

Sciencenter At-Home: Ramp Painting

Paint tracks with balls on ramps!

In this activity, learners will observe the patterns they make as they roll balls down a ramp.

Materials:

- Paint
- Paper
- Balls of different size and textures
- Bowls
- A long flat item to use as a ramp (cardboard, shelf, baking sheet, etc.)



Try this:

Set up:

Cover one side of the ramp in paper. Pour just enough paint to cover the bottom of the bowl.

Work with your child to set up the ramp. Make sure that the area at the bottom of the ramp is protected from paint.

Activity:

Have your child dip a ball into the paint and roll it down the ramp.

Make observations about the patterns you make! Prompt your child with questions like:

- What did you notice about how the balls rolled down the ramp?
- What shapes do you see?
- Do you notice any spots that look like others?

Repeat the activity with different colors, different textured balls or different ramp inclines!





Change it up!

Depending on the age and need of your child, this activity may look different. This is an open-ended and exploratory activity. There is no wrong way to do it!

Here are some activity extensions and adaptations:

- Try placing your ramp at different heights. Compare the patterns made when the ball is moving fast vs. when it is moving slowly.
- Demonstrate the difference between items that roll (balls, pinecones, toy cars) and items that slide (blocks, spoons, plastic animals). Do the marks they leave look different?
- Race the balls! Do some of them go down the ramp faster? Do they make the same line?

Science process skills

This activity focuses on building the skills to participate in science over the science content itself. This activity highlights skills like making observations and experimenting as the participants explore ramps.

We observe objects and events using our senses. While observations made only with the senses are qualitative, they help us gather information and learn about the world. Building observations skills help children expand on other science process skills like categorizing and making predictions. When guiding your child through this activity, encourage them to watch the path of the ball as it rolls down the ramp. Ask them what they noticed as the ball moved. Can they see any traces that the ball left?

Experimenting or exploring allows us to test predictions to see an outcome or how we can find an answer to our question. When guiding your child through this activity, encourage them to talk about the steps of making a trail with the ball. How did they get the paint onto the ball? Where do they put the ball to make it go?

This activity exists in many versions. This adaptation was inspired by Exploring: Ramp Painting from the Collaborative for Early Science Learning copyright 2021, Sciencenter, Ithaca NY. Retrieved from: http://www.sciencenter.org/perch/resources/exploring-1.pdf