

Grade 4th
Habitats for Tree
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Student Learning Objective(s):

- The students will describe ways animals and plants depend on trees for survival.
- The students will identify interrelationships between the organisms using a tree.

LA GLE's

Grade: 4 # 1 : Ask questions about objects and events in the environment (e.g., plants, rocks, storms etc.) (S1-E-A1)

Grade: 4 # 52 : Describe how some plants and animals have adapted to their habitats(LS-E-C2)

Grade: 4 # 53 : Identify the habitat in which selected organisms would most likely live and explain how specific structures help organisms to survive. (LS-E-C3)

Materials needed:

- Learning logs
- Blank sheets of paper
- Pencils
- Crayons

Detailed Procedure. *Describe what the students will do in each stage. Include guiding questions you might ask to help students.*

1. Engage:

Science Process Skills *Indicate which science process skills students will develop in this part of the lesson.*

- | | | | | | | |
|---|--|---|---|--|--|------------------------------------|
| <input checked="" type="checkbox"/> Observation | <input type="checkbox"/> Classification | <input type="checkbox"/> Communication | <input type="checkbox"/> Measurement | <input type="checkbox"/> Estimation | <input checked="" type="checkbox"/> Prediction | <input type="checkbox"/> Inference |
| <input type="checkbox"/> Identifying Variables | <input type="checkbox"/> Controlling Variables | <input type="checkbox"/> Defining Operationally | <input type="checkbox"/> Forming Hypotheses | <input type="checkbox"/> Experimenting | <input type="checkbox"/> Graphing | <input type="checkbox"/> Modeling |

1. Can anyone tell me what they already know about habitats?
2. Do you think animals have an effect on the trees habitat? Why or why not?
3. What about the ground or the surroundings of the tree?

2. Explore:

Science Process Skills *Indicate which science process skills students will develop in this part of the lesson.*

- | | | | | | | |
|---|--|---|---|--|-------------------------------------|------------------------------------|
| <input checked="" type="checkbox"/> Observation | <input type="checkbox"/> Classification | <input checked="" type="checkbox"/> Communication | <input type="checkbox"/> Measurement | <input type="checkbox"/> Estimation | <input type="checkbox"/> Prediction | <input type="checkbox"/> Inference |
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1. The students will take a nature trail outside to the trees habitat.
2. The students will have to write everything they observe about the tree in their learning logs.
3. The students will also observe the different animals that live in the tree.
4. The students will be challenged to think deeply about the effects the tree has on its body. For example if the tree has been stuck by lightening, are if there are any damages to the tree.
5. The students will then have to sketch a picture of the tree.
6. After the students observe the tree real closely and record their findings, they will then have to find another tree to observe.
7. The students will then repeat the process from the first tree.
8. Once the students are finished, they will then go back to the classroom.
9. The students will get into groups of 4 or 5 depending on class size.
10. The students will then compare and contrast the two trees in their groups.
11. The teacher will pass out a blank sheet of paper to draw their chart on.
12. The teacher will draw an example on the board for them to use.
13. The students will then fill in the information from their observations.
14. The students will then discuss what was alike about the two trees and what was different about the two trees.

3. Explain:

Outline the line of questioning you will use to assist students in understanding the concept. List at least 5 good questions and identify the question category (Gallagher & Aschner) in which your question falls (see text, Figure 7.6).

1. Which animals do you think live in your habitat?
2. What is the climate is in your habitat? Is there much water? Is there much sunlight? Is it hot or cold?
3. Which plants live in your habitat?
4. What does the ground look like?
5. If the environment changes, would that effect the habitat? Why or why not?

4. Expand:

Science Process Skills Indicate which science process skills students will develop in this part of the lesson.

- Observation Classification Communication Measurement Estimation Prediction Inference
 Identifying Variables Controlling Variables Defining Operationally Forming Hypotheses
 Experimenting Graphing Modeling

1. The teacher will hand the students a blank page and have them take out their colors
2. The students will draw the two pictures of the trees they observed.
3. The students will then have to label each thing they found in the tree and discussed in their groups.
4. The students will share their drawing with the class.
5. The teacher will hang up their work.
6. The teacher will then have the students pick one of the tree they liked best and write a song about the tree.
7. The students will have to use the informational facts they found about their tree in their song.

5. Evaluate:

What exactly will you do, or what evidence/data will you collect, to ascertain whether the students can achieve the objectives you listed at the top of this lesson?

1. The teacher will assess the students throughout the entire lesson.
2. The students will be assessed during observation of their trees while the teacher goes around asking different questions about the tree.
3. The students will also be assessed while they discuss with the class their findings of the trees habitat.
4. The students will be assessed by the song they construct.

Brain Compatible Learning Strategies Used in This Lesson:

- Brainstorming/Discussion Drawing and Artwork Field Trips Games Graphic Organizers
 Humor Manipulatives, Experiments, Labs, Models Metaphors, Analogies, and Similes
 Mnemonic Devices Movement Music, Rhythm, Rhyme, and Rap Project/Problem-Based Instruction
 Reciprocal Teaching, Cooperative Learning Role Plays, Drama, Pantomimes Storytelling
 Technology (student use) Visualization/Guided Imagery Visuals Writing/Journals

Lesson Source:

American Forest Foundation. Project Learning Tree: Habitats for Trees PreK-8 Environmental Education Activity Guide, 2007.