

Pre-Field Trip Activity: Super Spiders

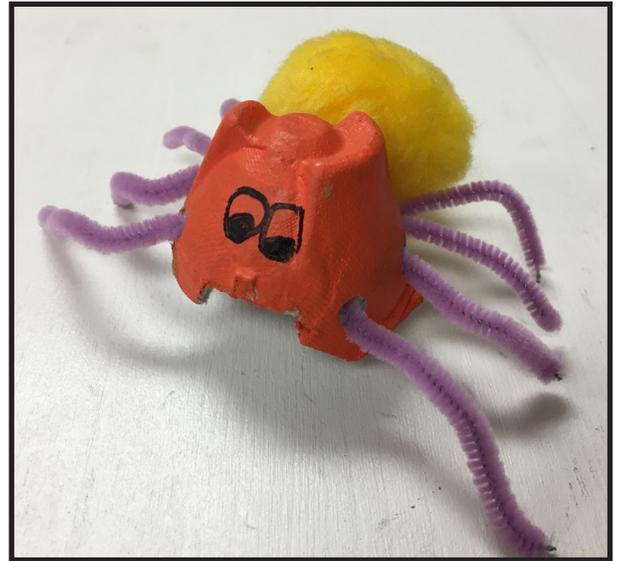
Overview

Time: 30 Minutes

Number of Students: Unlimited

Materials: (per student)

- 1 egg carton cup with 4 holes punched on each side. You will need a single hole hand-held puncher to make this happen.
- 2 pipe cleaners
- 1 small piece of masking tape
- 2 googly eyes
- 1 colorful pom pom
- White glue
- Scissors
- Coloring materials
- Construction paper



Advance Preparation:

Organize and prepare supplies. A few notes on the egg carton cups. 1) Styrofoam egg cartons are a little easier to cut up than the cardboard ones. 2) You can choose to paint the cups a flat color before handing them out to the students. Just make sure they have had plenty of time to dry first. This takes time though and if the cups are a blank enough surface you can have the students use markers or crayons to color on a design themselves.

Purpose:

The purpose of this activity is to teach students all of the parts of a spider. Often, students see pictures or cartoons of spiders that don't show all of the correct body parts or the legs are coming out of the wrong part of the body. By making their own spider and learning the body parts as they build, they can better understand "what goes where." This will set them up with a basic understanding of spider anatomy, which will support their experience of the entire Super Spiders field trip at the Insectarium.

Lesson Steps:

Pass out all of the materials and explain what each one is.

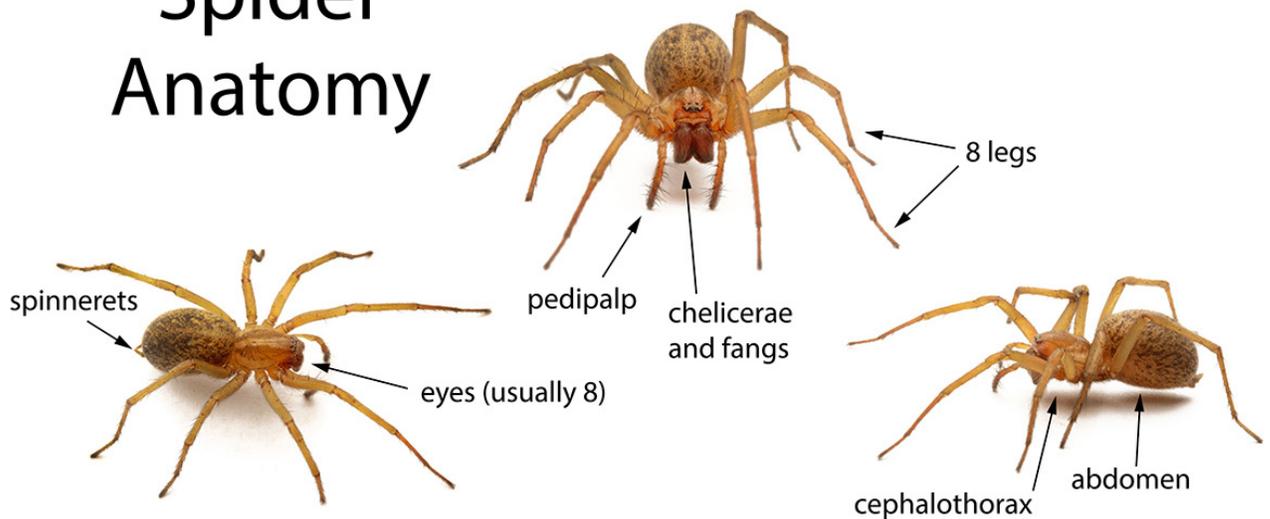
- Pipe Cleaners: Legs
- Egg Carton Cup: Cephalothorax
- Pom Pom: Abdomen
- Construction Paper: Spinnerets, Fangs & Pedipalps

Explain the basics of spider anatomy by drawing a spider on the board, labeling all of its parts and giving a short, one sentence explanation of what that part does. Information on the details of spider anatomy and the simple explanations you'll need can be found on the following page.

