STUDENT GUIDE

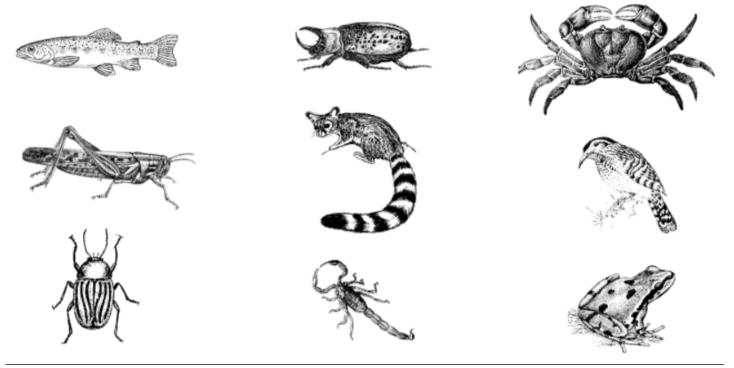
Do you know what an arthropod is? You see arthropods everyday. They can be found just about everywhere. This includes inside buildings, in your yard and even at school. But what are arthropods?

Arthropods are the crawly things you see everywhere. Insects, ticks and sowbugs are all arthropods. Spiders, scorpions, crabs and lobsters are also arthropods. Centipedes and millipedes are as well. Why are all these creatures called arthropods?

All arthropods have three things in common. First, their bodies are separated into **segments**. This means that there are distinct head and body sections. Second, arthropods have an **exoskeleton**. An exoskeleton is a hard out covering. Finally, arthropods have two of each **appendage**. That means they come in pairs. There could be 2, 4, 6, 8, 10 or more appendages. An appendage can be a leg, antenna, claw or wing.

So the next time you go outside, look for arthropods. But remember: look only and do not touch. Many arthropods can bite or sting.

Look at the pictures below. Can you name all of the creatures? Label the ones you know. Then, using your knowledge, circle all of the arthropods.



Below are pictures of two different arthropods. The one on the left is a Palo Verde Root Borer Beetle. The other one is called a Desert Centipede. Write the name of each one on the line by the arthropod. Then, answer the questions below.

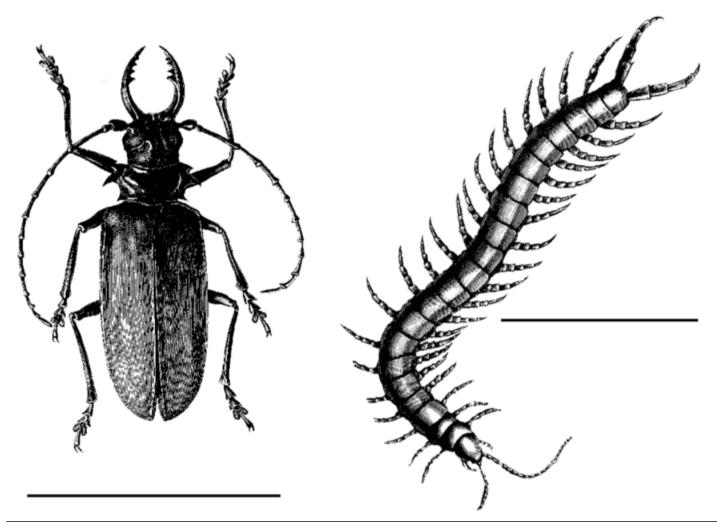
How many segments are there in the centipede's body? _____ How many segments are there in the beetle's body? _____

How many legs are there in the centipede's body? _____ How many legs are there in the beetle's body? _____

How many segments are there in the beetle's antenna? _____

Look at the centipede closely. Do you notice that the head and the tail look similar? Circle the end that you think is the head.

Why do you think both ends of the centipede look so similar?



TEACHING GUIDE

Overview

In this activity, students will read a short passage to learn the characteristics of arthopods. Then, they use that knowledge to identify arthropods from a collection of images. Finally, they use two new images to answer specific questions.

Suggested Procedures

- 1. Print the worksheet above. If possible, print it double sided.
- 2. Ask students to read the short passage and answer the question at the end.
- 3. Discuss the student responses. They should have been able to identify 5 arthropods from the pictures. These are: the last two in the first row, the first one in the second row and the first two in the last row.
- 4. Now have the students move to the second page. Ask them to read the first paragraph and then label the two arthropods at the bottom of the page.
- Next, have the students answer the questions. They should be able to easily count the different segments and appendages.

6. Discuss the student responses, particularly the last one about the centipede. Students should be able to explain their answer. For example, the head has antenna that can be used to sense the world around them.

7. To recap, have students identify the characteristics of arthropods. If possible, show pictures of new animals and have them classify them as arthropods or something else.

Grade

1st

AZ Science Standards

• 1.L4U1.10

Science and Engineering Practices

 Obtain, evaluate and communicate information

Crosscutting Concepts

• Stability and Change