Sliding into Fun

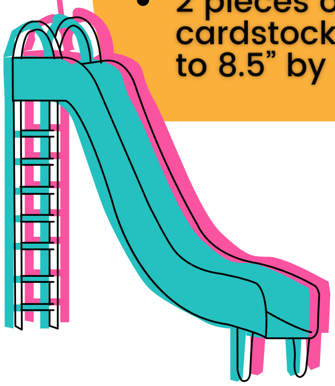
Slides are so fun! Slides can be long or short, and have twists or bumps. With this activity you will think about how a pom pom travels down slides of different heights and lengths. You will also explore slides with different types of twists and turns.

Science Concept

With this activity, we are going to be talking about potential and kinetic energy. Potential energy is the energy an object has when placed in a specific relation to another object. But what does this mean? Imagine you are rolling a ball down a slide. When the ball is at the top of the slide, it has potential energy. As soon as the ball starts to move, the potential energy is changed (converted) into kinetic energy. Kinetic energy is the type of energy created by motion. So, the taller the slide, the higher the ball is off the ground, right? A higher ball has more potential energy. More potential energy can be changed (converted) into a greater amount of kinetic energy and this means the ball can travel farther.

Materials

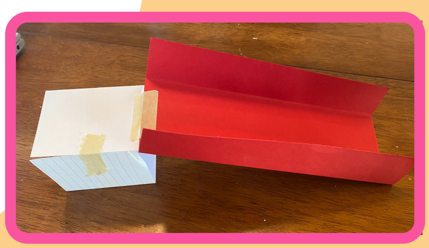
- 1 pom pom
- 3 notecards
- Tape
- 2 pieces of cardstock cut to 8.5” by 5.5”



Step 1 Fold each of the three notecards in half. Arrange the notecards so that they form an open square box and tape them together as shown.

Step 2 Fold the sides of the cardstock (lengthwise) so that you create 1 inch flaps.

Step 3 Lightly attach your cardstock slide to your paper cube. Explore how the pom pom rolls down your slide.
How far does the pom pom travel?

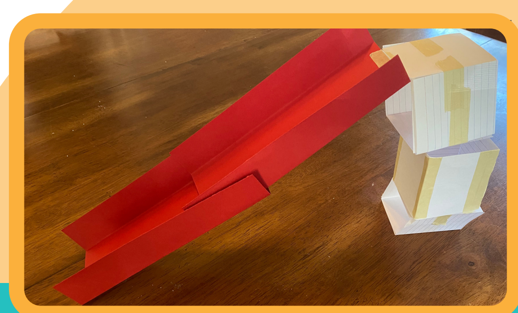


Step 4 Working with a friend, place your cardstock slide on a stack of two paper cubes. Again, roll the pom pom down this slide. How far does the pom pom travel now?

Step 5 **What would happen if we added more paper cubes to our slide?**

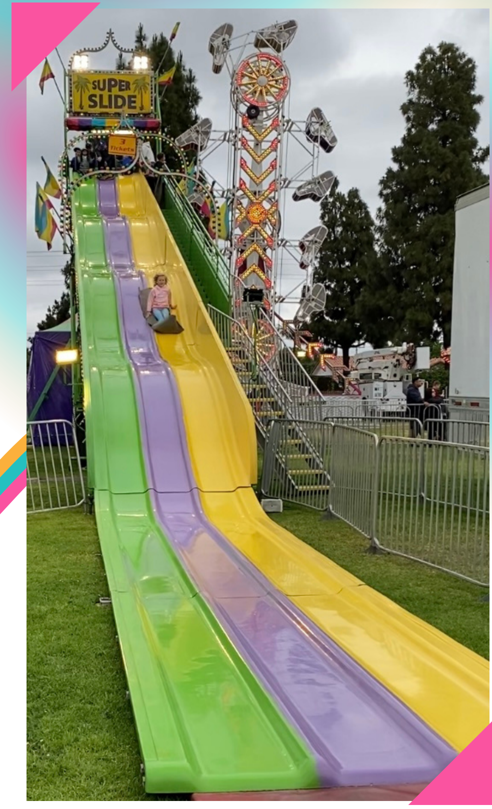
For this extension combine your cardstock slides to make sure the slide can reach the table.

Stack three (or even four!) paper cubes on top of one another and see how this affects the way the pom pom travels down the slide.



This activity is intended for use by adults and children who can read, follow directions and warnings. Adult supervision advised.

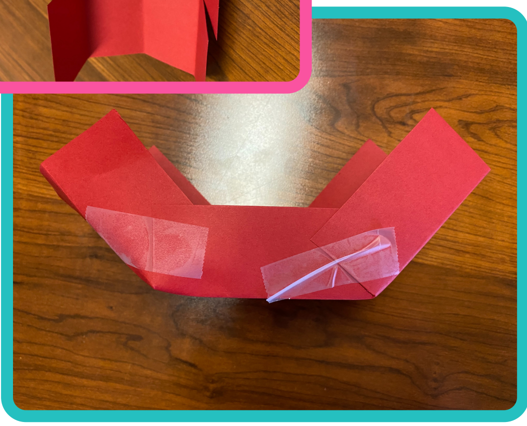
Extension Time! Super Slides



Sometimes carnivals and waterparks have super slides like the one shown. The super slide in our picture has several bumps one can travel over on their way down.

Let's think about how to make a curve (or even a bump) in our slide.

Step 1 Cut each of your cardstock flaps as shown. Make sure you cut along the same place on each flap.



Step 2 As you place the cut sections over one another and tape into place, you will create a curve along the cardstock.

As you make more curves with your cardstock (for this you might need extra sheets as well), think about how they would look when taped together. For example, can you make a slide like the one pictured here?
Once you make your slide, test it with your pom pom.

How far does the pom pom travel?

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