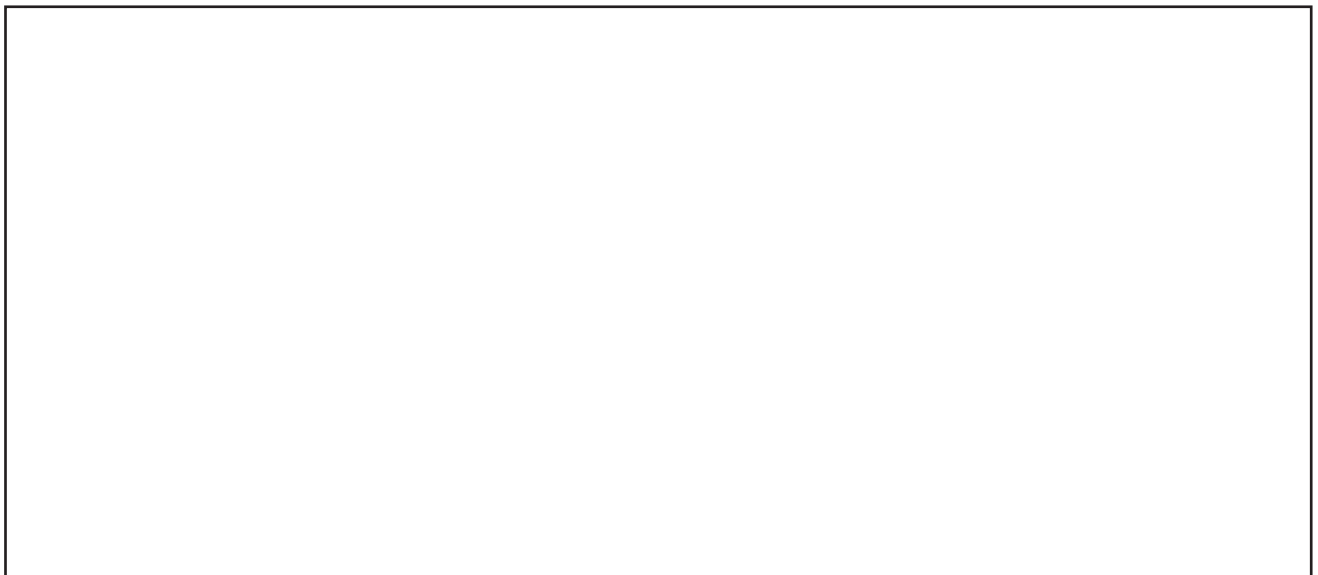


A Very Long Trip!

Procedure

- 1. Measure** Use a ruler to find the midpoint of the short side of a large index card. Draw a straight line across the center of the card.
- 2. Measure** Mark two points, each 2 cm in from the edge of the card. Then measure 2 cm in from one of the points and draw a small circle. Label the circle "Sun."
- 3. Use Models** Attach reinforced rings over the two marked points on the card. Carefully push the brass fasteners through the rings and the card. Spread the prongs of each fastener.
- 4.** Tie the ends of the string to form a circle with a circumference of about 25 cm. Loop the string around the brass fasteners.
- 5. Collaborate** Have a partner hold the edges of the card while you insert the tip of a pencil inside the string loop. Keeping the string tight, draw an ellipse by moving the pencil around the inside of the string. The ellipse models the orbit of a comet. Draw your ellipse in the space below.



Conclusion

Write the answers to the questions.

1. **Observe** How does the orbit of a comet compare with the orbits of the planets?

2. **Predict** What do you think happens to a comet when it reaches the point in its orbit closest to the Sun?

Investigate More!

Research Find out more about comets by researching at the library or on the Internet. Use your findings to make a poster.