



Rolling Up, Down, and Around

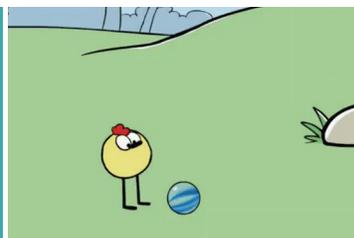
Make a ball go up and down a ramp; then make a ramp with turns.

Day 1 (20–30 minutes)

VIDEO

Marble Mover

Watch Peep and his friends try to roll a marble up a hill. It's harder than you think!



What Your Child Will Learn

Science skills: Testing, observing, and experimenting with ramps; describing and comparing them; sharing ideas

Science idea: It is easier to roll something down a ramp than to roll it up a ramp.

Vocabulary words to practice: roll, marble

What You Need

Video: *Marble Mover* (9 minutes)

What to Do

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

1. SAY: *I wonder why it was so hard for Peep and Quack to get the marble up the hill.*



Ask Questions and Talk About Ideas

Talk out loud about your ideas so your child can learn from listening to you. Start by saying “I wonder...,” “I think...,” and “What if...?”

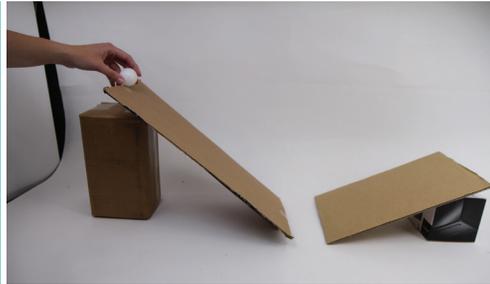
2. After you watch together, ASK:

- Why do you think it was so hard for Peep and Quack to get the **marble** up the hill?
- How did Chirp finally get it up the hill?

ACTIVITY

Up and Down

Can you make a ball go down one ramp and up another?



What Your Child Will Learn

Science skills: Testing, observing, and experimenting with ramps; describing and comparing them; sharing ideas

Science idea: It is easier to roll something down a ramp than to roll it up a ramp.

Vocabulary words to practice: roll, ramp, steep, less steep

What You Need

- small, light ball
- two large pieces of cardboard
- two boxes, blocks, or books to prop up the ramps
- video camera on your phone

What to Do

1. Set up two **ramps** facing each other. Make one **ramp steeper** than the other. Leave some space between them, as shown in the picture.
2. SAY: *Let's see if we can make a ball go DOWN one **ramp** and UP the other.*
3. Send the ball down the **steeper ramp**. What happens?
4. Then send the ball down the **less steep** ramp. What happens?
5. Take some videos of the ball **rolling** down one **ramp** and up the other.



Play and Explore Together

Your attention and encouragement make a big difference!

Talk About What You Learned

Watch the videos together. ASK: *What did the balls do on the ramps?*



Ask Questions and Talk About Ideas

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

Keep Learning!

What else can you do with these two **ramps**? Try making the **ramps steeper** or **less steep**. Try moving them farther apart.



Explore More!

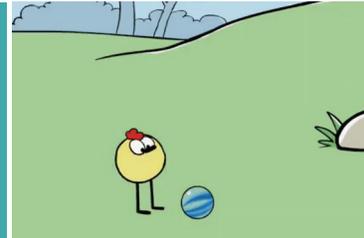
Children learn new things each time they explore.

Day 2 (20–30 minutes)

VIDEO

Marble Mover

Peep and Quack discover how hard it can be to move a marble up a hill.



What Your Child Will Learn

Science skills: Testing, observing, and experimenting with ramps; describing and comparing them; sharing ideas

Science idea: It is easier to roll something down a ramp than to roll it up a ramp.

Vocabulary words to practice: roll, marble

What You Need

Video: *Marble Mover* (9 minutes)

What to Do

Watch the video again to make new discoveries. Talk about what you notice this time.



Ask Questions and Talk About Ideas

Take turns listening and speaking.

ACTIVITY

Ramps and Turns

Can you make a ramp with twists and turns?



What Your Child Will Learn

Science skills: Testing, observing, and experimenting with ramps; describing and comparing them; sharing ideas

Science idea: When a ball hits something, it will stop or slow down. It might change direction.

Vocabulary words to practice: test, change, direction, roll, ramp

What You Need

- a large piece of cardboard
- cardboard
- a box, block, or books to prop up the ramp
- box
- newspaper
- tape
- scissors
- a small light ball
- video on your phone

Get Ready

1. Set up a **ramp** by leaning one end of the cardboard against an object like a box or block.
2. Roll up a piece of newspaper to make a tube. Tape it so it stays rolled.
3. Make a second newspaper roll.
4. SAY: *We are going to make a **rolling** ball turn and **change direction**!*



Play and Explore Together

Your attention and encouragement make a big difference!

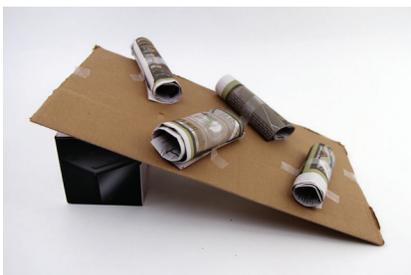
What to Do

1. Tape one newspaper roll at a **slant** near the top of the cardboard. Have your child **roll** the ball down the side of the newspaper.
2. Hand your child the second newspaper roll and ASK: *Where could we put this so that the ball **rolls** down and turns in the other **direction**?*
3. **Test** it out by **rolling** a ball down the **ramp**. What happens? You may need to **change** the position of the newspaper rolls to get the ball to turn.



Ask Questions and Talk About Ideas

Talk out loud about your ideas so your child can learn from listening to you. Start by saying “I wonder...,” “I think...,” and “What if...?”



4. Take some videos of the rolling ball.
5. Watch the videos together and ASK: *Can you count how many turns the ball made?*

Keep Learning!

Make a **ramp** with more turns. Cut the newspaper rolls in half to make four shorter rolls. Help your child set up the four rolls and tape them to the cardboard. Each time you add a roll, **test** how a ball **rolls** down it before adding another. You may need to **change** the positions of the newspaper rolls.

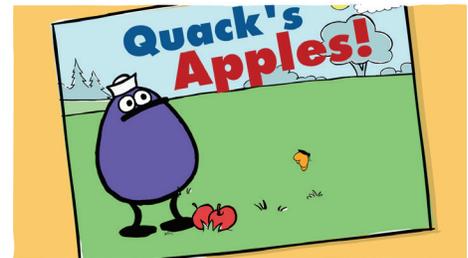


Explore More!

Add new materials to explore in a different way.

Optional Online Game (Optional)

Go to the *PEEP and the Big Wide World* website (peepandthebigwideworld.com) and play a game about ramps called *Quack's Apples*. Help Quack roll apples down a hill.



Play, Talk, and Explore More!

Congratulations! You've completed a month of science activities about **ramps** and **movement**. Look for other opportunities to keep exploring **ramps** together. The more you play, talk, and explore together, the more you help your child think, learn, and grow.



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