



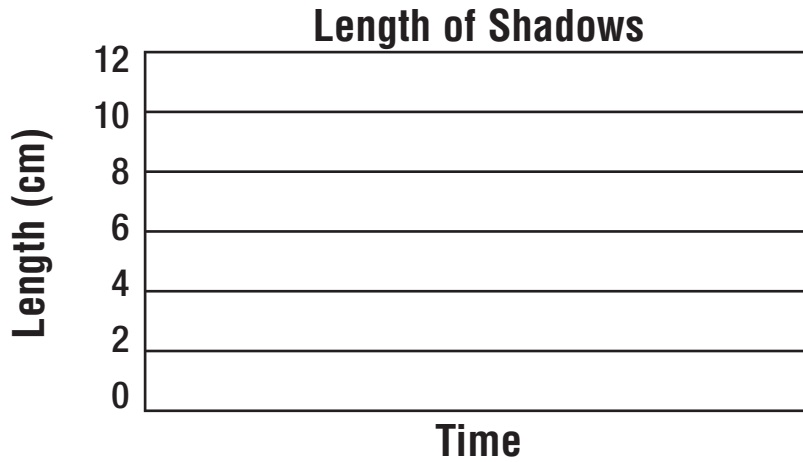
Shadows in the Sun

Procedure

- 1. Collaborate** Work with a partner. Place a square sheet of paper outdoors in a sunny area. Hold a ruler in the center of the paper while your partner molds the clay around the base, as shown in your book. The clay should keep the ruler standing upright.
- 2. Use the chart below to record your data.**

Time	Shadow Length (cm)

- 3. Measure** Trace the shadow made by the ruler on the paper. Use a metric ruler to measure the length of the shadow. Have your partner record the time of day and the shadow length in the chart.
- 4. Observe** Repeat step 3 once each hour for the rest of the school day.
- 5. Use Numbers** Use the data you collected to make a bar graph on the next page.



Conclusion

1. **Draw Conclusions** In what ways did the shadow change during the day?

2. **Analyze Data** Did the shadow’s length change by the same amount each hour?

3. **Predict** What do you think the length of the shadow will be two hours after the last time you measured?

Experiment

Guided Inquiry

Take the ruler setup indoors. Use a flashlight to produce the same shadows as the Sun did. Observe the position of the “Sun” for each shadow.