Roll, slide or stay? A ramp test

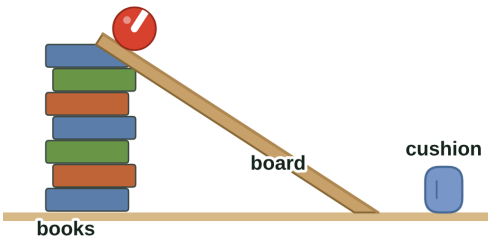
Names: Class: Date:

Work with a partner. Your teacher will set up the slope and read the steps with you.

PART 1 Will it roll, slide or stay still?

Aim: To predict how five things will move down a slope, then test them.

You need: A board about 1 m long, books or a chair to hold up one end, a cushion, a ball, a wooden block, a cardboard tube, a plastic egg and one more thing you choose.



> **Safety.** Let things go on the floor, away from faces and windows. Stand beside the slope. Use a taped-shut plastic egg and no marbles. Pick up everything after, so no one trips.

1. Your teacher props up one end of the board to make a steep slope, holds it steady and puts the cushion at the foot.
2. Before each test, show with your hands what you think the thing will do. Then circle it under I think it will.
3. Hold the thing at the top of the slope and let it go. Don't push it.
4. Circle what it did under It did.
5. Did they match? Circle yes or no.

Thing	I think it will	It did	Same?
Ball	roll · slide · stay still	roll · slide · stay still	yes no
Block	roll · slide · stay still	roll · slide · stay still	yes no
Tube on its side	roll · slide · stay still	roll · slide · stay still	yes no
Plastic egg	roll · slide · stay still	roll · slide · stay still	yes no
My choice:	roll · slide · stay still	roll · slide · stay still	yes no

Which things rolled? What shape are they?

PART 2 How do they move?

Draw a line from each toy to the way it moves. One toy needs two lines.



Ball



Toy car



Block



Spinning top



Beanbag

rolls



slides



spins



bounces



Then stand up, with room all around you, and move like each one: roll your arms, slide your hands, turn slowly, and jump.

Draw something in your classroom that rolls, and something that slides.

It rolls

It slides

Answers (turn the page round). Part 1: these depend on your things and how steep the slope is; on a steep slope the ball, the tube on its side and the plastic egg roll (the egg in a curve), and a wooden block slides, or stays still if the slope is not steep enough. **Part 2:** ball, rolls and bounces; toy car, rolls; block, slides; spinning top, spins; beanbag, slides; the drawings vary.