Connection to Nature

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A collection of activities and resources regarding the study of food that meet state education standards and national sustainability standards for the second grade level.
Introduction .................................................................................................................. 1
Grade Level .................................................................................................................... 1
Discipline ....................................................................................................................... 1
TEKS .............................................................................................................................. 1
National Education for Sustainability Learning Standards ........................................... 2
Objective ..................................................................................................................... 2
Keywords ..................................................................................................................... 2
Description of Activities ............................................................................................. 2
Activities ....................................................................................................................... 3
Activity 1: Animal Charades ......................................................................................... 3
  Introduction.................................................................................................................. 3
  Materials ...................................................................................................................... 3
  Products ....................................................................................................................... 3
  Process ......................................................................................................................... 3
Activity 2: Habitat Lap Sit ............................................................................................. 5
  Introduction.................................................................................................................. 5
  Materials ...................................................................................................................... 5
  Products ....................................................................................................................... 5
  Process ......................................................................................................................... 5
Additional Resources .................................................................................................. 7
Online Resources .......................................................................................................... 7
Educational Literature .................................................................................................. 7
Educational Videos ....................................................................................................... 7
Instructional Games ...................................................................................................... 7
Handouts
  “Habitat Riddles” by Earth Child
  “Animal Charade Cut-outs”
**Introduction**

**Grade Level**

These activities are intended for a second grade classroom.

**Discipline**

These activities have a science focus.

**TEKS**

**Content:**

The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major concepts and vocabulary, in the context of physical, earth, and life sciences. Districts are encouraged to facilitate classroom and outdoor investigations for at least 60% of instructional time. TEKS §112.13. Science, Grade 2. (a)(3)

In Grade 2, careful observation and investigation are used to learn about the natural world and reveal patterns, changes, and cycles. Students should understand that certain types of questions can be answered by using observation and investigations and that the information gathered in here may change as new observations are made. As students participate in investigation, they develop the skills necessary to do science as well as develop new science concepts. TEKS §112.13. Science, Grade 2. (a)(4)(B).

**Skills:**

The student conducts classroom and outdoor investigations following home and school safety procedures. TEKS §112.13. Science, Grade 2. (b)(1)(A)(C)


Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. TEKS §112.13. Science, Grade 2. (b)(4)(A)(B)

The student knows that matter has physical properties and those properties determine how it is described, classified, changed, and used. TEKS §112.13. Science, Grade 2. (b)(5)(A)(B)(C)(D)

The student knows that the natural world includes earth materials. TEKS §112.13. Science, Grade 2. (b)(7)(A)(B)(C)

The student knows that there are recognizable patterns in the natural world and among objects in the sky. TEKS §112.13. Science, Grade 2. (b)(8)(A)(B)(C)(D)

**Connection to Nature**

[Image: Tree with EXCEL logo]
National Education for Sustainability K-12 Student Learning Standards

2.2 ~ Ecological Systems ~ Connection to Nature

Objective

Students learn that animals and humans share some basic needs. They should learn the interconnectedness of the planet, and how all creatures are dependent on Earth’s natural resources for survival.

Key Words

Habitat
Environment
Wildlife
Erosion
Marsh

Description of Activities

The following activities have been compiled to address the topic of “Connection to Nature” in second grade classrooms. The activities meet the state and national education standards for second 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: Animal Charades

Introduction

In this activity, students will learn about diverse animal habitats through actively engaging in a game of charades. They will learn that humans are a part of the animal kingdom and are not separate but an integral component of the natural world.

Materials

An open space (in classroom or outdoors)
Handouts- Animal Charade Cards
Handout- “Habitat Riddles”

Products

Understanding of Habitats
Discussion

Process

1. Print and cut out the Animal Charade Card Handouts.

2. Explain to students the basics rules and on how to play charades.

3. Create teams and have students play charades using the cutouts.

4. As each animal is acted out, list the animals on the board and have the students identify where the particular animal lives (forest, jungle, house, farm etc.).

5. Optional: “What’s that, habitat?”
   Identify humans as animals too, if not previously acted out as part of the introduction. Where do humans live? Talk about the idea that everybody needs a home, but that home is not just a ‘house’ such as people live in. An animal’s home, for many animals, is a much bigger place – and its outdoors. An animal’s home is more like a neighborhood that has everything in it that is needed for survival

   Begin a discussion of what humans need to survive (food, water, air, shelter, space). Use the habitat riddles at the end of this section to act as prompts. Ask children to give specific examples of each from their own lives (e.g., house, grocery store, water, clean air, and a park to run and play).

   Discuss the fact that although the basic needs are the same for all animals, the arrangement of the necessary parts might be different - moose need more space than mice, wolves eat different

Connection to Nature
things than deer, etc. The arrangement has to be right for each animal in order for it to be healthy and content.
Activity 2: Habitat Lap Sit

Introduction

Students will learn what constitutes a healthy habitat for animals, and humans alike. They will connect how nature and man’s action can affect the environment and habitats of wildlife.

Materials

Paper
Drawing Utensils

Products

Drawings

Process

1. Have the class form a circle; number the students off 1-5. Assign each number a category as follows: number ones - food, number twos - water, number threes – shelter, number fours – space, and number fives - air.

2. Students should be standing shoulder to shoulder, facing the center of the circle. Now ask the students to turn to their right and take a step toward the center. Students should be standing close together, facing the back of the student in front of them.

3. Everyone then places their hands on the shoulders of the person in front of them. On the count of three students slowly sit down on the knees of the person behind them, keeping their own knees together to support the person in front of them.

