

**Description:** Children will explore how different balls roll down ramps by dipping them in paint and noticing the patterns they make.

## Materials

- Ramps
- Different textured balls
- Butcher paper
- Tape
- Bowls
- Paint

## Set Up

- Build different ramps of varying heights and line them with butcher paper.
- Add paint to the bowls.
- Let the children put the balls in the paint and then roll them down the ramps.

## Head Start Early Learning Outcome Framework Alignment

- **Goal P-SCI 1.** Child observes and describes observable phenomena (objects, materials, organisms, and events).

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Uses the five senses to observe objects, materials, organisms, and events. Provides simple verbal or signed descriptions. With adult support, represents observable phenomena, such as draws a picture.	Makes increasingly complex observations of objects, materials, organisms, and events. Provides greater detail in descriptions. Represents observable phenomena in more complex ways, such as pictures that include more detail.	<ul style="list-style-type: none"> <li>• Identifies the five senses (smell, touch, sight, sound, taste) and uses them to make observations.</li> <li>• Uses observational tools to extend the five senses, such as a magnifying glass, microscope, binoculars, or stethoscope.</li> <li>• Describes observable phenomena using adjectives and labels, such as lemons taste sour and play dough feels sticky.</li> <li>• Represents observable phenomena with pictures, diagrams, and 3-D models.</li> </ul>

● **Goal P-SCI 4.** Child asks a question, gathers information, and makes predictions.

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Asks simple questions. Uses adults as primary resources to gather information about questions. With adult support and modeling, makes simple predictions, such as "I think that the golf ball will be heavier than the ping pong ball."	Asks more complex questions. Uses other sources besides adults to gather information, such as books, or other experts. Uses background knowledge and experiences to make predictions.	<ul style="list-style-type: none"> <li>Asks questions that can be answered through an investigation, such as "What do plants need to grow?" or "What countries do the children in our class come from?"</li> <li>Gathers information about a question by looking at books or discussing prior knowledge and observations.</li> <li>Makes predictions and brainstorms solutions based on background knowledge and experiences, such as "I think that plants need water to grow." or "I think adding yellow paint to purple will make brown."</li> </ul>

These images have been adapted from: U.S. Department of Health and Human Services, Administration for Children and Families. "Head Start Early Learning Outcome Framework." *Head Start Early Learning Outcome Framework*, Office of Head Start. <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/elof-ohs-framework.pdf>

### Suggestions for Teaching

Depending on the age of the children, this activity will look different. This is an open ended and exploratory activity, there is no wrong way to do it! Keeping that in mind, here are some suggestions:

Here are some activity extensions and adaptations:

- Try dipping small cars in paint and then rolling them down the ramp. Compare the different patterns the tires make.
- Go on a walk outside and collect things to roll down the ramps, such as pinecones, acorns, etc.
- Try dipping the balls in a variety of paint colors before rolling it down the ramps.

**Description:** Children will explore how water moves on waxed paper. Also by using different tools and different colored water, they can make many different types of observations.

## Materials

- Containers for water
- Watercolor
- Eye droppers
- Toothpicks
- Waxed paper
- Straws
- Craft sticks

## Set Up

- Pre-cut pieces of waxed paper
- Have the children choose a piece of waxed paper and then use the eyedroppers to put some water on the paper.
- Encourage children to explore making drops and experimenting with how they move by using, toothpicks, droppers, or straws.

## Head Start Early Learning Outcome Framework Alignment

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DEVELOPMENTAL PROGRESSION		INDICATORS
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● **Goal P-MATH 1.** Child knows number names and the count sequence.

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Says or signs some number words in sequence (up to 10), starting with one. Understands that counting words are separate words, such as "one," "two," "three" versus "onetwothree".	Says or signs more number words in sequence.	<ul style="list-style-type: none"><li>Counts verbally or signs to at least 20 by ones.</li></ul>

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### Suggestions for Teaching

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Here are some activity extensions and adaptations:

- Make red, yellow, and blue water and challenge them to combine the droplets to make secondary colors.
- Use a dark colored crayon to draw a maze on the waxed paper and invite the children to try and get a single drop through the maze using different tools.
- Add lots of different drops of water to the waxed paper and see if then can combine them all to form one large droplet.

**Description:** Children will line a container with paper, put a block in with some paint, close the lid and shake, shake, shake!

## Materials

- Containers that have lids (coffee cans or oatmeal containers are ideal)
- Paper to line the containers
- Blocks that fit in the container
- Washable paint

## Set Up

- Allow the children to choose a container and line it with paper.
- Have them place a block or two inside the container. Add a squirt of paint.
- Close the lid and let them shake the blocks to explore the noise and patterns of the paint on the paper.

## Head Start Early Learning Outcome Framework Alignment

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DEVELOPMENTAL PROGRESSION		INDICATORS
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Uses the five senses to observe objects, materials, organisms, and events. Provides simple verbal or signed descriptions. With adult support, represents observable phenomena, such as draws a picture.	Makes increasingly complex observations of objects, materials, organisms, and events. Provides greater detail in descriptions. Represents observable phenomena in more complex ways, such as pictures that include more detail.	<ul style="list-style-type: none"> <li>• Identifies the five senses (smell, touch, sight, sound, taste) and uses them to make observations.</li> <li>• Uses observational tools to extend the five senses, such as a magnifying glass, microscope, binoculars, or stethoscope.</li> <li>• Describes observable phenomena using adjectives and labels, such as lemons taste sour and play dough feels sticky.</li> <li>• Represents observable phenomena with pictures, diagrams, and 3-D models.</li> </ul>

● **Goal P-SCI 2.** Child engages in scientific talk.

DEVELOPMENTAL PROGRESSION		INDICATORS
<b>36 to 48 Months</b>	<b>48 to 60 Months</b>	<b>By 60 Months</b>
Begins to use scientific vocabulary words with modeling and support from an adult. Sometimes repeats new words offered by adults.	Uses a greater number of scientific vocabulary words. Repeats new words offered by adults and may ask questions about unfamiliar words.	
		<ul style="list-style-type: none"> <li>• Uses scientific practice words or signs, such as observe, describe, compare, contrast, question, predict, experiment, reflect, cooperate, or measure.</li> <li>• Uses scientific content words when investigating and describing observable phenomena, such as parts of a plant, animal, or object.</li> </ul>

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Here are some activity extensions and adaptations:

- Explore using different sized blocks and comparing the prints and noises that each size makes.
- Experiment with using different combinations of paint colors and seeing what kids of patterns are created.
- Try going on walk outside and collecting different nature items to use instead of blocks.

### Credits and rights

Developed by the Sciencenter for the Collaborative for Early Science Learning.

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