**Earth Science 11 Quiz Review: The Solar System**

**Quiz Date:** Thursday October 29thth

**Quiz Learning Outcomes**

1. I can describe the major characteristics of the sun and a method to measure its diameter.

2. I can explain how to predict the motion of orbiting bodies using Kepler’s Laws.

3. I can outline general features of components of the solar system: inner planets and outer planets, comets, meteoroids, asteroid and planetary satellites (Earth’s Moon)

4. I can provide examples proving that the earth rotates around its axis.

5. I can describe how the rotation and revolution of the Earth affects the motion of stars and other planets.

6. I can use models to explain the phases of the moon.

7. I can describe the purpose and function of tools and instruments used to gather astronomical information.

**Format**:

- Questions types can include multiple-choice, short answer, matching and some diagrams (drawing).

-You must bring a ruler and calculator!

**Content**:

-In the second half of the Space Unit we have completed the following note packages, labs and assignments. All of the following contain material that could appear on the quiz:

a) The Solar System:

Formation (Nebular Theory), The Sun, Structure (Geocentric, Heliocentric and supporting evidence).

b) The Solar System: Outer and Inner Planets:

Inner Planets, Outer Planets, Solar System Debris, Planetary Satellites (Earth’s Moon and its characteristics)

c) Earth’s Structure and Motion:

Earth’s Formation (Nebular Theory), Earth’s Interior, Earth’s Magnetic Field, Earth’s Rotation (Foucault’s Pendulum, Coriolis Effect), Axis and Rate of Rotation, Effects of Earth’s Rotation, Earth’s Revolution and its effects.

d) Labs: Phases of the Moon Oreo Lab

**Chapters, Topics and Key Words:**

Earth’s Rotation and Revolution,

-Earth’s Rotation: a) Proven by Foucualt’s Pendulum and the Coriolis Effect;

-Time Zones: a) Prime Meridian and other important lines of longitude.

Earth’s Moon,

-Moon Formation

-Moon’s Orbit

-Moon Phases: a) Terms and characteristics.

-Lunar Eclipses: a) Definition and characteristics; b) Labeled illustration.

The Sun and the Solar System,

-Correct order of the planets found within our Solar System (My Very Easy Method: Just Set Up Nine).

-Common characteristics of Terrestrial Planets and Jovian Planets.

-The Sun: a) Parts of the Sun (Core, Radiative Zone, Convection Zone, Photosphere, Sun Spot, Chromosphere, Corona); b) Nuclear Fusion; c) Solar wind and Aurora formation.

-Heliocentric and Geocentric Models: a) Definitions; b) Strengths and weaknesses; c) Supporting evidence.

-Kepler’s 3rd Law of Planetary Motion P2=D3 (You will need a calculator for this quiz!).

-Gravitational Attraction: a) Definition; b) How is it increased or decreased.

-Retrograde motion of Mars: a) Definition and explanation..

The Planets and the Solar System

-Planet Characteristics: a) Inner Planets; b) Outer Planets

-Solar System Debris: a) Comets; b) Asteroids, Meteors, Meteoroids, Meteorites