Chapter 1: Earth, Moon and Sun

Study Guide

Name: Class: Date:

**Ch. 1.2 Earth in Space**

1. What is the difference between Earth’s rotation and its revolution?

rotation:

revolution:

1. How long does one Earth rotation on its axis take?
2. How long does one Earth revolution around the sun take ?
3. What causes days and night?
4. Why does Earth have seasons?
5. Define equinox.
6. Summer solstice (describe daylight/darkness for 24-hour period)

1. Fall equinox (describe daylight/darkness for 24-hour period)

9. Vernal/spring equinox:

**CHAPTER 1.3 Gravity and Motion**

1. Definition of gravity.
2. The strength of the force of gravity depends on what two factors? (p. 19)

and

1. Know Newton’s Law of Universal Gravitation:

1. Definition of inertia.

1. Know examples of inertia.

**CHAPTER 1.4 Phases & Eclipses**

1. What determines which phase of the moon you see?

1. What is the difference between the umbra and penumbra?

umbra:

penumbra:

1. What is the S-E-M alignment for a solar eclipse

4. Approximately how much time passes between a New Moon and the next New Moon?

5. How best can you identify the two gibbous phases of the moon? (Hint: What color are the slivers?)

6. Be able to recognize the New Moon and Full Moon phases illustrations.

**CHAPTER 1.5 Tides**

1. Understand the table and answers on page 31 in your text about identifying spring tides.

2. Spring Tide:

3. Neap Tide:

**Short Answer Questions (about 2-5 sentences)**

Why do people on Earth always see the same side of the moon? (p.

(HINT: Read p. 23, paragraph 2)

Explain why spring tides are higher than all other tides. Illustrate the two alignments of the sun, moon and Earth during spring tides.

(HINT: see p. 30 diagram)

Draw the S-M-E and S-E-M when in straight-line alignment.

Explain how inertia and gravity combine to keep Earth in its orbits.

(HINT: read diagram at bottom of page 20)