

4.2 Ecology Treasure Hunt

Story Extension for This Lesson:

Being able to see the complexity of the biome around you is key to being able to reduce your footprint. A scavenger hunt will open the student's eyes to their local surrounding.

Grade: 4

Strand: Habitats and Communities

Big Ideas:

- Plants and animals are interdependent and are adapted to meet their needs from the resources available in their particular habitats. (Overall expectations 1, 2, and 3)
- Changes to habitats (whether caused by natural or human means) can affect plants and animals

Overall Expectations:

1. analyze the effects of human activities on habitats and communities
3. demonstrate an understanding of habitats and communities and the relationships among the plants and animals that live in them

Specific Expectations:

- 1.1 analyze the positive and negative impacts of human interactions with natural habitats and communities (e.g., human dependence on natural materials), taking different perspectives into account (e.g., the perspectives of a housing developer, a family in need of housing, an ecologist), and evaluate ways of minimizing the negative impacts
- 2.2 build food chains consisting of different plants and animals, including humans
- 3.4 demonstrate an understanding of a community as a group of interacting species sharing a common habitat (e.g., the life in a meadow or in a patch of forest)
- 3.5 classify organisms, including humans, according to their role in a food chain (e.g., producer, consumer, decomposer)
- 3.6 identify animals that are carnivores, herbivores, or omnivores
- 3.7 describe structural adaptations that allow plants and animals to survive in specific habitats

Inquiry Skills

Searching, Recording, Classifying

Other 21st Century Skills

Collaboration, Environmental citizenship

Instructions:

This is an ecological treasure hunt in which the students are to inspect the area outside around the school, or in a local conservation area for evidence of a selection of ecological markers. Once everything is collected return to the classroom, (or in the next period) create an ecological web of the community.

Before beginning, students are to be separated into groups of three or four and given a portion of a treasure hunt. The list should be broken up into three or four sections. No list has everything on it, which will help with variety and cause greater challenges for some. Once outside, the students must return with all the things on the list before continuing to the second step. Develop the ideas of zero impact with this exercise, by having the students take images with their devices or tablets (if possible) instead of physically bringing in the evidence. If this is not possible, then the students should be asked to replace the evidence once the teacher has recorded it.

During the second stage of the summary, all of the objects brought in will be tallied and the class as a whole will construct a web of the ecological community around their school. This is a great opportunity to include an expert to help develop the web as well as identify misnomers and invasive species in the system.

Materials List:

- the scavenger hunt lists
- pens or pencils
- camera or digital device

Handouts/Assessments:

- Habitat and Community Nature Hike Treasure Hunt

Nature Hike Treasure Hunt

Team Name: _____

On your treasure hunt, you must complete section one and get your teacher signature before moving on to the second and third section.

Section 1

Item	Check	Teacher Signature
1. An Acorn		
2. A rock containing 2 kinds of minerals		
3. Evidence that an insect has been at work		
4. A tree bark rubbing (labeled with tree try)		
5. A piece of material used to make a nest		
6. A branch with buds		
7. A wild flower		
8. A Cocoon		
9. A Silver Maple Leaf		
10. Two kinds of seeds that travel		

Section 2

Item	Check	Teacher Signature
1. A weed found in a grassy area		
2. Evidence of a litter bug		
3. A bird's feather with proper identification		
4. An Oak leaf		
5. A Clover leaf		
6. Something destructive which was done by man		
7. A leaf with insect eggs		
8. A leaf with spores		
9. Evidence that a predator has been at work		
10. Evidence of good conversation		
11. A frog or toad		
12. Evidence of poor conversation		