impact of religion on the American way of life.</b> (A-C)	
			<b>(27) Culture. The student understands the relationship between the arts and the times during which they were created.</b> (A-C)	
			<b>(29) Science, technology, and society. The student understands the impact of scientific discoveries and technological innovations on daily life in the United States. The student is expected to</b> (A) compare the effects of scientific discoveries and technological innovations that have influenced daily life in different periods in U.S. history;	

Map B-12. 8th grade visual arts and social studies TEKS alignment.

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