



Different Kinds of Ramps

Explore ramps with different surfaces, both indoors and outdoors.

Day 1 (20–30 minutes)

VIDEO

Homemade Hill

Watch children play with ramps that are rough and smooth.



What Your Child Will Learn

Science skills: Observing, comparing, and predicting how objects roll or slide on different surfaces

Science idea: The surface of a ramp affects how an object rolls or slides down it.

Vocabulary words to practice: ramp, roll, surface, slide, rough, fuzzy, smooth, predict

What You Need

Video: *Homemade Hill* (1½ minutes)

What to Do

Sit together so you can talk about the video while you watch.

1. SAY: Let's watch children play with **ramps** that are **rough** and **smooth**.

2. After you watch together, ASK:

- Do you think the hills the children made are **ramps**? What makes them **ramps**?
- What do you think is different about the **surface** of the cardboard and the **surface** of the cushion?
- Which hill was really good for **sliding**? Why do you think it was better?

ACTIVITY

Ramp Race!

What happens when you race two balls down a ramp? Which one goes the farthest?



What Your Child Will Learn

Science skills: Observing, comparing, and predicting how objects roll or slide on different surfaces

Science idea: The surface of a ramp affects how an object rolls or slides down it.

Vocabulary words to practice: ramp, roll, surface, slide, rough, fuzzy, smooth, predict

What You Need

- a large piece of cardboard
- a box, block, or books to prop up the ramp
- a towel, blanket, or sweater
- two identical balls
- a piece of paper to make a chart
- marker

Get Ready

1. Set up a **ramp** by leaning one end of the cardboard against an object like a block or box.
2. Place a towel, blanket, or sweater over half the cardboard, as shown. One side of the **ramp** is **smooth**, the other is **rough** or **fuzzy**.
3. Make a chart, as shown.

WHO WON THE RACE?	
ROUGH ~~~~~	SMOOTH _____
1	
2	
3	

What to Do

1. SAY: Let's have a race. We will **roll** balls down a **ramp** with two different **surfaces**. Let's feel the two **surfaces** of the **ramp**. What do they feel like?
2. Have your child hold the two balls at the top of the **ramp**, one on each **surface**. SAY: Let the balls **roll** until they stop! The ball that **rolls** the farthest wins the race. Who do you think will win? Ready, set, GO!
3. Repeat the race three times and mark the winner on the chart with an "X."

	ROUGH ~~~~~	SMOOTH
1		X
2		X
3		X



Ask questions and Talk About Ideas

Make a chart and discuss. To learn, children need to review what they did.

Talk About What You Learned

Look at the chart together. ASK:

- Which column has the most "Xs?"
- Did the **smooth surface** or the **rough surface** make the ball **roll** farther?
- Why do you think one **surface** is better for **rolling** things farther?

Keep Learning!

Use different materials to create different **ramp surfaces** and race more balls.

1. Find things around the house: try cloth, bubble wrap, aluminum foil, or a wrinkled piece of paper.
2. ASK:
 - What do you **predict** (think) will happen when we race the balls down these two **surfaces**?
 - What happened? Is that what you **predicted**?



Explore More!

Add new materials to explore in a different way.

Day 2 (20–30 minutes)

VIDEO

Down They Go

Watch children roll things down a hill and a sidewalk.



What Your Child Will Learn

Science skills: Observing, comparing, and predicting how objects roll or slide on different surfaces

Science idea: The surface of a ramp affects how an object rolls or slides down it.

Vocabulary words to practice: roll, surface

What You Need

Video: *Down They Go* (1½ minutes)

What to Do

1. SAY: Let's watch a video of children **rolling** different things down a hill and a sidewalk.
2. After you watch together, ASK:
 - What did the children **roll** down the hill?
 - What do you think **rolled** easily? What didn't?
 - Why do you think some things **rolled** and others didn't?
 - What happened when they tried **rolling** something on the sidewalk?
 - How was the sidewalk **surface** different from the grassy hill?



Ask Questions and Talk About Ideas

Ask questions to help your child think more about the activity. Start a question by asking "What do you think....?"

ACTIVITY

Ramps Outside

Go outside. See how a ball rolls on different surfaces.



What Your Child Will Learn

Science skills: Observing, comparing, and predicting how objects roll or slide on different surfaces

Science idea: The surface of a ramp affects how an object rolls or slides down it.

Vocabulary words to practice: ramp, roll, slide, surface, slant

What You Need

- balls
- video camera on your phone

What to Do

1. Go outside and look for different **slanted surfaces** to roll a ball on.



Play and Explore Together

Notice what excites your child — and get excited too!

2. **Roll** the ball down different slanted **surfaces** and see what happens.
3. Take some videos of the **rolling** balls.

Talk About What You Learned

Watch the videos together. ASK:

- Do you think the ball **rolled** differently on the different **surfaces**? How?
- Remember when we **rolled** things down the **ramp** indoors? How is what we did today different?

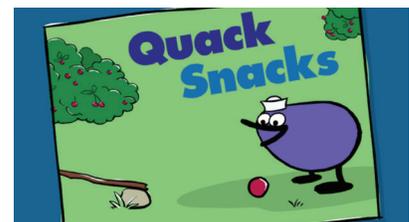


Ask Questions and Talk About Ideas

Make videos and discuss. To learn, children need to reflect (think about) what they did

Online Game (Optional)

Go to the *PEEP and the Big Wide World* website (peepandthebigwideworld.com) and play a game about ramps called *Quack's Snacks*. Use ramps to guide a berry into Quack's mouth.



Play, Talk, and Explore More!

During the week, take a minute or two come up with your own ideas for exploring how things **roll** or **slide** down different surfaces. The more you play, talk, and explore more together, the more you help your child think, learn, and grow.



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