

How Does a Spider Build Its Web?

Scientific Background

Spiders have special spinning organs at the posterior end of their abdomen called *spinnerets*. The spinnerets produce silk. Silk is a strong and flexible material. Spiders use silk in numerous ways: to build webs, to surround their egg sacks, to wrap up bugs they catch, as a safety line (also known as a dragline), and as parachutes that glide on the wind.

Spiders build many different kinds of webs. Some spiders weave their webs to help them capture prey. The familiar “Halloween web” is called an orb web. The spiral threads of an orb web are sticky and can trap flying insects. Spiders frequently tear down damaged webs, recycling the silk by eating it, and may rebuild a new web every evening.

Vocabulary

- abdomen
- bridge line
- framework
- orb web
- radial line
- spinneret
- vibrate
- anchor
- flexible
- hub
- prey
- silk
- spiral
- weave

*Vocabulary definitions can be found in the **Backyard Bugs** Glossary.*

Thinking Question

How is the design of a spider’s orb web effective for catching prey?

Exploratory and Extension Activities

Additional Exploratory and Extension activities are available in the Backyard Bugs Teacher’s Guide.

Diary of a Spider

Read and display the book *The Diary of a Spider* by Doreen Cronin, with illustrations by Harry Bliss (Joanna Cotler, 2005, ISBN: 0060001534). Discuss what a diary is, and why a person might keep a diary. Have students create their own diaries. Allow opportunities for students to make entries about their experiences in school, specifically about studying bugs.

