

Name \_\_\_\_\_

Date \_\_\_\_\_

Period \_\_\_\_\_

## Day and Night Investigation

### Question:

- Why does the Earth experience day and night?

### Materials:

- ball on a skewer or pencil
- lamp with 100 watt bulb and no shade

### Safety:

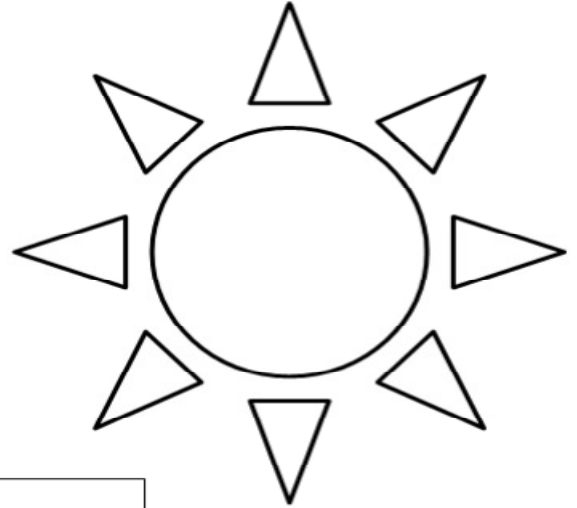
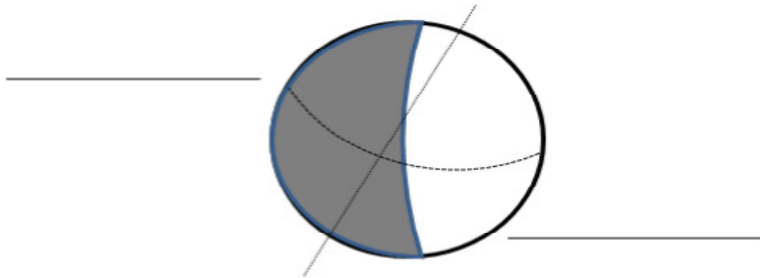
- Take care not to stick yourself or anyone else with the wooden skewer. Do NOT touch the bulb. It will become very hot and may cause severe burns.

### Procedures:

In this activity, the \_\_\_\_\_ represents the Earth.

1. Turn on the lamp. The teacher will turn off the classroom lights.
2. Hold your Earth model with the skewer (stick) tilted to the right.
3. Hold your Earth model (ball on a stick) out to your right side in front of the light.. **model tilted to the right.**
4. Look at the model to observe which side is illuminated (light) and which side is dark.
5. Label your **Day and Night** handout.
6. Slowly rotate your Earth (**DO NOT spin the ball on the stick-it will break.**) counterclockwise from west to east while looking at your model.
7. Observe how different locations on the Earth change from day to night.
8. Group members should take turns until everyone has completed steps 27 and observed one another.
9. Complete your **Day and Night** handout, and affix it to your notebook.

**Data/Observations:** Use the diagram below to record your observations



The Earth rotates in a \_\_\_\_\_ direction. It takes \_\_\_\_\_ for the Earth to rotate one complete time. The side of Earth facing the Sun experiences \_\_\_\_\_, while the side of the Earth facing away from the Sun experiences \_\_\_\_\_.

**Analysis of Results/Conclusion:**

Use your **Day and Night** handout to answer the following questions in your science notebooks:

1. Why does the Earth experience day and night?
2. What does Rotate means?
3. What is a limitation of the model?
4. What direction does the Earth rotate?
5. What is the rotational axis?
6. How long does it take for the Earth to rotate on its axis one time?