



Five Senses

Introduction

In the book *On One Flower: Butterflies, Ticks and a Few More Icks*, author Anthony Fredericks goes on a “field trip between covers” to a single goldenrod plant and reveals the remarkable variety of insects that may be found there. Each insect is well adapted to visit or live on the goldenrod, and to do so it uses very specially developed senses. In this activity students discover how the five senses help animals survive in different ways.

Materials Needed

- ◆ *On One Flower: Butterflies, Ticks and a Few More Icks* - by Anthony Fredericks
- ◆ Whiteboard or a large piece of paper
- ◆ Markers

Procedure

1. Read *On One Flower* as a class with particular attention to how the insects on the plant survive.
2. List the five human senses (sight, hearing, smell, taste, touch) and review the parts of the human body that provide sensory input.
3. Make a chart with the seven insects in the book on one axis and each of the senses on the other axis.
4. Note the sense or senses that are particularly important to the survival of each insect. For example, the sense of smell for the stinkbug (as a defense), or the sense of sight for the ambush bug (using camouflage).
5. Consider what senses are important to each insect, such as the sense of smell to enable a butterfly to find food, or the sense of taste to a ladybug (they taste terrible, and other insects, once having tasted one, will avoid others).
6. Consider what senses may be very poor (for example, ladybugs are blind and literally bump into their food).
7. Consider special cases where insects have much more developed senses than humans (as in the case of the tick, who “smells” carbon dioxide exhaled by animals in order to jump onto that animal).
8. Make notations on the chart reflecting strengths or weaknesses of the senses for the different insects.
9. For further fun, invite students to do research to be able to fill in the blanks on the chart.

Key Concepts

- ◆ Behavior is influenced by internal cues (hunger) and external cues (change in the environment.)
- ◆ Some characteristics of organisms are inherited while others result from interactions.
- ◆ Organisms can cause changes.

For standards correlation please see our website.

Nature Connections

- ◆ After reading the book to your students, invite them to write a letter to one of the boys in the story. What would they like to say? What would they like to ask? (Hint: The boys in the book are the sons of the illustrator!)
- ◆ Invite students to read some of the “insect poetry” listed in the “How to Learn More” section of the book. After reading some of the poetry, invite them to create and assemble their own book of poems about insects in their neighborhood.

Additional Resources

Interesting Insect Websites to Explore

Songs of Insects

http://www.musicofnature.org/songsofinsects/iframes/OLG_main.html

Butterflies of North America

<http://www.butterfliesandmoths.org/>

Using Live Insects In Elementary Classrooms

<http://insected.arizona.edu/uli.htm>

