GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

KNOW YOUR NEIGHBOR: SPIDERS

GREAT SMOKY MOUNTAINS NATIONAL PARK
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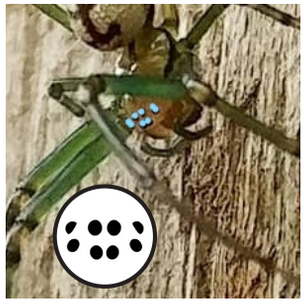
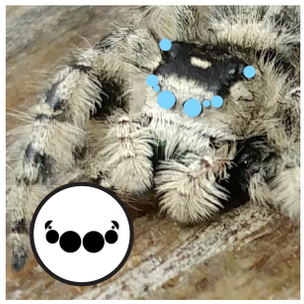
EYE ARRANGEMENTS

How many eyes does your spider have? Are they all the same size? Where are they? Which way do you think each eye is looking?

Spiders in the same family share the same eye patterns, so knowing the number, size, and arrangement of your spider's eyes can help you figure out what kind it is! Does your spider share any of these common patterns? Or could it be a different kind?



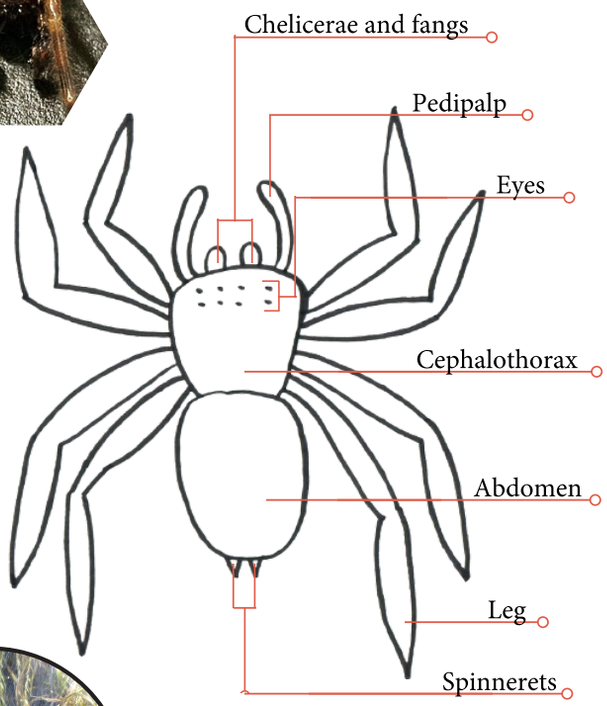
Clockwise from upper left: Fishing spider (Pisauridae), long-jawed orbweaver (Tetragnathidae), jumping spider (Salticidae), and wolf spider (Lycosidae).



MALE OR FEMALE?

Spiders use their pedipalps, or palps, to feel what's around, hold food, and move soil out of their burrows--and male spiders use them to mate! Mature male spiders look like they have little boxing gloves, called palpal bulbs, on the ends of their palps. Does your spider?

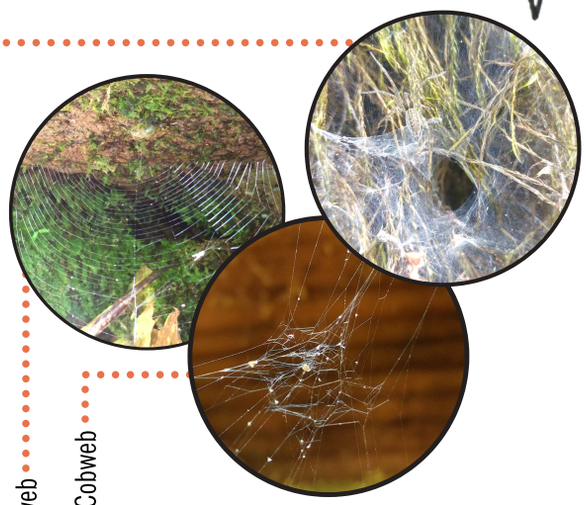
Warning! This method works best for spiders that mature quickly. If your spider has fangs that face each other like pincers instead of moving up and down, it is a great candidate for this method!



SPIDER WEBS

Did you find your spider in a web? Was the web flat, or was it three-dimensional? How would you describe it? Orderly? Cluttered? Soft? Spiky? Are the threads sticky or dry? Does the web have any unusual features?

Spiders use their spinnerets to let out silk that can be used to make egg sacs, wrap prey, and more--including building webs! Not every spider lives in a web, but the webs of those that do can give us a clue to the kind of spider they are. Did you find your spider in a web like one of these? Or did the web look different? Or maybe it wasn't in a web at all!



Cobweb — Messy-looking bundles of dry and sticky silk supported on attachment threads. Some cobweb weavers (family: Theridiidae) even build sticky lines as booby traps that pull prey into the web!

Orb web — Can be very different! They might have a big hole in the middle (Tetragnathidae), fluffy, non-sticky threads (Uloboridae), a zigzag design in the middle (Aranaeidae), or none of the above!

Sheet web — Flat, opaque layers of silk. Some spiders (Agelenidae, above) build funnel retreats in the corners of their webs, while others (Linyphiidae) hang upside down from the bottom of their web and pull any prey that walks across right through it.