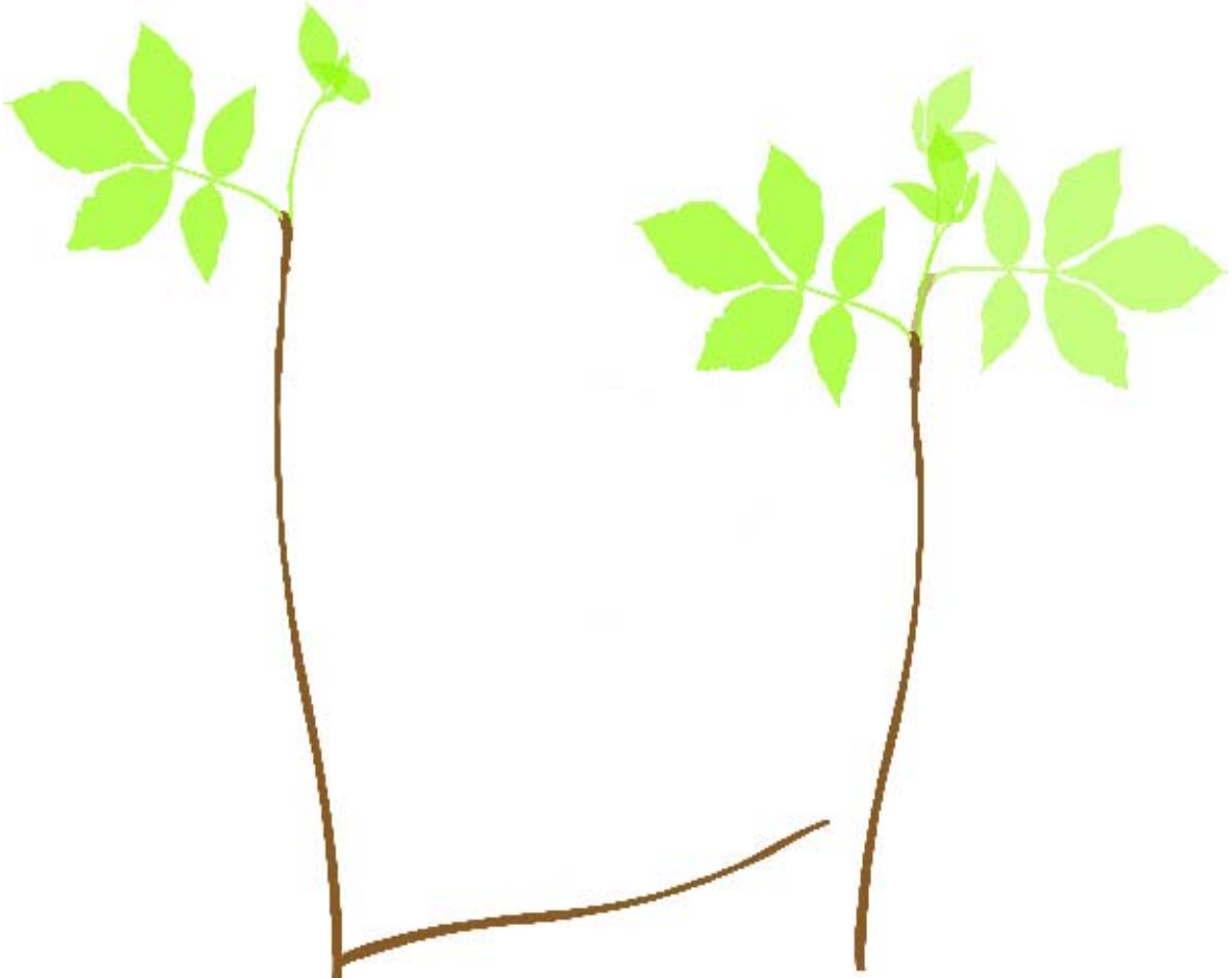
The Tarantella Dance

Visit this site, <http://www.streetswing.com/histmain/z3tartla.htm>, to learn about the tarantella dance: Use this Web site to discuss the history and legends surrounding the tarantella. Select tarantella music and play it for the students.

Name: _____

How Does a Spider Build Its Web?

Use the branches to draw a spider's web.

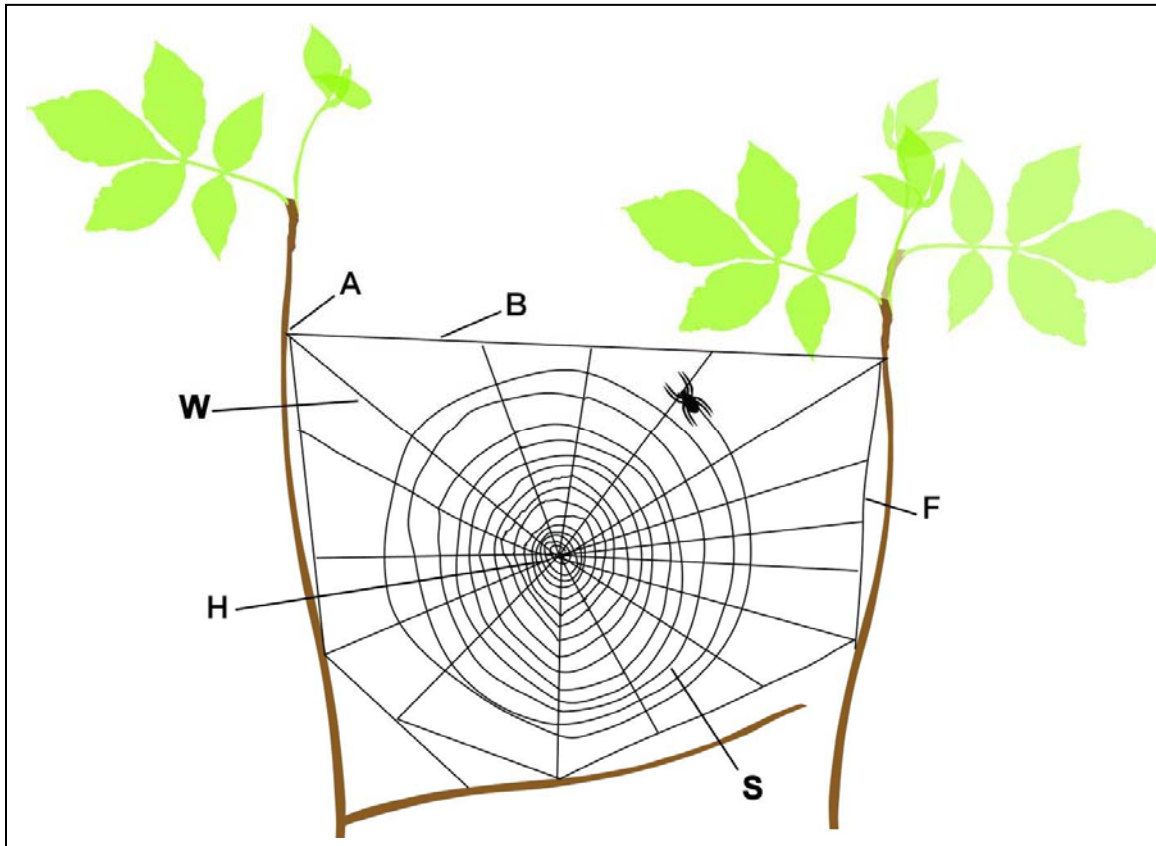


Label your drawing with these parts of an orb web.	Answer this question: Why does the spider build a web?
<p>A = Anchor Point B = Bridge Line F = Framework H = Hub S = Sticky Spiral W = Web Spoke</p>	

Answer Key

How Does a Spider Build Its Web?

Use the branches to draw a spider's web.



Suggested answer: Student drawings should have a web drawn on the branches. The web's features should have the appropriate labels.

Label your drawing with these parts of an orb web.	Answer this question: Why does the spider build a web?
<p>A = Anchor Point B = Bridge Line F = Framework H = Hub S = Sticky Spiral W = Web Spoke</p>	<p>Suggested answer: A spider builds a web to catch prey.</p>