CCBER: Insect Morphology

Next Generation Science Standards

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats. [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.] [Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats.]

3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. [Clarification Statement: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and, animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring.]

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.]

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [Clarification Statement: Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.] [Assessment Boundary: Assessment is limited to macroscopic structures within plant and animal systems.]

Lesson Plan: Insect Morphology

Objective: Children will learn about insect morphology, how to recognize insects by the number of body sections and number of legs, they will also learn why insects are so important.

Materials

- Spotting scopes
- Insect and other arthropod replicas
- Preserved specimens
- Insect kit
- Insect poster
- Magnifying jar and lenses

Preparation: Organize the station by laying out the plastic insects and put the poster on the wall. Connect the light sources for the spotting scopes and lay out the preserved insects for the children to observe.

Introduction

Get the kids to pull out their KIN journals and turn to the insect structure pages. Remember to review the pages yourself. You can start off the lesson by asking a few questions.

Look at the creatures on the table….what kind of creatures are these? ***You looking for answers like insects, arachnids, bugs and then you can expand.***

Can you name some insects? ***Answers might include beetles, grasshoppers, flies, bees, butterflies, moths etc.***

What is the largest group of insects? ***Beetles are the largest group of insects. Be careful with this question; make sure the children understand that beetles are the largest group of insects, not the largest insects.***

What makes a bug an insect? ***3 body section (head, thorax, abdomen) , 3 pairs of legs or 6 legs, 2 antennae, an exoskeleton.***

75 % of all animals are insects