

PUSH, SLIDE, BOUNCE

ACTIVITY TO DO AT HOME



USE DIFFERENT-STRENGTH PUSHES PLUS COLLISIONS TO MOVE AN OBJECT WHERE YOU WANT IT TO GO.

How does the direction of the lid change when it bounces off the box?

TIME 15 minutes

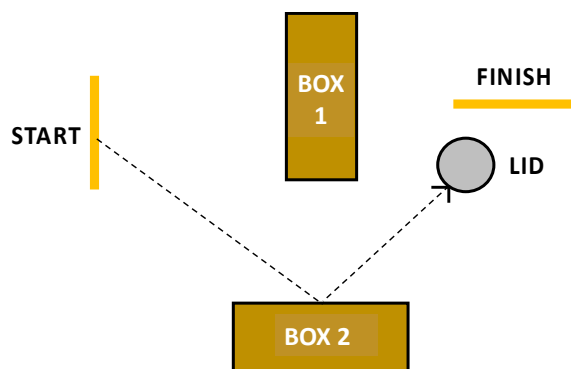
MATERIALS

- Metal canning lids—wide mouth if possible—or metal bottle tops, plastic lids, or even balls, if space allows
- Construction or plain paper (8.5 × 11 inches)
- Markers
- Tape
- Boxes (or blocks, books, etc.) to use as obstacles on the “mini-golf” course, heavy enough for a lid to bounce off them

DIRECTIONS

1 SET UP

- Find an area to play in. The area could be a big tabletop or the center of the room. If playing on the floor, outline the area in masking tape.
- Set up a mini-golf course as shown. Use tape, markers, and construction paper to mark the start and finish lines. Set up two boxes or other objects as obstacles.
- Test the lids or other sliding objects to make sure they slide smoothly.
- Test the distance between start, the boxes, and finish to make sure the distances will work for game play.



2 GOAL

Your child will **investigate** changing the direction of an object with a bounce. They will **observe** and **compare** the pushes needed to reach a goal.



3

EXPLORE

Talk about the Push, Slide, Bounce course with your child. Place a lid on the start line. Explain that your child needs to use pushes to move the lid from start to finish. Your child will **notice** that a box blocks the path from the start to the finish. How many pushes will your child use?

4

EXPLORE

Your child can **make a plan**. What kinds of pushes can they use? Strong pushes? Weak pushes? What direction to push? What about bouncing the lid off a box? Talk with your child about **what may happen** when the lid hits the box.

5

EXPLORE

Your child can **test out their plan**. Your child can use as many pushes as needed to reach the finish. What does your child **notice** about each push? Help your child **keep track** of the number of pushes.

6

EXPLORE

When your child reaches the finish line, they can **share ideas** about what happened. Which kinds of pushes worked best? How did your child bounce the lid off a box?

7

EXPLORE

Play another round. What can your child do to use fewer pushes this time? Your child can **make a new plan** and **try it out!**

8

SHARE

Encourage your child to **share what happened** when the lid bounced off a box. Your child can describe the path that the lid moved from start to finish.

9

MORE WAYS TO PLAY

You and your child can change the layout of the course. What if you move the boxes? What if you add another box? What if you move the start or the finish? How many pushes, slides, and bounces will you need?



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