

PHOTOSYNTHESIS Station #5

Middle School Science 8(B); 11(B); 12(B); 14(C)

Energy from the Sun is converted to chemical energy through _____.

Compare the plantings on the east side to the west side's growth. Are their needs the same? How do they differ? Write your observations.

FOOD WEB Station #7

Complete the Food Web vocabulary pairs:

Producer/_____ /Prey Parasite/_____

Choose an organism

1. Describe it, including its size, color, and dominant features.
2. What does it eat, or how does it get its nutrients?
3. How does this food source change during each season?
4. How does the organism react to seasonal change?
5. What eats or prey above this organism?
6. Is this organism a producer or consumer?
7. What is the life span of this organism?
8. During which seasons is it most active? Why?
9. Draw a food chain using the organism.

The World Beneath Your Feet Station #13

Middle School Science 8(B,C); 12(B); 14(C)

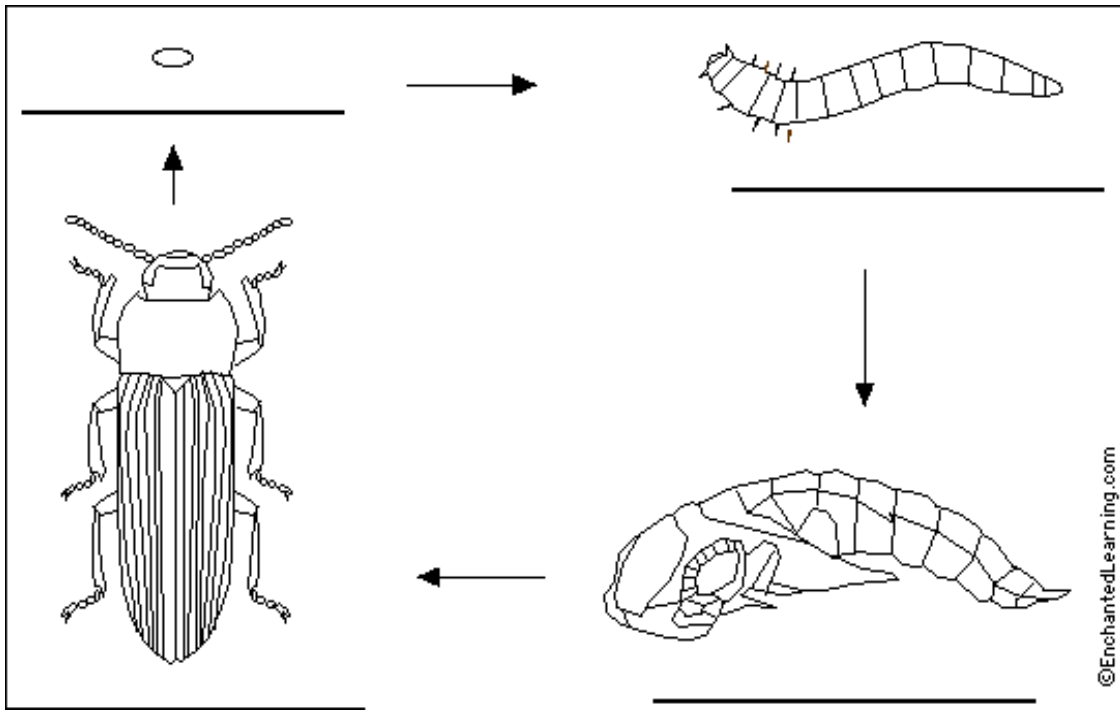
Several trees were cut down and now are rotting logs, an important part of a living community. In each stage of its decay, a rotting log hosts a multitude of plants and animals that either consumes it or each other. The first stage of decomposition begins while the tree is still standing. Insects invade the tree either by boring into it or by entering an opening in the bark that may have been created by an animal or caused by humans, disease, weather or fire. As beetles burrow under the bark, their tunnels permit air, moisture and fungal spores to enter the tree. In turn, the fungi provide food for some bacteria, slugs and insect larvae. Invading carpenter ants attract woodpeckers. Eventually, the weakened tree falls.

Moisture from the damp ground attracts salamanders, centipedes and various scavengers and supports the growth of mosses, ferns and other plants. Wood-boring insects inhabit the dryer portions of the log. As the log collapses, earthworms, fungi and bacteria carry out the remaining decay. It can take up to 10 years to transform a dead tree into soil. The rate of decay is influenced by the temperature, the amount of moisture, the length of the seasons and the succession of organisms living on or in the rotting log.

Look for these animals. Can you add to the list?

| PRIMARY CONSUMERS | SECONDARY CONSUMERS | SCAVENGERS |
|-------------------|---------------------|--------------------|
| | | |
| Bark beetles | Centipedes | Earthworms |
| Click beetles | Mites | Millipedes |
| Wood borers | Ants | Pill bugs/Sow bugs |
| Termites | Salamanders | Snail |
| Carpenter ants | Spiders | Mites |
| Fungi | Woodpeckers | Slugs |
| Bacteria | | |
| | | |
| | | |

Label the stages in the life cycle of a darkling beetle. Where might each stage be found?



Stage #1 _____

Stage #2 _____

Stage#3 _____

Stage #4 _____