



## Design is Everywhere

### Noticing Math in Nature

**Beginner:** Look closely at plants, flowers, and pinecones and show how, working from the middle-outwards, many things in nature are made up of small pieces that get bigger and bigger to form the whole object.

**[Tip]:** The petals closest to the middle of a rose are smaller than the next layer, getting bigger and bigger to make the whole flower.

**Intermediate:** Explore outside and encourage your child to point out where they see interesting patterns in nature.

**[Tip]:** Make a game of collecting items and comparing the different patterns that you see!

**Experienced:** Explore images of conch shells, dragonfly wings, sunflowers, and even our galaxy, to show how the same spiral pattern shows up again and again in nature and can be modeled mathematically.

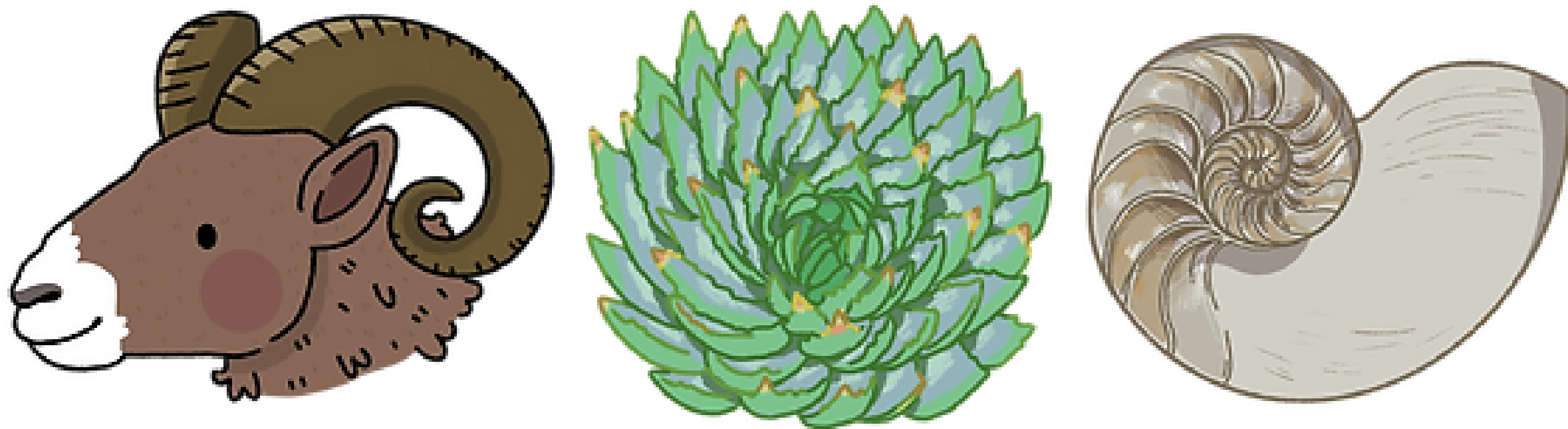
**[Tip]:** Scroll below to view the resource on the Fibonacci Sequence.

**Why is this important?** Exploring math that exists around us is a fun way to make connections between numbers and the real world.

**Reference:** Dickmann, N. (2018). Math in nature (Ser. The amazing world of math). Hungry Tomato

# Sequence Fibonacci

The Fibonacci sequence is a spiral pattern found throughout nature, in plants, animals, the human body, DNA, and even the solar system!



Look for spirals in the world around you...

They appear in all sorts of places, like in a ram's horn, spiral aloe, and nautilus shells!