Name: _____ Date: _____

GENIUSCHALLENGE

SOLAR AND LUNAR ECLIPSES

1. How often does Earth complete an orbit around the Sun? _____

2. How often does Earth complete a rotation around its axis? _____

3. About how often does the Moon complete an orbit around Earth? _____

4. The Moon is able to fully cover the Sun during a solar eclipse because of its current orbit. One million years from now, this will change because the Moon is slowly moving _____ from the Earth.

5. During a solar eclipse, why does the Moon appear to be the same size as the Sun?

_____

6. How does a partial solar eclipse occur?

_____

7. The Moon appears to be red in color during a total lunar eclipse because of the way light waves pass through Earth's _____.

8. How does a partial lunar eclipse occur?

_____

9. Why don't we have a lunar eclipse every month?

_____

10. On the back of this paper, draw a picture that includes all the components of a system that will help you explain how a lunar eclipse occurs.