

Move It, Map It

Watch an object move, draw its path, and compare fast and slow movement.

Name: _____ Date: _____

Part 1: Watch the Path

Classroom movement investigation

Your teacher will help you move a paper slider on four taped routes. Watch the slider first. Then draw the path it traveled in each box. Add arrows if they help show the movement.

1. Straight line



2. Zigzag



3. Round-and-round



4. Back-and-forth



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Part 2: Same Route, Different Speed

Listen as your teacher makes two trips on the **same** taped route. Watch both trips before you write. The path is where the object goes. Speed tells how quickly it goes.

START - - - - - ➔ FINISH

Trip	What speed did you observe?
1	
2	

3. What stayed the same? What changed?

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Answer Key and Teaching Notes

Materials

Supplied: student pages. Needed: one small paper slider or index-card square for each pair, masking tape, an open tabletop or floor area, and pencils.

Exact setup

Make four tape routes about 45 cm long or wide: (1) one straight strip, (2) a zigzag of three connected straight strips, (3) one round loop about 30 cm across, and (4) one straight strip for travel out and back. Make a separate 60 cm straight tape route for Part 2. Put START and FINISH at its ends. A teacher may move the slider, or partners may take turns moving it while the recorder watches.

Teaching script

Say: “Today we will notice two things: where an object goes and how quickly it goes. First, watch the paper slider travel on each taped route. Watch before you draw. Draw what you saw.” Move the slider on each route in order. For route 4, move from one end to the other and return along the same strip. Then say: “Now I will make two trips on this same route. Watch carefully. Write your own observation after both trips.” Make Trip 1 slowly and Trip 2 quickly, using the same start and finish. Do not name either speed for students or tell them what to write.

Observation method

While students work, use this checklist for each student: watched before recording; drew a path matching the observed route; recorded a speed for both trips; stated that the route/path stayed the same and speed changed. Ask, “Show me the path,” and “Tell me what speed means,” if clarification is needed. Do not point to a response or supply a word.

Answers and rubric

1. Straight: one unbent line, optionally with a direction arrow.
2. Zigzag: connected line segments with two or more turns.
3. Round-and-round: a loop, circle, or oval, optionally with a curved direction arrow.
4. Back-and-forth: travel along a line in one direction and return on that line; arrows in opposite directions are strong evidence.

Part 2 table: accept “slow” for Trip 1 and “fast” for Trip 2 when the demonstration is conducted as scripted. If the teacher reverses the demonstrations, accept the matching observations. 3. Sample response: “The route/path stayed the same. The speed changed. Trip 2 was faster.” Accept an equivalent oral or written response that distinguishes path from speed.