Shadow Model Lab

Use a model to show how light changes shadows.

2.1.e.i "developing and using models use models to demonstrate simple phenomena and natural processes"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Number the two light positions 1 and 2, then underline each shadow result that goes with a light position.

A Model of Shadows

1. A class wanted to show why a shadow changes size. They used a flashlight, a small toy, and a blank wall. The flashlight stood for the Sun. The toy stood for a person. The wall stood for a surface where a shadow can fall.

2. First, they held the flashlight low. The toy made a long shadow on the wall. Next, they held the flashlight high. The toy made a shorter shadow. The toy stayed in the same spot, so the class could notice that the light position caused the change.

3. This model did not make a real Sun or a real person. It helped the class test one idea safely indoors. By moving the flashlight and watching the shadow, students used the model to show how the Sun's position can change a shadow's length.

2 ANSWER WITH EVIDENCE

Use the passage

1. What did the flashlight stand for in the model?

2. Which model part stayed in the same spot, and why was that helpful?

3. What happened to the shadow when the flashlight was low? What happened when it was high?

3 YOUR TURN

Your own words

Draw a two-panel model showing rain moving soil down a hill. In panel 1, show soil on the hill before rain. In panel 2, show rain moving soil to the bottom of the hill, and label rain, soil, and hill.

ANSWER KEY

Shadow Model Lab

GRADE 2 · 2.1.e.i

PART 1 · READ AND MARK

Number the two light positions 1 and 2, then underline each shadow result that goes with a light position. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What did the flashlight stand for in the model?	**The flashlight stood for the Sun.**
2	Which model part stayed in the same spot, and why was that helpful?	**The toy stayed in the same spot. This helped show that the light position caused the shadow to change.**
3	What happened to the shadow when the flashlight was low? What happened when it was high?	**When the flashlight was low, the shadow was long. When the flashlight was high, the shadow was shorter.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Panel 1: A hill labeled hill has soil labeled soil on its side. Panel 2: Rain labeled rain falls, and some soil moves to the bottom of the hill.

Accept models that clearly show soil on a hill before rain and soil moved downhill after rain. Labels may be placed in either panel if rain, soil, and hill are identified clearly.