



## **Spiders: Weave a Web**

Ages 3-8

**Theme:** Spiders have amazing ways to catch their food, and they help us by controlling insects.

### Materials

Plastic spiders  
Plastic insects  
Roll of twine  
Masking tape  
Photo of wolf spider  
Photo of spider claw

### **Intro:**

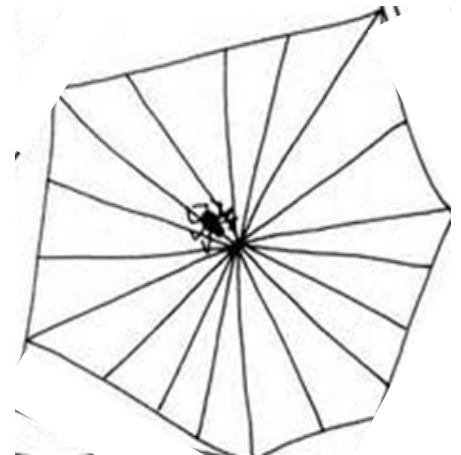
One of the most unique things about spiders is the fact that they produce silk. Most spiders spin webs with their silk (these are called orbweavers). Some (like tarantulas) just use silk to line their burrows or store food. Spider silk is one of the strongest materials in the world. If you combined enough silk together to make it as thick as a piece of steel, it would be stronger!

### **Body:**

#### Spider Web Construction

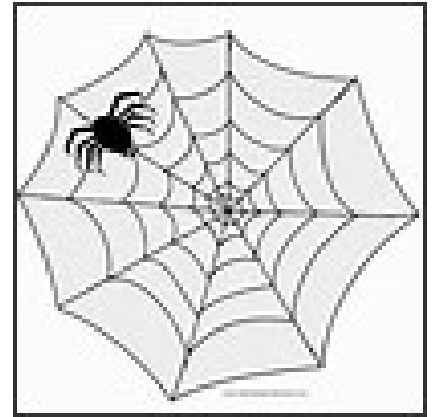
Many spiders rebuild their webs each night. It takes anywhere from 30-60 minutes for most spiders to spin a web.

Let's examine how a spider builds a web. *Find a nice big open area—like cement under a shelter or a nice-sized patch of sidewalk.* Take ball of twine and give masking tape to an assistant. Have the assistant tear off small pieces of masking tape and give them to each child. Begin unwinding the string and making an asterisk-like pattern. Start with string on one end and lay it down across the pavement; continue the string to the side and start another bar of string across the center until you have a complete circle pattern. It should look something like this:



A spider then starts spinning the circular part of the web from the inside out, and then follows the spiral back to the center, replacing the original strands with sticky threads.

To make this simpler, you can start from the center of the web to make the spiral. When you reach the outside, you can explain that the spider would actually go back to the center on her spiral to replace the strands with sticky threads. You could even have children walk from the outside, follow the spiral to the center, and pretend they are spiders doing the work. It should look like this when done:



### Not getting stuck

How do spiders keep from getting stuck in their own webs? They spin several types of silk—some sticky and some not. They seem to know where to walk to avoid the sticky places. They also run across the web very quickly on tiptoe. Think about walking on a hot sidewalk. If you walk slowly, it burns your bare feet. If you run across quickly on tiptoe, you can get across without burning your feet. A spider does the same thing—it is just trying to avoid the stickiness instead of the heat. *Kids can practice running on tiptoe.*

### Catching Insects

When an insect lands on a web, the vibrations clue the spider to the fact that something is caught. The spider then wraps the insect in silk and prepares it for eating. Spiders and insects have their skeletons on the outside of their bodies instead of the inside, like ours. *Have children feel for their bones inside their arm.* Some of those hard parts are left behind after the spider finishes its dinner.

*Show photo of spider claw.* Spiders than spin webs usually have three claws on the end of each leg while non-web spiders usually have two. The third claw helps them cling to their webs. Spiders legs are composed of seven segments.

**ACTIVITY FOR YOUNGER CHILDREN:** Give each child a plastic spider to hold. Place a bunch of plastic insects on various places in the web. Have children sit in a circle around the web. Tell them their spider feels the vibration of the insect getting caught in its web. It then needs to run along the strands to catch the insect. The children can use their plastic spider to run along the web strands toward an insect to catch it. Once they catch it, they remove it from the web and place it in a pile. This seems like a really simple activity but young children love it.

**ADAPTATION FOR OLDER CHILDREN** (suggested by VNs Ann Cooper and Katherine Young): have children stand in a circle and form a spider web in the middle of the circle by stretching string across the circle from child to child, going back and forth to form the main structure. Then have another child or two begin weaving the string from the inside out in a circular pattern (they'll need to stand underneath the main web structure to do the weaving).

### **Conclusion:**

A spider can eat about 2000 insects a year. Orbweavers are important! The best thing to do is to leave spiders alone and let them do their job.

*--Deborah Price, Education Liaison, March 2015*