SCIENCE

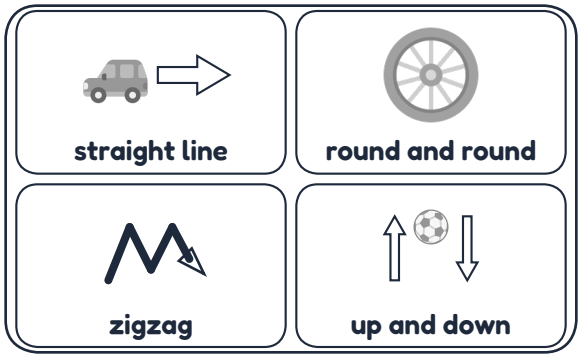
Motion and speed

Name _____ Date _____

I can describe how things move.

1 How it works

Things move in many ways: in a straight line, round and round, zigzag, back and forth, or up and down. They can move fast or slow. A rocket zooms; a snail creeps. To change how something moves, you need a push or a pull. A ramp can make a ball roll faster: the steeper the ramp, the faster it goes.



2 How does it move?

Use the words in the box.

straight | round and round | zigzag | up and down



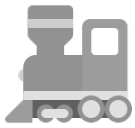
wheel
It turns as the car moves.

_____



yo-yo
It goes down and back.

_____



train
It runs along the track.

_____



bouncy ball
It bounces on the floor.

_____



snake
It slides side to side.

_____



rocket
It blasts off to the sky.

_____

How did I do? ☆ ☆ ☆

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SCIENCE · MOTION AND SPEED

Fast or slow

Name _____ Date _____

I can compare fast and slow motion.

1 Fast or slow? Circle one.



A rocket blasting off — fast — slow



A snail on a leaf — fast — slow



A jet in the sky — fast — slow



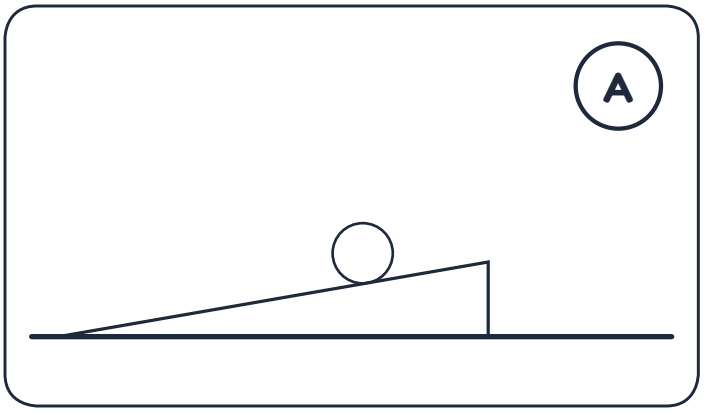
A turtle on the sand — fast — slow

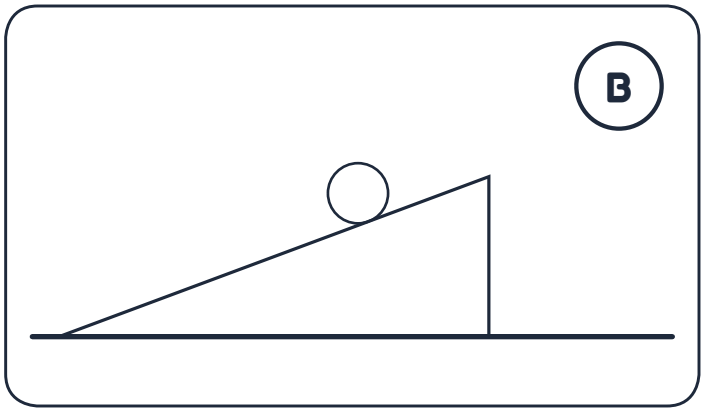


A horse in a race — fast — slow

2 Ramp race: which ball rolls farther?

Circle A or B.





Why? _____

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain how to change the way something moves.

1 Think about it

1. How can you make a toy car go faster? _____
2. How does a swing move? _____
3. What makes a rolling ball stop? _____
4. Name something that goes round and round. _____

2 True or false? Circle it.

1. A snail moves fast.	true	false
2. A wheel moves round and round.	true	false
3. A ball rolls faster down a steep ramp.	true	false
4. A push can change the way something moves.	true	false
5. Things can only move in a straight line.	true	false

3 Draw one thing that moves fast and one that moves slowly.

How did I do? ☆ ☆ ☆

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Try it: the ramp race

Name _____ Date _____

I can test how a ramp changes speed.

1 You need

- a board or a big book
- a toy car or a ball
- books to stack
- tape
- big steps to measure

2 What to do

1. Lean the board on 1 book to make a ramp.
2. Let the car roll down. Do not push it. Mark where it stops.
3. Add a second book, then a third, and roll the car each time.
4. Count how far it went each time.

3 I predict

Which ramp will send the car the farthest?

_____

_____

4 What I see

Ramp	How far it went	Fast or slow?
1 book		
2 books		
3 books		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: motion and speed

1 Page 1

Answers: 1) wheel: round and round; 2) yo-yo: up and down; 3) train: straight; 4) bouncy ball: up and down; 5) snake: zigzag; 6) rocket: straight.

2 Page 2

Speed: 1) fast; 2) slow; 3) fast; 4) slow; 5) fast.

Ramp race: B, because the steeper ramp makes the ball roll faster, so it goes farther.

3 Page 3

Think: 1) Push it harder or use a steeper ramp; 2) Back and forth; 3) Friction, or something in its way; 4) A wheel, a fan or a merry-go-round.

True or false: 1) false; 2) true; 3) true; 4) true; 5) false.

Drawing: answers will vary, for example a race car and a turtle.

4 Page 4: Try it!

The steeper the ramp, the faster the car rolls and the farther it goes. With 1 book the car rolls slowly and stops soon; with 3 books it zooms much farther. Gravity pulls the car down the ramp, and a steeper ramp lets it speed up more.

5 Teaching tip

Run a class ramp race with toy cars and let groups change only one thing each round, such as the height or the surface, so children see what makes the difference.

Safety: keep the ramp low and steady, and roll the car where no one will step on it.

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