

Silken Shimmers: Spider Webs

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Beautifully woven shimmering silk is one of my favorite finds, especially when bedazzled with the jewels of early morning dew. When exploring gardens, woods and fields I look for silver orbs spreading between branches or at the shed entry. The orbs remind me of children's bicycle wheels that have been decorated for parades with crepe paper woven through the spokes.

In the meadow I often find puffy masses of silk that look much like a pillow or tent with a small round tunnel leading downward to its interior.

These beautiful gossamer creations are the handiwork of spiders. Each kind, or family, of spider makes a specific kind of web – orb, sheet, tangle, funnel, purse... No matter the spider or the web type, they all start with silk – spider silk.

Spider silk is used by spiders for more than just web-making. They also use it to wrap and protect their eggs, for wrapping up prey – saving their dinner for later, to suspend themselves in mid-air, or to float like a balloon through the air for miles – as spiderlings do to disperse on the wind. An aquatic spider, *Argyroneta aquatica*, makes a diving bell from silk. The bell is for carrying the air it must breathe while hunting under water.

Spider silk is a protein that starts as a liquid within the body of the spider. It is made by a silk gland and released through a spinneret on the spider's abdomen. There are seven types of silk glands. Each produces a unique silk that is used by the spider for specific purposes. No spider has all seven silk glands, but orb weavers have five of them.



Interesting Facts

- All spiders produce silk but not all spiders make webs.
- Orb weavers make the spokes of the web first, then add the spirals.
- Some spiders recycle – they eat their old webs before they spin a new one.
- [A cape made from the silk of Golden Silk Orb-weaver spiders](#) was on display in 2012 at the Victoria and Albert Museum.

Activities for Children & the Young at Heart

1. Take a hike around your house and look for spider webs. Settle in and watch the spider at work. Draw and write about what you observe. If you prefer, photograph the webs. Place a black sheet of paper behind the web if needed for contrast; be sure not to disturb the web.
2. If you could make spider silk what would you do with it? Draw or make a list of all that you'd do.

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