The Study of Food

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The Study of Food

<table>
<thead>
<tr>
<th>Document Information</th>
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</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
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<td><strong>Prepared By</strong></td>
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<td><strong>Version</strong></td>
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<td><strong>Date of Current Version</strong></td>
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<td><strong>Revised By</strong></td>
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<td><strong>Description</strong></td>
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<td><strong>Rights Information</strong></td>
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<tr>
<td><strong>Licensing Information</strong></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Revision History</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Previous Version</strong></td>
</tr>
<tr>
<td><strong>Changes</strong></td>
</tr>
</tbody>
</table>
The Study of Food

Table of Contents

Introduction ..................................................................................................................................................1
Grade Level ..................................................................................................................................................1
Discipline ....................................................................................................................................................1
TEKS ............................................................................................................................................................1
National Education for Sustainability Learning Standards .................................................................1
Objective .....................................................................................................................................................2
Keywords ....................................................................................................................................................2
Description of Activities .........................................................................................................................2
Activities .....................................................................................................................................................3
Activity 1: Understanding the Local Multiplier Effect ........................................................................3
   Introduction ...........................................................................................................................................3
   Materials ...............................................................................................................................................3
   Products ...............................................................................................................................................3
   Process ....................................................................................................................................................3
Activity 2: Tracing the Origin of Canned Peas .......................................................................................5
   Introduction ...........................................................................................................................................5
   Materials ...............................................................................................................................................5
   Products ...............................................................................................................................................5
   Process ....................................................................................................................................................5
Activity 3: Group Research of a Food Product .......................................................................................6
   Introduction ...........................................................................................................................................6
   Materials ...............................................................................................................................................6
   Products ...............................................................................................................................................6
   Process ....................................................................................................................................................6
Activity 4: Cheeseburger Activity ...........................................................................................................7
   Introduction ...........................................................................................................................................7
   Materials ...............................................................................................................................................7
   Products ...............................................................................................................................................7
   Process ....................................................................................................................................................7
Activity 5: How Food Habits Affect Ecological Footprints .....................................................................8
   Introduction ...........................................................................................................................................8
   Materials ...............................................................................................................................................8
   Products ...............................................................................................................................................8
   Process ....................................................................................................................................................8
Additional Resources .................................................................................................................................9
Online Resources .......................................................................................................................................9
Educational Literature .............................................................................................................................9
Educational Videos ....................................................................................................................................9

Handouts
   “Where Your Dollars Go”
   “The Local Multiplier Effect”
   “Lens tri-Venn”

The Study of Food

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Introduction

Grade Level

These activities are intended for a sixth grade classroom.

Discipline

These activities have a science and social studies focus.

TEKS

Content:
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. TEKS §112.18. Science, Grade 6. (a)(4)(A)(i)

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. TEKS §113.18. Social Studies, Grade 6. (a)(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 (TEC), §28.002(h). TEKS §113.18. Social Studies, Grade 6. (a)(5)

Skills:

The student understands categories of economic activities and the data used to measure a society’s economic level. TEKS §113.18. Social Studies, Grade 6. (b)(10)(A)

National Education for Sustainability K-12 Student Learning Standards

2.1 ~ Interconnectedness ~ Interdependency
2.3 ~ Economic Systems ~ Food Systems
3.1 ~ Personal Action ~ Project Planning
3.2 ~ Collective Action ~ Designing a Sustainable System

The Study of Food
Objective

Students will learn the benefits of buying locally grown foods. By tracing the path their food took to get to their plate, students will learn how buying non-local food can impact their community economically, socially, and environmentally.

Key Words

Local products
Non-local products
Big Box Stores
Local Multiplier Effect
Ecological Footprint
Production Cycle
Sustainable System

Description of Activities

The following activities have been compiled to address the topic of “Studying Food” in sixth grade classrooms. The activities meet the state and national education standards for sixth grade, and are intended to supplement pre-existing curricula, with a focus on integrating sustainability topics. The activities can be used in conjunction or alone.
Activities

Activity 1: Understanding the Local Multiplier Effect

Introduction

In this activity, students will learn about the local multiplier effect, and through an interactive website, handouts, and class discussion, will learn that money spent on local products is money that stays in and benefits that community.

