

SPECTACULAR SPIDERS



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

OBJECTIVES

- Learn the parts of a spider.
- Learn how they build their webs.

GUIDING QUESTIONS

- What makes a spider, a spider?
- How do spiders make their webs?

MATERIALS

1-Pinecone
4-Pipe Cleaners
8 Googly eyes
Glue Stick
1-Piece of cardstock (or construction paper)
Several sheets of copy paper
Pencil

CONCEPTS

- Spiders are different from insects.
- Most spiders do not spin webs but they all produce silk.
- Spiders play a crucial role in the food web as both predator and prey.

FACTS

- Spiders have two body sections. A *cephalothorax*, where all 8 legs attach and an abdomen.
- They also have 2 "mini legs" on the front called *palps* that help them hold onto prey.
- Most spiders have 8 eyes, though some have 6 or fewer.
- Even with all those eyes, spiders have poor eyesight and rely on touch, vibration, and taste to get around.
- Spiders make silk in a special organs called spinnerets.
- For its weight, spider silk is actually stronger than steel.



INTEREST APPROACH-ENGAGEMENT

Ask:

- What do you think spiders need to live?
- Why do you think spiders have so many eyes?
- What roll do you think they play in the environment?

**Illinois
Master
Naturalist**



ACTIVITY 1: EXPLORE A GARDEN OR PARK AND LOOK FOR SPIDERS IN THEIR WEBS

- Fall is a great time to see orb weaver spiders. They are the ones that build big spiral webs.
- Take your nature journal out and record what you find. Don't forget to draw pictures of what you see as well.
- Early morning is the best time to find webs. Look around door and window frames, between two sturdy plants, or between two tree branches.
- Diurnal (Day time) spiders are often brightly colored, noturnal (night time) spiders are often brown or gray.

ACTIVITY 2: MAKE A NATURE JOURNAL

- Take a piece of cardstock and fold it "hamburger" style or width-wise.
- Fold several pieces of copy paper the same way.
- Put the cardstock on the outside of the copy paper to act as a cover.
- Keep track of your observations by drawing pictures of what you see and writing down descriptions and measurements.

ACTIVITY 3: MAKE A PINE CONE SPIDER

- Using the flat end of the pine cone for the front of the spider, twist each of the 4 pipe cleaners around the pine cone. Shape the pipe cleaners like a spider's legs.
- Peel off the backing on the googly eyes revealing a sticky adhesive. Attach the eyes on the front of your spider. Note the arrangement of eyes often gives you a clue to what type of spider it is.
- Stick up to all 8 eyes on your spider. It is your choice how many to give your spider.
- If the adhesive doesn't stick to the pine cone, use the provided glue stick to add glue to the back of the googly eye and then stick it to the pine cone. Note: Small children may need assistance with this task.