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PATIENCE // ORB WEAVER // RUSSET

All of the world's roughly 50,000 species of spiders make silk, but only about half build webs. Webs are designed to trap prey. For spiders in the family Araneidae, thousands of orb weavers, web building is a feat of engineering.

If you're in the Southeastern United States in the summer or fall, you might walk right into the web of the golden silk orb weaver. These webs stretch up to six feet across! A female spider constructs the web with silk that looks golden in sunlight.

She makes a hub near the top to patiently wait for lunch or dinner. When an insect flies in, she injects it with venom and wraps it up in to-go silk for later, taking it back to her hub to discourage other sneaky little spiders ("kleptoparasites") from stealing her meal. Her web is semi-permanent, meaning she repairs part of it each day rather than starting from scratch.

For the triangle weaver spider, native to the US and Canada, physics rules. Think, medieval catapult! This spider doesn't have venom, but it has a special trick to overtake prey.

Walking backwards, it pulls back the web's anchor line, and – waits, maybe for hours. When an insect lands in the web, the spider cuts the silk and is propelled like a rock from a slingshot, faster than any space shuttle. The prey gets tangled up in the loosened web. (The process might be repeated many times.) This spider is the only known animal besides humans to use "external power amplification"!

PATIENCE: *Waiting until later for what you want now*

Orb weavers have mastered the fine art of waiting for dinner.

