

Photo Description



This image shows a dark-colored spider sitting on brown, rocky soil. You can see the spider's eight long, thin legs spread out around its body, and its small, round body in the middle. Spiders are animals that live in many different places, like gardens, fields, and even near our homes.

Scientific Phenomena

Anchoring Phenomenon: Why does a spider have eight legs?

Spiders are arachnids, a special group of animals that all have exactly eight legs. This body structure helps spiders move quickly across different surfaces—soil, rocks, plants, and webs. Each leg has tiny claws and special joints that allow spiders to grip surfaces and hunt for food. Unlike insects (which have six legs), spiders' eight-legged body plan is an adaptation that makes them excellent hunters and survivors in their environments.

Core Science Concepts

- * Animals Have Body Parts: Spiders have legs, a body, and eyes. Each body part helps them survive and move.
- * Living Things Live in Different Places (Habitats): This spider lives on the ground where it can hunt for insects. Different animals need different homes.
- * Animals Move in Different Ways: Spiders use their eight legs to walk, run, and climb. Their legs help them catch food and escape from danger.
- * Spiders Are Different from Insects: Spiders have eight legs; insects have six legs. This is one way we can tell them apart.

Pedagogical Tip:

For Kindergarteners, use the "8 Legs" chant: Have students hold up their fingers and count to eight while saying "Spiders have 1, 2, 3, 4, 5, 6, 7, 8 legs!" This multisensory approach (movement + counting + rhythm) helps young learners remember the key distinguishing feature of spiders in a developmentally appropriate way.

UDL Suggestions:

Representation: Provide large, clear images of spiders with legs labeled and color-coded. Create a tactile spider model using pipe cleaners so students can manipulate and explore the eight-leg structure with their hands. This supports learners who benefit from kinesthetic and visual input.

Discussion Questions

- * What body parts does this spider have, and how do they help it live? (Bloom's: Understand | DOK: 1)

- * Why do you think the spider has eight legs instead of four or two? (Bloom's: Analyze | DOK: 2)
- * Where do spiders like this one live, and what do they need to find there? (Bloom's: Understand | DOK: 1)
- * How is a spider different from an insect or a butterfly you've seen? (Bloom's: Compare | DOK: 2)

Extension Activities

1. Spider Leg Movement Exploration: Give students eight pipe cleaners (or yarn pieces) and have them create a spider model. Students can move the legs in different ways to see how spiders might walk, climb, and turn. Ask: "How many ways can your spider's legs move?"
2. Spider Hunt Walk: Take students on a safe, supervised outdoor walk to look for spiders in gardens, under rocks, or on plants (do not touch). Have them draw or paint the spiders they observe and compare the leg structures. Create a classroom chart: "Spiders We Found."
3. Eight Legs Sorting Game: Provide picture cards of various animals (spiders, insects, animals with four legs, etc.). Have students sort them into categories: "8 Legs" and "Not 8 Legs." This reinforces the defining characteristic of spiders.

NGSS Connections

Performance Expectation: K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.

Disciplinary Core Ideas:

- K-LS1.A All organisms have structures that serve different functions in growth, survival, and reproduction.

Crosscutting Concepts:

- Structure and Function
- Patterns

Science Vocabulary

- * Spider: A small animal with eight legs that hunts insects and spins webs.
- * Arachnid: The special name for spiders and animals like scorpions that have eight legs.
- * Legs: Body parts that animals use to move and walk from place to place.
- * Habitat: The place where an animal lives and finds food and water.
- * Predator: An animal that hunts and eats other animals for food.

External Resources

Children's Books:

- The Very Busy Spider by Eric Carle
- Miss Spider's Tea Party by David Kirk
- Spiders by Gail Gibbons

YouTube Videos:

- "Learn About Spiders for Kids" – National Geographic Kids

Brief Description: An engaging, age-appropriate video showing real spiders and their body parts with colorful animations.

URL: https://www.youtube.com/results?search_query=national+geographic+kids+spiders

- "Spider Song for Children" – CoComelon

Brief Description: A catchy song that teaches children about spider body parts and movement in a fun, memorable way.

URL: https://www.youtube.com/results?search_query=coco+melon+spider+song

Teacher's Note: This lesson connects to the real world by using a photograph of an actual spider in its natural habitat.

Kindergarteners learn best through observation, movement, and hands-on exploration. Emphasize wonder and observation over fear, as many children may have anxiety about spiders. Frame spiders as helpful animals that eat pesky insects!