Materials

Computers
Handouts

Products

Questions from Website
Skits/Plays

Process

1. Introduce the lesson by asking students what “local” means, and discussing their answers. Then, ask students what it would mean to “buy locally”. Discuss their responses and explain to them that goods they purchase in their community could have been manufactured anywhere. Briefly discuss the idea that money spent within a community will stay in that community.

2. Tell students that you will explore a website that will give them more information about the economic systems at work when we purchase goods. Have students navigate to: http://www.shoplocally.com/why/# and explore the page as they answer the following questions:

   - Retell the story of Lisa, John, Peter, and Susan.
   - Retell the story of Susan’s trip to the Big Box Store.
   - Which of these stories will help Susan’s local community more? Why?
   - What reasons does the website give to “shop locally”?
   - What is the “local multiplier effect”?
   - In your opinion, what are some good reasons to shop locally?
   - In your opinion, what are some good reasons to shop at Big Box Stores?
   - In your opinion, is it better to shop locally? Why or why not?

3. Review students’ responses to the previous questions. Talk with students about the benefits and drawbacks of buying at locally owned businesses versus non-locally owned businesses.

4. Give out the handout (p. 9) “Where Your Dollars Go” and “The Local Multiplier Effect” (p.10), and use the handouts to illustrate that the more money people spend in their community, the more money that will stay in the community (and benefit them).
5. If desired, students can create skits/plays to demonstrate the local multiplier effect.

Activity 2: Tracing the Origin of Canned Peas

Introduction

Students will learn how food is produced, and will be able to identify all of the steps in the production cycle. Using the handout, they will analyze the social, ecological, and economic impact of producing a can of peas.

Materials

Handout

Products

Lens tri-Venn

Process

1. Take out a can of peas and show it to students. Explain that it came out of your cupboard this morning.

2. Ask students: How did it get there? Encourage students respond and share their ideas.

3. When students correctly identify a step in the process (planting, growing, harvesting, preparing, processing, canning, labeling, transporting, grocery store, and processing), write that step on your whiteboard. As students continue to contribute correct steps, add that step to the board, making sure to put the steps in the correct order.

4. After tracing the product cycle the can of peas, ask the students what will happen to the product next. What will be leftover as waste? What will happen to the waste?

5. Using the Lens tri-Venn (p. 11), ask students to consider how the can of peas looks through ecological, economic, and social lenses. The discussion can be done as a class, but students should fill out their own Venn Diagrams.

Activity 3: Group Research of a Food Product

Introduction

Students will research the steps in the production cycle for the food assigned to their group. They will present this information to the class, and then discuss why it is important to know this information, and how this topic relates to sustainability.

Materials

Computers
Household Food Items
Paper/Markers for Flow Charts

Products

Flow Chart

Process

1. Tell students they will trace the origins of a food product in small groups. Put students in groups of 4-5.

2. Circulate with a bag full of everyday objects and each group will pick one thing out of the bag to trace the process to production chain. If a product contains more than one ingredient, have students trace the production cycle of the first ingredient.

3. Students will brainstorm the process, research their food/ingredients on the internet, and check in with teachers about their ideas.

4. Once students have identified the steps for their food, they will create group flow charts explaining this process and present them to the class.

5. Gather the students for a closing discussion and ask:
   - Are all products produced the same way?
   - Are there more steps in certain products processes? (Students should be able to see that some products are heavily processed and others are relatively simple.)
   - How does it relate to sustainability?
   - Why should we as consumers be interested in this process?

Activity 4: Cheeseburger Activity

Introduction

Students will research the steps in the production cycle for their assigned cheeseburger ingredient. They will discuss the impacts of the steps taken to produce their ingredient and will brainstorm ideas to reduce the impact of these processes. Students will present their findings and ideas.

