

Shadow Investigation

Name / chosen name: _____

Work with an adult. Predict before testing; observations describe what actually happened.

Materials

A flashlight, opaque toy or card shape, paper and pencil.



Instructions

1. Place the object between the flashlight and paper.
2. Predict how moving the light will change the shadow.
3. Change only the light-to-object distance. Trace two shadows.
4. Compare their sizes and explain what you observed.

1. My prediction

Observation

Safety: An adult checks the light. Never look directly into bright lights or point them at eyes. Do not use lasers or stare at the Sun.

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Record and explain

1. What happened?

2. Was it different from my prediction?

3. What did I change or keep the same?

Scientific explanation: An opaque object blocks light traveling toward a surface. Moving the light or object changes the area where light is blocked and can change the shadow's size.

1. One further question

2. How I could test it safely with an adult

Background source:

https://www.exploratorium.edu/sites/default/files/files/Tinkering%20Studio%20Light%20and%20Shadow%20Starter%20Cards_English.pdf