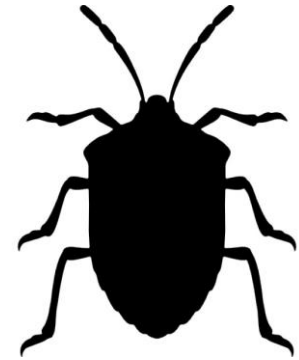

Amazing Antennae



Purpose:

- This activity provides resources that foster a student's understanding of insect antennae. The students will identify different antenna types and associate antennae with their functions in the survival of insects.

Objectives:

- Students will identify different antenna types using magnifying glasses and observational skills.
- Students will be able to identify the functions of insect antennae.

Materials:

Provided in this kit:

- Packet with insect pictures, antenna types, and teacher "cheat sheet"
- Antennae/Insect Matching Game (provided in teacher binder)
- Insect Drawing Sheet (provided in teacher binder)
- Magnifying glasses (located in "for insect collection" box)

Time Required: 1 hour

Appropriate grades: 4th-7th

NGSS and Common Core Standards:

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.



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Activity:

Prior Preparation	<p>Before leading the students through the activity, it will be necessary for you to prepare insect materials for each group from the “Amazing Antennae” folder located inside the bin.</p> <ul style="list-style-type: none">● The folder consists of pictures of the different types of insect antenna and a variety of insect pictures. For this activity, each group will receive all the same insects pictures.● Each group should have the following pictures of insects: housefly (aristate), dragonfly (stylate), click beetle (serrate), mosquito (plumose), scarab beetle (lamellate), grasshopper (filiform), ant (geniculate), termite (moniliform), and sawfly (pectinate).● There is a teacher copy of the insect antenna types and which insect pictures they match with.● Make copies of the antennae drawing sheet and antennae/insect matching game for each student.
Introduction	<ul style="list-style-type: none">● Ask students if they know the different parts of an insect.● Ask them if they know why antennae are important for insects.● Explain that different types of insects have different types of antennae that can come in various and shapes and sizes.
Body	<ul style="list-style-type: none">● Divide students into groups of 3 or 4 and have each group sit together at a table or group of desks.● Distribute the following items to each group: insect pictures, antenna types, magnifying glasses, antennae drawing sheet, antenna matching game, and pencils.● Have students explore the pictures of different types of insects and antenna on their tables.● Have the students draw the different types of antennae that they see using their Antenna Drawing Sheet.● Students should now use their Antenna Matching Sheet to match up which antenna each insect has.



Closure	<ul style="list-style-type: none">● Bring the class back together for a discussion on the functions of antennae.● Pose the following questions to the class: Why do insects need antennae? What replaces antennae in other organisms? Which organism is more efficient at detecting odors and vibrations, insects or humans? Why?
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Modifications:

- Have each student write a paragraph explaining the functions of insect antennae. Ask that they use examples of different insects to illustrate various antennae uses.
- Instead of using pictures to show differences in antenna, you can request preserved specimens from SOU to show the students.
- Have students use dissecting scopes if real specimens are available for use.



Name: _____

Insect Antennae Types Drawing Sheet

Using a magnifying glass, look closely at the antennae of the different insects in the pictures on your table. As carefully as you can, draw each different antennae type.



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Name: _____

Antenna/Insect Matching Activity

Housefly

Geniculate

Dragonfly

Filiform

Click Beetle

Pectinate

Termites

Moniliform

Mosquito

Serrate

Scarab beetle

Plumose

Grasshopper

Stylate

Ant

Lamellate

Sawfly

Aristate

