

**Garden Spiders & Crab Spiders:
Similarities & Differences**
Big World of Insects, Spiders & Bugs Series

Subject Areas: Science, Life Science, Biology

Synopsis: In this program, students will be able to compare and contrast two different species of spiders, the delicate crab spider and the brightly colored garden spider. A garden spider is seen repairing its web and catching a variety of prey. A crab spider is seen stealthily hunting prey among the petals of a flower. Students will see that not all spiders spin webs and wrap prey in silk, but they will note that all spiders have eight legs and two body parts.

Learning Objectives:

- Objective 1)** Students will be able to identify the parts of a spider: the head, abdomen, eight legs, and spinnerets, and discuss how spiders differ from insects.
- Objective 2)** Students will be able to compare and contrast the physical characteristics and ways of capturing prey between these two species of spider.
- Objective 3)** Students will be able to describe how a spider can use silk to capture prey.

Vocabulary: Define and discuss the following key terms:

Garden spider, agile, spinneret, abdomen, meticulous, shroud, prey, merciless, endowed, insect, arachnid, pollen, nectar, discreet, venomous, manipulate

Pre-Viewing Questions and Discussion:

- 1) How are spiders different from insects? With your class, brainstorm a list of as many differences as you can think of.
- 2) Do you think all spiders catch prey in webs of silk?

Post-Viewing Questions and Discussion:

- 1) Describe the garden spider. Have you ever seen this spider? Where would you expect to find this spider?
- 2) How does a garden spider recycle its silk?
- 3) How is the spider alerted to the presence of a bug caught in its web? How is the spider able to tell the size of the bug?
- 4) As soon as the grasshopper is caught in the spider's web, what does the spider do? Describe how the spider subdues the grasshopper.
- 5) What parts of the prey does the spider eat? What does it do with the leftover part(s)?

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- 6) Describe what happens between the spider and a praying mantis.
- 7) What does a crab spider look like? Where would you expect to find this arachnid?
- 8) What insects are seen feeding on the flower? Do you think all of these insects would be considered prey for the crab spider? Explain your answer.
- 9) How does the crab spider hunt?
- 10) Why does the crab spider avoid the wasp? Why is the wasp a problem for the crab spider?
- 11) How is the crab spider eventually able to catch a fly?
- 12) How does the crab spider immobilize the fly?

Additional Activities:

- 1) Draw a detailed picture of both a garden spider and a crab spider. On each insect, label the head, abdomen, and eight legs. Color each spider appropriately and show it in the appropriate environment.
- 2) Compare and contrast these two types of spiders. Be sure to consider the size and shape of each, the coloring, how each spider hunts and catches prey, and the use of silk.
- 3) There are many different types of spiders. Research 3-7 species of spiders found in different places around the world. Find out how these spiders differ in size, shape, coloring, the type of prey caught, and how they catch it. Present your findings in a report, and include illustrations or pictures of the different spiders.
- 4) Spider silk is a very strong substance considering its size. Research spider silk and determine how it is made and how strong it is. How have people been able to use this substance?
- 5) Explore arachnophobia. How many people suffer from this fear of spiders? Why is this such a common fear? How can this fear be overcome? Do you think this fear is deserved?

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