



Scavenging the Web - After-school Programs

Meets 3rd Grade California Science Content Standards – 3c and 3d (see Standards Key)

Meets 4th Grade California Science Content Standards – 2b, 2c and 6c

California Visual Art Standard 2.7 - Use contrast (light and dark) expressively in an original work of art.

California Visual Art Standard 2.8 - Use complementary colors in an original composition to show contrast and emphasis.

Taking it Further – California Visual Arts Standard 2.1 – Use shading (value) to transform a two-dimensional shape into three-dimensional form (e.g., circle to sphere).

Animal to Draw for Art Contest – Turkey vulture or California condor

Writing prompt for the sentence of the back of the student's drawing – What is your vulture or condor looking for?

Objective – To understand food webs and the important role scavengers play in the web.

Time – Approx. 20 min

Background - Scavengers play a vital role in food webs. They consume dead material and help recycle energy from the flesh of dead organisms back into the food web for other consumers to use. Without scavengers, many dead animals would rot, potentially spreading diseases. Some scavengers have special adaptations to help them deal with the decaying material; turkey vultures for example, have a bald head. When eating, they sometimes need to stick their head inside the carcass of a dead animal; any feathers on their head would get very dirty and would be difficult to clean. One particular threat that scavengers face is poison. When humans poison pest animals, the scavengers will often feed on the dead animal, eating the poison too. This can have disastrous results for the scavenger.

Vocabulary -

Herbivore: an animal that eats plant material (rabbit)

Carnivore: an animal that eats animal material (red-tail hawk)

Omnivore: an animal that eats both plant and animal material (bear)

Scavenger: an animal that eats dead or decaying material (vulture)

Predator: an animal that hunts other animals for food

Prey: an animal that is hunted for food

Producer: something that produces its own food (plants)

Consumer: something that gets its energy by consuming other things

Decomposer: an organism that breaks up organic matter (fungus)

Materials –

- Dry erase board and marker or chalkboard and chalk
- Index cards with above vocabulary words written on them
- Additional index cards with names of plants or animals that are found in California (Try to have a balance from each of the categories, just like a food web.)
- Ball of strong string or twine

Directions -

1. Write just the definitions on the board. Ask for a volunteer and give them an index card with one of the vocabulary words to place next to a definition, until all words are defined.
2. With the class, brainstorm different animals and plants found in California. Make sure that you have plants and animals from each of the categories listed above in the vocabulary section.
3. Ask the class what there is more of in the food web: producers or consumers? (producers) Prey or predators? (prey)
4. Hand out the cards with the names of the California plants and animals on them.
5. Have all your kids sit in a circle on the floor (with enough room so they can fall back without hitting anything) holding their card so the rest of the class can see what is written.
6. Start with yourself and hold the end of the string.
7. Toss the ball of string to a student whose card relates to the animal or plant that you have. It can be something it eats (a plant), something it gets eaten by (a hawk), or something it lives in. Make sure that they hold on to the string (without wrapping it around their finger) then have them pass the ball to another student. Instruct them to pick a plant or animal that relates to the one they have.
8. Continue having the kids pass the string around with the above instructions, making sure that each student gets a turn, and have the last student pass the string back to you.
9. Ask the kids what they have created: a food web!
10. Have them hold their string and lean back. The web should hold everyone sitting up.
11. Define food webs and discuss that everything in an ecosystem is essential to the survival of a food web. Define a food chain and point out that many food chains make up a food web.
12. Ask one type of animal (herbivore, carnivore, scavenger) or all the plants to drop their string. You can say they died out or were over hunted.
13. Once again have all your students still holding the string lean back. Because of the now slack string they should all fall over backwards.
14. Discuss the results and why everyone fell over. Compare this to a natural ecosystem and what would happen if one of the plants or animals really did die out.

Questions for Discussion – What would happen if there were no scavengers to help break down unfinished dead animals? (Plants wouldn't get the nutrients; there would be rotting, dead animals around.) Where do the sun and water fit into our food web? Is there any part of a food web that is not important?

Resources

"Vultures (Animal Scavengers)" by Sandra Markle

"Vulture View" by April Pulley Sayre

Turkey vulture facts: http://animaldiversity.ummz.umich.edu/site/accounts/information/Cathartes_aura.html

Turkey vulture activities: <http://www.birdday.org/birdday/themes/2014-role-of-birds/crafts-games-lessons>

A video on Turkey vultures: http://www.desertusa.com/video_pages/turkey2.html

Turkey vulture sound recordings: <http://mirror-pole.com/collpage/tv/tv.htm>

Vulture world maps (English and Spanish) and activity pages: <http://www.birdorable.com/vultures/>

Taking it Further

Have students draw their own food chain, ending with a scavenger such as a vulture. Alternatively, have students, as a group, create a food chain found in a different habitat like the forest, ocean, or wetland.

Conservation Action - Reduce, reuse, and recycle. Think about using reusable containers when you take your lunch to school, or take a reusable bag when you go to the grocery store with your parents. Make sure that you recycle what you can and throw away everything else, don't pollute the food web!