



Spider Sleuthing

Background Info:

Most spiders have eight eyes, and in some species – most notably those that hunt for their prey as opposed to those that spin webs – four of those eyes have a reflective membrane behind them. This membrane acts like a mirror, reflecting light back onto the retina. This allows the spiders to take maximum advantage of all of the photons reaching their eyes, which in turn allows them to see better in the dark. Many animals that forage or hunt at night – like cats, dogs, deer, raccoons, and others – also have this same kind of membrane, which produces eye shine, or the “glowing eyes” effect.

Spider eye shine is usually green, and the species we’re most likely to find here in Michigan are wolf spiders. Don’t worry – their venom is not at all dangerous to humans.

Materials:

- Just a flashlight or a headlamp!

Activity:

1. Venture outside at night and put on your headlamp, or, if you have a flashlight, hold it at eye level next to your head. (This may look a little silly, but it gives you the best angle for seeing the spider eye shine).
2. Select an area in your yard where grass meets a hedge, woods, or some bushes, as these areas are great spider habitat.
3. Scan the ground about 10-20 feet in from of you, watching for the green sparkly shine of spider eyes.
4. When you spot some eye shine, slowly walk closer. Following the eye shine should lead you to a small, harmless spider.
5. See how many spiders you can find, or see what the smallest spider you can find is. Do the spiders look like different kinds, or all the same species? What other colors of eye shine do you see? (Red might indicate moths, for example).

