

Hands-On Activity

How Does a Shadow Grow?

NAME: _____

DATE: _____

Objective

Collaborate to model how shadows change throughout the day.
 What question will you investigate to meet this objective?

Materials

- new, unsharpened pencil
- modeling clay
- poster board
- metric ruler
- marker
- rocks (4)

Procedure

1

Use the clay to position the pencil upright in the center of the poster board.

Why is it important to position the pencil correctly?

2

Place the poster board outside in a sunny, flat area away from trees and other tall objects. Put a rock on each corner of the poster board.

What might happen if you did not weigh down the poster board?

Analyze your results

6

Use your data to create a line graph.

Label the horizontal axis (x-axis) *Time of day*. Label the vertical axis (y-axis) *Length of shadow*.

7

Analyze your graph.

What pattern do you observe?

8

Compare your results with your classmates.

Why is it important for scientists to share the results of their investigations?

Draw conclusions

9

Make a claim about the sun's movement based on the question you investigated.

Cite evidence from your investigation to support this claim.

10

If you could observe the shadow of a stick from morning to evening on a sunny day, what do you think you would observe?

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