Create a Food Web

Habitat Lab Field Journal Activity Lesson Plans & Resources

Online Lesson Plans & Resources: https://www.alabamawildlife.org/oc-activity-food-web/

Students will find evidence of a food web that exists within the school's habitat lab and create a model to show the transfer of matter and energy within the environment between producers, consumers, and decomposers.

Example Discussion Questions & Answers (online as an Interactive PowerPoint or PDF)

The questions below can be used to help introduce the topic, engage the students, and build a foundation to discuss the topic:

Q: To review…What is a food chain?
A: *A food chain is the path of energy (in the form of food) from one organism to the next, linking the organisms in a chain with each dependent on the next as a source of food and energy. Example food chain includes the following: sun > plant > grasshopper > toad > snake > hawk.*

Q: Are you part of a food chain? What would an example food chain look like for humans?
A: *Yes, we part of the food chain. We eat hamburgers (meat from cows), cows eat grass, and grass gets energy from the sun. This is an example Food Chain that shows how energy flows from the sun to humans: Sun Grass Cow (hamburger) Human*

Q: How does grass (and other plants) get their energy from the sun?
A: *The sun emits energy in the form of light. The plants absorb the energy from the sun in their leaves, and then use the energy to convert water (from the soil) and carbon dioxide (from the air) into sugars or food. Plants are the original "producers" of energy in food chains using this process called photosynthesis.*

Q: In our previous example, is this food chain complete?
A: *No, the final link in the food chain is the "decomposers." When organisms (plants & animals) die then scavengers like vultures and decomposers like pill bugs eat the detritus including carrion (decaying animal carcasses) and plant matter. The decomposers help break down the dead matter into smaller pieces and process the nutrients so that the nutrients are returned to the ecosystem where they can be used by other plants to grow and survive.*

Q: Which parts of the food chain will be eaten by the scavengers and decomposers?
A: *ALL dead plants and animals will be eaten and broken down into nutrients by scavengers and decomposers. Examples include vultures, earthworms, slugs, pill bugs, fungi, and bacteria.*

Q: What is a food web?
A: *A food web is made of many food chains with overlapping members and is a representation of an entire ecosystem*.

Q: How is the food web different from a "food chain"?
A: *Food chains include one producer (plant), primary consumer (herbivore or omnivore), secondary consumer (omnivore or carnivore), apex predator, and decomposer. Food webs contain multiple producers, consumers, and decomposers that can be found in an ecosystem to demonstrate the interdependence of these organisms.*

Q: What organisms are dependent on one another for food and energy in our habitat lab?
A: *Producers such as grass, bushes and wildflowers; Consumers such as grasshoppers, rabbits and hawks; and Decomposers such as bacteria, earthworms, and fungi (mushrooms).*