

Creeks & Critters

This activity is part of the **Water Protection** theme

What's the purpose of this activity?

To study a natural aquatic environment and identify the various elements of an ecosystem – including flora and fauna. To demonstrate that small creeks and streams in the forest provide a clean, fresh source of water that various plants and wildlife species need to survive.

Key Messages:

- Ability to build a food chain, identifying different plants and animals, including humans as carnivores, herbivores or omnivores
- Understand food chains as a system in which energy from the sun is transferred to other organisms
- Small creeks and streams in the forest provide a fresh source of water that various plants and wildlife species need to survive.

Materials

Permanent:

- Creek model
- Pail / bucket
- Wildlife props
- Activity sheets, pencils and clip boards

Note: This model requires electricity, and should be covered / sheltered from the elements if not placed indoors. **Make sure the pump is unplugged at the end of the day.**

Setup:

1. Use the pail to place water in the bottom pond, and plug in the pump. Ensure the water is circulating properly through the model.
2. Place the wildlife props throughout the display.
The props are:
 - Wolf track - (carnivore)
 - Beaver tracks (2) – (herbivore)
 - Mink skull (carnivore)
 - Deer jaw (herbivore)

- Moose jaw (herbivore)
- Wild turkey feather (herbivore)
- Raccoons (omnivores)
- Picture of humans (Omnivores)
- Pictures of aquatic plants (primary producers)

What will I be doing?

Explain to the students the importance of small creeks and streams in providing water for wildlife. Ask the students if they have ever encountered creeks and streams when walking through the forest, and emphasize that even the smallest of flowing creeks are important habitat for wildlife and should be protected.

Using the activity sheets, clip boards and pencils, ask the students to work in pairs to identify and record each of the 10 wildlife signs in the display. Once the students have identified the wildlife signs, ask them to sort them according to their level in the food chain.

Take up the answers as a group in an orderly fashion, go around the group giving each student an opportunity to identify one prop and place it in one of the levels of the food chain. Close the activity by emphasizing to the students the importance of creeks and streams in providing fresh, clean water and habitat for wildlife.

Answer students' questions about the activity or start a discussion by asking them the following questions. Encourage creative answers.

What is a trophic level?

Trophic levels are the different feeding positions in a food chain; such as primary producers (plants), herbivore, omnivore and carnivore. Green plants form the first trophic level, as the primary producers. Herbivores form the second trophic level, while carnivores form the third and the fourth trophic levels.

Explain the difference between a carnivore, a herbivore and an omnivore.

Herbivores are animals that feed only on plants and vegetation. Example the beaver

A carnivore is an animal or sometimes a plant that is a flesh-eating predator. Example of a plant carnivore is the Venus flytrap; an example of an animal carnivore is the wolf.

An omnivore consumes both plants and animals for survival. An example of an omnivore is a brown bear.

What is the benefit of a food chain?

A food chain is the flow of energy from one organism to the next. Food chains is a system in which energy from the sun is transferred to other organisms. The sun's energy is absorbed by plants (primary producers) and used in the process of photosynthesis. All life on earth is directly or indirectly reliant on primary production and plants are responsible for this production and form the base of the food chain. Food chains usually start with a primary producer and end with a carnivore.

What trophic level do you think humans are in?

Humans can be classified under both the carnivore and herbivore groups but would best fit under the omnivore group, as humans as a species will eat both plants and animals.

Clean Up procedures

Account for all props and associated parts and place them into proper containers

At end of day, wash off creek model, pat dry and place in container but leave container opened to allow the activity model to fully dry overnight.