Name _____ Class _____ Date_____

QUICK LAB DIRECTED Inquiry

The Geocentric Model of the Solar System

In this lab, you will identify the evidence that led ancient astronomers to conclude that Earth was at the center of the universe and the solar system. You will then describe an alternative explanation that fits the same evidence. Finally, you will be asked to play the role of one of the ancient astronomers who supported the geocentric model and give an oral report explaining this reasoning.

OBJECTIVES

- Identify the evidence that supported the geocentric model of the solar system.
- Describe an alternative explanation for a set of observations.

MATERIALS

For each group

- books and articles
- computer (with Internet access)

PROCEDURE

1. What observation about the sun's motions did early astronomers use to support the geocentric theory?

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2. What other observations might have supported the idea that Earth was at the center of the solar system and the universe?

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Quick Lab continued

3. What other explanation might account for the observations that led ancient astronomers to think that Earth was at the center of the universe and solar system?

4. The Greek astronomer Ptolemy argued that Earth was at the center of the universe. Pretend your group is Ptolemy and his students. Carry out a brief discussion in these roles, describing why you support the geocentric concept of the universe. Be sure to supply the evidence that supports your position. For background information, check appropriate books and articles on the history of science. Record your evidence and sources.