

Snake Skeletons in Motion!

Have you ever seen a snake slither? Let's look at some snakes in motion! Check out the pictures below:

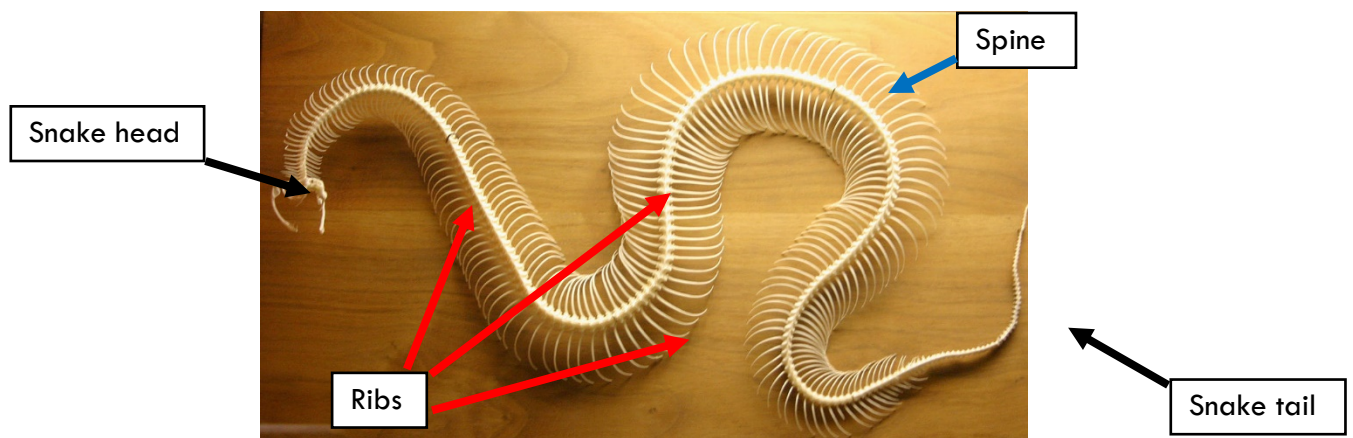


Do you notice anything in common with the snakes in the video or in the pictures? **Trace your finger along the snake to feel what shapes they make.**

Snakes move their body in an "S" shape to go forwards, backwards, and sideways. Moving in an "S" pattern helps snakes slide over the ground and even climb trees!

How do they move like this?

Snakes have strong muscles, grippy belly scales (like the tread on the bottom of your shoe), and very **flexible** bodies! Their bodies are so flexible because they have a long **spine** with many **vertebrae** going from head to tail, and many **ribs** that run almost the whole length of their body. If you feel your own spine, you'll feel bumps and dips. The bumps are your vertebrae. If you put your hand on your side to feel your ribs, you can feel the bottom of your ribcage stops around your stomach. But snakes have ribs going almost all along their body!



How does a long spine with many ribs make snakes so flexible? What do you think?

Let's make a snake skeleton to find out!

Materials:

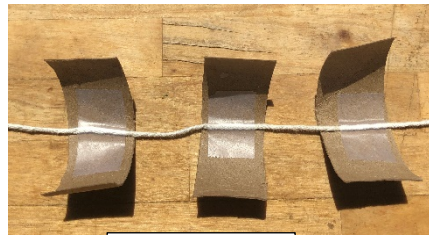
- Toilet paper or paper towel tubes
- String or yarn
- Tape, glue, hot glue, or stapler (with adult supervision or help!)
- Scissors
- Markers/colored pencils/crayons and paper

Instructions:

1. Optional: Decorate your toilet paper or paper towel tubes: these are part of your snake!
2. Cut toilet paper or paper towel tubes into rings at least 1 inch wide.
3. Cut the rings in half, so that you have two semicircles.
4. Cut string as long as you want, but at least long enough to fit all of your half-rings.
5. Lay out all of your half-rings in a row with the underside facing up. Lay the string across all of the half-rings, and tape it to the half-ring. Space them close together—but not too close!
6. Leave some string at the end to hold on to, wiggle your snake in an “S” pattern as you pull it forward.



Steps 2 & 3



Step 5



Step 6

The rings represent the **snake's ribs**, and the string represents the **snake's spine**! Your snake can move in an “S” pattern because all of the rings (ribs) allows it to be very flexible. If your snake didn't have so many ribs, and was instead represented by a single long paper towel tube, would it be as flexible? Could you move it in an “S” pattern in the same way?

Have a friend help you track your snake's movement: place your snake on a piece of paper and have your friend slowly move it in an “S” shape while you trace its motion with a marker, pencil, or crayon. Snakes make several different “S” patterns to move. Check out this chart of snake motion for ideas to try.

SNAKE MOVEMENT



Concertina



Serpentine



Sidewinding



Caterpillar (Rectilinear)

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