

DAY 4: Experiencing a Solar Eclipse

Materials

- Flashlight or strong light source
- Small objects (e.g., small balls, toy figures)
- Cardboard Moon
- Tape
- Reference materials about solar eclipses (books, websites, etc.)



Conduct an Investigation

1. Set up a model of a solar eclipse using the materials provided.
2. Experiment with different positions and angles of the Moon and light source to create shadows.
3. Take turns being observers and participants.
4. Observe and discuss the effects of the eclipse on the small objects.

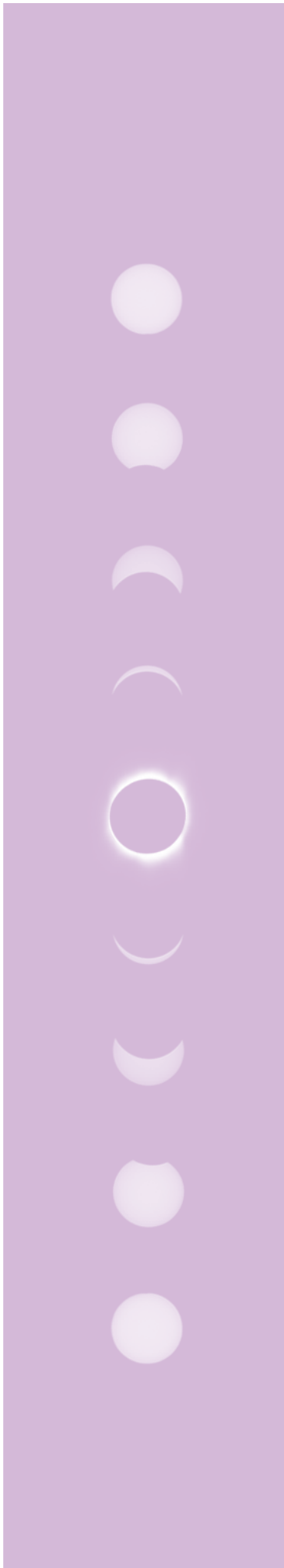


Communicate Information

1. What happens to the small objects when the Moon blocks the light source?

2. How does the size and position of the Moon affect the shadows?

3. Can everyone in the group see the eclipse at the same time?
Why or why not?



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- Tape
- Reference materials about solar eclipses (books, websites, etc.)



Objective: Students will simulate a solar eclipse using a light source and observe the effects.

Teacher Notes

Divide the students into small groups and provide each group with a flashlight or strong light source, small objects, a cardboard Moon, and tape. Begin by reviewing what a solar eclipse is and the basic concepts they have learned so far.

Conduct an Investigation

Step 1. Instruct the groups to set up their model by placing the cardboard Moon between the light source (representing the Sun) and the small objects (representing objects on Earth). Assist students in setting up their models and manipulating the objects to create shadows.

Step 2. Have the students experiment with different positions and angles of the Moon and light source to create shadows and observe the effects.

Step 3. Encourage the students to take turns being observers and participants.

Communicate Information

Ask the students to share their observations and discuss how it relates to real solar eclipses. Provide additional information or references about solar eclipses to enhance their understanding.

Encourage students to make connections between their observations and real solar eclipses. Offer guidance during the discussion and help students make scientific connections.