



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at [www.projectexploration.org/stemathome](http://www.projectexploration.org/stemathome).

## In this activity, you will:

learn more about the function of the human spine.



## Supplies Required:

- Empty egg carton
- 2 pipe cleaners
- 2 pieces of construction paper
- Scissors

## Video

Learn more about your bones! <https://tinyurl.com/y57czedk>

## Overview

Your spine is the part of your body that helps hold you upright. It is a very important part of our anatomy and is what designates us as vertebrates. Vertebrates have backbones, and this includes humans, birds, dogs, cats, etc. Invertebrates do not have backbones. This includes worms and insects. The spine starts at the skull and runs all the way down to your tailbone. It is made up of several different parts. Here are what the parts of our DIY spinal cord represent. The cups represent the vertebrae, which are discs of bone that protect the spinal cord. The construction paper represents the discs, which support the bones and allow movement of the spine. The pipe cleaner represents the spinal cord, which is a major nerve that transmits information from the body to the brain.



Team-Cartwright.com

## Instructions

1. Cut the top off an empty egg carton and discard it.
2. Cut the individual egg cups apart.
3. Poke a hole in one side of each egg cup, then poke a hole in the opposite side.
4. Take your construction paper and cut it into 12 circles, each approximately the same diameter as the egg cups.
5. Poke a hole in the center of each foam circle.
6. Take your pipe cleaner and thread an egg cup into it. Then add a foam circle. Then another egg cup. Continue the pattern.
7. When your pipe cleaner runs out, twist another one to the end to make the spine as long as you like.
8. Once your spine is the length you want gently bend over the ends of the pipe cleaners at each end to hold everything in place. You made a spine!

## Additional Resources

1. Learn more about the spinal cord: <https://tinyurl.com/y4jyscsc>
2. Sing along to the spine song: <https://tinyurl.com/yx642ykk>

## Share It Out

**Share on social media:** Take a photo of your model and share on social media. Explain the function of the spine and spinal cord with your family and friends. Use the hashtags:

#SpineModel  
#ProjectExploration  
#StemAtHome

For more activities like this one, go to [www.projectexploration.org/stemhome](http://www.projectexploration.org/stemhome). If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



Call or text us for help: 312-772-6634

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