Materials

Computers
Cheeseburger Ingredients (enough for one burger to demonstrate; enough for whole class if everyone is eating)
Paper/Markers for Flow Charts

Products

Presentation (Slideshow, Poster, etc.)

Process

1. Ask students to identify the component parts of a cheeseburger. Easy, right? A bun, a beef patty, and cheese. Then guide students as to trace each part back to where it came from and describe what was involved in producing it and getting it to their table. For example, of course a beef patty comes from a cow, but there are many steps in between the cow and the burger “the grass and grain used for feed, the water needed to produce that feed, the fertilizers and pesticides used on the grazing land, the slaughterhouse, the transportation of the beef to a restaurant, the energy to heat the stove to cook the burger, and so on.

2. Break students into groups and have each group research one ingredient and create a visual representation of the processes included in the production of their ingredient. Students are asked to think about impacts, both positive and negative, of each of the processes, products, and technologies while conducting the research. Impacts of each process and ideas on how to modify the process to reduce the impact should be included in the presentation.

3. If the teacher feels it is appropriate, students can eat cheeseburgers.

Activity 5: Group Research of a Food Product

Introduction

Students will brainstorm creative ways to reduce their ecological footprint by altering their food consumption habits.

Materials

Computers
Paper/Markers for Posters

Products

Poster
Essay

Process

1. After completing at least one of the previous activities, students should brainstorm creative ways to reduce their ecological footprint related to their favorite food. They can come up with all kinds of ideas including using organic ingredients, eating smaller portions, educating themselves and others about the negative impacts of traditional food production, and making their own food instead of eating at restaurants. Through this exercise, students are unpacking their connections to the food on their plate and finding tangible ways that they can make both small and large impacts on economic, social, and environmental issues.

2. They will then design and present a poster containing innovative ideas for actions they can take to reduce their footprint related to food consumption. Encourage students to think broader than “shopping at a farmer’s market”, and ask them to come up with idea that were not used as examples.

3. They should present their idea and be able to explain briefly that action would help reduce their ecological footprint.

4. Students should write a reflective essay detailing what they have learned about how the food they eat and the processes it goes through to get to them can impact the environment and their community. They should list ways they learned to decrease their ecological footprint with regards to food, and should be able to explain how changing their food consumption behaviors in these ways would reduce their ecological footprint.
Additional Resources

Online Resources

Primary Source
http://www.sustainableschoolsproject.org/curricula/sustainable-economics-triple-bottom-line

Reference Resources
http://www.shoplocally.com/why/

Educational Literature


Educational Videos

“How It’s Made”
WHERE YOUR DOLLARS GO

GREEN = Money Staying in Your Community
RED = Money Leaving Your Community

For every $100 spent locally, $68 stays in the local economy.

For every $100 spent non-locally, $32 stays in the local economy.

For every $100 spent non-locally, $17 leaves the local economy.

The Local Multiplier Effect
KEEP YOUR MONEY IN THE COMMUNITY

Buying local products at locally owned businesses keeps money circulating closer to where you live. This creates a ripple effect as those businesses and their employees in turn spend their money locally. Unfortunately, most corporate chains send most of your money out of town.

For every $1 spent at a local business...

45 cents is reinvested locally

For every $1 spent at a corporate chain...

Only 15 cents is reinvested locally

MAKE YOUR MONEY WORK HARDER

If everyone in a community spends a greater percentage locally, the multiplier effect turns that into big bucks for the local economy. If you increase your spending with local businesses from 50% to 80% for example, the multiplier effect more than doubles those dollars. Therefore, $200 spent locally could have close to $500 in impact on the community.

Increasing percentages of $100 spent locally

The local effect of that spending

[$200, $300, $400, $500, $600, $700, $800, $900]

$ Shopper

Owners + Employees

Local Business

Local Service Providers

EXCEL is a division of the Sustainable Communities Initiative