

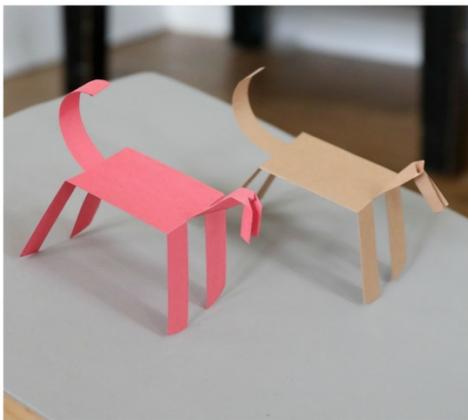


FLEMING COUNTY 4-H GOLDEN REINS HORSE CLUB

WALKING PAPER HORSE CHALLENGE!

It would have been the KY Derby this weekend so have a KY Derby of your own!!!!

<https://frugalfun4boys.com/paper-horse-that-walks/>



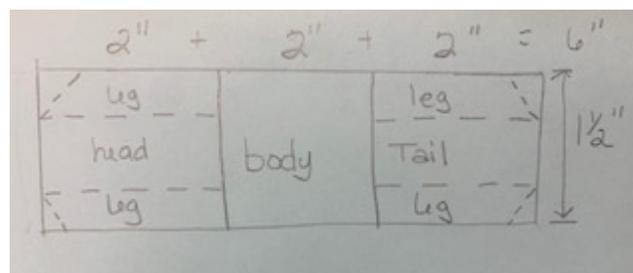
The project takes a little fiddling, but it's SO FUN when you get your horse walking! Amazing! This project is best for middle school and up, but younger kids will LOVE watching it! Most younger kids will probably not be able to cut/fold it as precisely as it needs in order for it to work. However, it's perfect for a parent or older sibling to make together with a younger child.

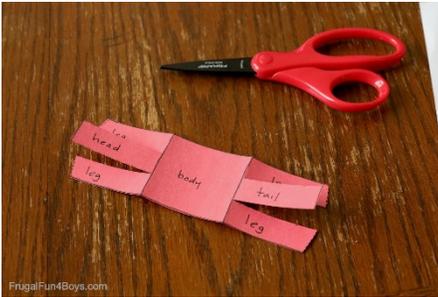
This project has some really great PHYSICS LEARNING to it! I'll explain more further down. Definitely a great STEM project.

Make a Paper Horse that WALKS!



Use a ruler to draw the shape below. Start with a rectangle that is 6 inches by 1 ½ inches. Then divide it up as shown. Cut around the perimeter of the rectangle. Then cut the DOTTED LINES inside the rectangle. Be sure to cut a small diagonal line of the horses "hooves".





I labeled the legs, head, body, and tail for your benefit, but you don't need to do that, obviously!

Curl the tail (I know horses tails aren't curled like that, but it seems to make it balance better) and fold the head.

Here's a photo that shows the shape of the feet:



Now it's time to make your horse walk!

Here's how it works:

The paper horse walks by rocking back and forth on its curved feet. As the horse rocks from one foot to the other, gravity pulls the feet down the incline.

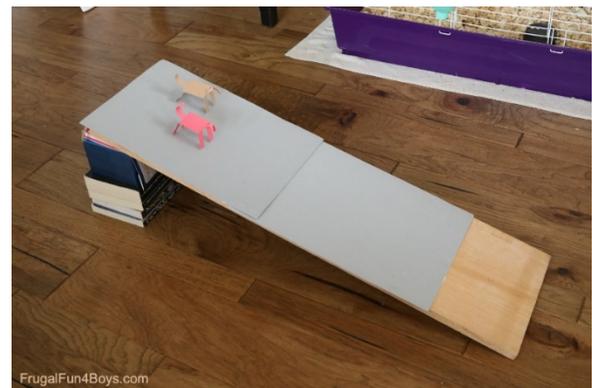
So it rocks to the right, and the left foot (which is no longer touching the board) moves forward. It rocks to the left, and the right foot moves forward. It's pretty cool to watch!

The surface that the horse walks on is important! It needs to have enough friction, but not too much.

We first tried a large picture book with one end propped up. The horse just slid right down it, no matter the height of the slope!

Then we tried putting a piece of felt on top of the book. This increased the friction, and the horse did a little bit of the correct motion. However, it was too much friction.

So then we tried a sheet of craft foam, and it was just right!



You can see our setup below. Your ramp doesn't need to be this long! A shorter ramp will still allow the horse to do plenty of walking. We just build a long ramp in order to get good photos and video for you.

HAVE FUN WITH YOUR FAMILY AND SET UP YOUR OWN KY DERBY!!!!

Text or E-mail Photos of your finished horses and/or videos of your family derby to staci.newsom@uky.edu!

These will be featured on the Fleming County 4-H Facebook Page!

You can also send them via Facebook Messenger to the Fleming County 4-H Facebook Page

