

Swirls and Spirals

A spiral is a shape that curves and gradually widens around a central point. There are many examples of spirals in nature, as shown in the book *Swirl by Swirl*. The author, Joyce Sidman, talks about the following examples of spirals:



A snuggling shape - including when animals such as a bull snake, a harvest mouse, a chipmunk or a woodchuck sleep curled up in a ball for warmth.



A strong shape - where outside curves can protect animals such as the millipede, the land snail, and in sheeps' horns.



A growing shape - going from small to big, such as the lady fern. It emerges from the soil as a fiddlehead and then unwraps itself as it gets bigger.



A clever shape - seen in butterfly proboscis (neatly tucked away when not in use), and spiders' webs.

You can see spirals in things as small as flowers and ocean waves, and as vast as tidal whirlpools, tornados and even our galaxy. Spirals can even follow a mathematical rule, called the Fibonacci sequence, where a specific order of numbers following a set and understood pattern "explains", or can measure out, the dimensions of the spiral.

Extension

Why not head outside and see if you can find some spirals? Spirals might be a slightly more difficult pattern to spot in nature than some, but they are there. In spring, there's a pretty good chance you'll be able to find some snails and fiddleheads even in your yard. What else is out there?



Spirals can be found in small flowers and vast galaxies.