4. You should then say, “food, water, air, space and shelter” in the proper arrangement (as represented by the intact ‘lap-sit’ circle), are what is needed to have a healthy habitat.”

5. At this point the students may either fall down or stand up. When their laughter has subsided, discuss the necessary components of suitable habitat for people and wildlife.

6. After students understand the major point - that food water, shelter, space and air are necessary for animals’ survival - let the students try the activity again!

7. This time, connect some human actions and the weather to the health of the habitat. For example (adapt language as needed): Drought: there hasn’t been enough rain and the earth is very dry (ask one or two ‘water’ students to leave the circle). Urban sprawl: the forest is being cut down to make room to build more houses (ask one or two ‘space’ students to leave the circle) Soil erosion: the soil is being blown away and there isn’t enough to grow lots of food (ask one or two ‘food’ students to leave the circle) Dam-building: the new dam flooded the marsh (ask one or two ‘shelter’ students to leave the circle) Increasing vehicle use: there are too many SUVs on the road, causing major pollution problems (ask one or two ‘air’ students to leave the circle)
8. Have students observe what happens when people leave the circle. The circle collapsing or suffering some major disruption represents the effect on animals when their habitats are disrupted. Discuss with students how all areas are interconnected.

9. If time permits, have students draw a healthy habitat for one of the animals discussed earlier. Their drawing should show all the components necessary to provide a healthy habitat.

10. Optional Discussion:
    Ask students to describe their own “habitats.” What, in addition to their home, might be part of the students’ habitat?
    How are their habitats connected to the habitats of other animals in the area?
    Discuss what actions the students can take to help maintain healthy habitats, for themselves and other animals.
Additional Resources

Online Resources

Primary Resources

http://ontarioecoschools.org/curriculum_resources/making_connections.html

Secondary Resources

http://idahoptv.org/dialogue4kids/season10/habitat/facts.cfm
http://www.ehow.com/about_6322569_basic-needs-animals-plants.html

Educational Literature

“Sneakers, the Seaside Cat” by Margaret Wise Brown

“Water Hole” by DK Publishing

Educational Videos

“What is Biodiversity?”-Mocomi Kids
http://www.youtube.com/watch?v=ErATB1aMiSU

“The Basic Needs of Plants & Animals”
http://www.youtube.com/watch?v=Kf3H5km9ra0

Instructional Games


Habitat Riddles (from *Earth Child*)

1. I’m something you need each day, especially after you run and play.
   I fill you up as you drink me down; the tap is a place where I can be found.
   – *water*

2. Your empty stomach can wiggle and pull; I fill it up until it’s full. Sometimes
   I’m eaten hot or cold. I’m kept in the kitchen in most households.
   – *food*

3. Although I’m all around you, I can’t be seen; to keep your body healthy I must
   be clean. You breathe me in through your nose, but try to grab me and away I go.
   – *air*

4. From wind and rain I keep you safe; I’m very necessary in this place. Look all
   around you, for I’m sturdy and tall; you’ll probably find me upon some wall.
   – *shelter*

5. Take me away and you’d be cramped; no place to play and no place to stand.
   To find me you’ll need a rocket, you might presume. What I’m talking about
   is elbow room!
   – *space*
Raccoon
Motion: Walk on all fours, hands and feet, withburn in the air.

Dragonfly
MOTION: Arms out to your side and move up and down while moving forward in a winding path.

Moose
MOTION: Walk forward on all fours, extending and tilting head.

Water Strider
MOTION: Wave arms up and down and skip rapidly.

Crab
MOTION: Walk sideways on all fours.

Starfish
MOTION: Extend arms out like a star and move slowly forward.
**Orca**

**MOTION:** Diving action or jumping up and down.

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**Salmon**

**MOTION:** Point hands together and make a swimming motion.

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**Octopus**

**MOTION:** Wave arms behind body and lunge forward.

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**Clam**

**MOTION:** Lay one arm out front, palm up, and move other arm on top, open and close.

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**Bee**

**MOTION:** Arms extend out like wings and buzz around in circles.

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**Eagle**

**MOTION:** Arms out to your side as wings, flapping as you “fly”.

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Snake
MOTION: Slither across floor.

Blue Heron
MOTION: Hands on your hip so elbows are wings, move head forward for feeding motion.

Turtle
MOTION: Crawl on knees and hands, slowly.

Frog
MOTION: Crouch down and hop.

Bear
MOTION: like a bear fishing, use hands to paw at "fish" and pounce.

Duck
MOTION: waddle side to side.
Human
MOTION: Just walk as yourself.

Butterfly
MOTION: Hold elbows into your side and flutter your hands while moving about.

Penguin
MOTION: Arms held down at sides, take tiny steps with feet pointed outward.

Beaver
MOTION: show front teeth, nod body and move forward to mimic swimming motion.

Otter
MOTION: With hands on chest, walk backward.

Shark
Motion: Hold elbows out like fins and move forward, darting here and there.
Snail

MOTION: Licks with specialized tongue called radula. Display licking motion, using one hand as the radula.

Squirrel

MOTION: Scamper forward on all fours, stop in squatting position with hands in front of chest.

Cougar

MOTION: Jump with hands hanging down, then walk on all fours, then pounce (jump) again.

Gull

MOTION: Soar around with arms extended.

Bighorn Sheep

MOTION: Hands on head like horns, charge forward or walk.

Wolf

MOTION: Tilt head to indicate howling, move arms in running motion as you run forward.
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