Lesson Steps

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Spider Anatomy

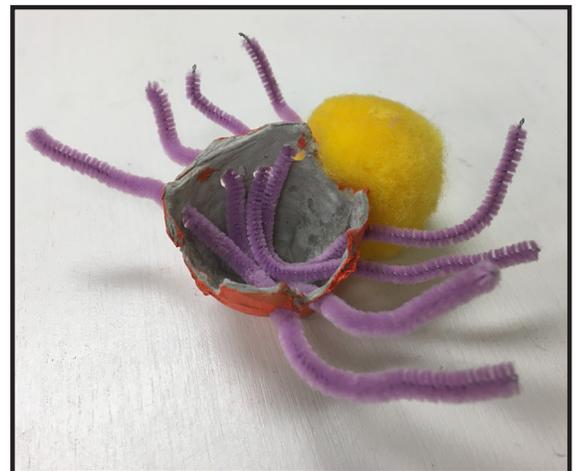


- Pipe Cleaners: **Legs** - Helps the spider move around.
- Egg Carton Cup: **Cephalothorax** - This is where the brain of the spider is and where all of the legs connect.
- Pom Pom: **Abdomen** - This is where most of the “guts” of the spider are. Here you can find the heart, lungs, intestines, silk glands and reproductive organs.
- Construction Paper: **Spinnerets** - This is where all of the silk comes out.
- Construction Paper: **Fangs** - How spiders catch, subdue and eat their prey.
- Construction Paper: **Pedipalps** - These are part of the spider’s “mouth,” they move food closer to the fangs so the spider can eat more easily.
- Googly Eyes: **Eyes** - Spiders can have between 0 and 12 eyes but usually have 8.

Building the Spider

Walk students through, step by step, the process of building their spider.

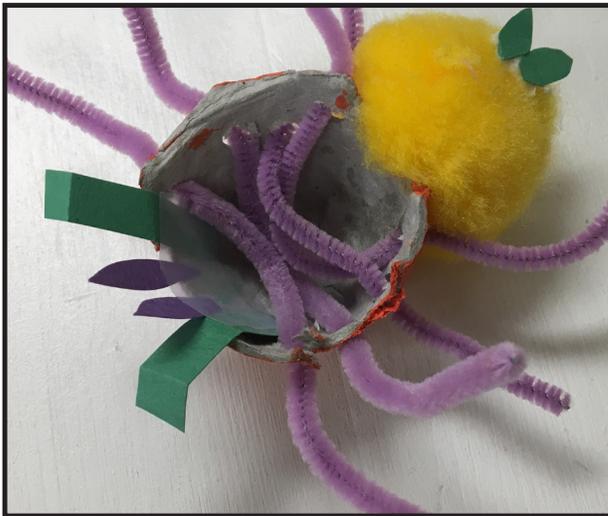
1. Cut each pipe cleaner in half: students will now have four pipe cleaner pieces.
2. Have students stick their pipe cleaner pieces through the hole punch on one side and out the matching hole on the other side. Repeat until all pipe cleaner pieces are used and all holes are filled.
3. Use masking tape to fix the pipe cleaners in place so they don't fall or slide out. The take-away here is that the legs are attached to the cephalothorax, not the bigger abdomen.
4. Next, have the students glue the eyes down onto one side of the egg carton, a side that doesn't have legs.



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Building the Spider

6. On the last empty side of the egg carton, opposite from the eyes, have students leave a large drop of glue and hold down the pom pom in place. Students will need to patiently hold the pom pom in place or set it down and not touch it for a few minutes.
7. Create the spinnerets by cutting out two small triangles from the construction paper. Glue these down gently to the bottom of the pom pom and let dry.
8. Create the pedipalps by cutting out small rectangles about an inch long each. Glue the pedipalps down on the inside of the egg cup (on the side with the googly eyes) so that most of the paper sticks out. Make sure they are fairly widely spread apart, the fangs will need to go in-between them.
9. Create the fangs by cutting out long, narrow, sharp edged ovals from the construction paper. Then glue or tape them down inside the egg cup in-between the two pedipalps.
10. Allow students to color in their egg carton top with patterns and colors of their liking.



A review of spider anatomy will start off the field trip as a chance for students to both show off their newly learned anatomy terms and as a chance to refresh and reinforce that knowledge.

