Review Guide Unit 3 –

Solar System

NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

It is important to review your learning before you take an assessment because assessments are worth 70% of your grade. Learning requires **practice** and completing the questions below will help you **practice** for the assessment. If you do not **practice**, you may not score well. In order to have the opportunity to re-take an assessment, I need to know that you have completed the **practice** first in order to be successful. Therefore, if you think you may wish to re-take an exam on the following Wednesday after school or during your lunch, the review guide must be complete and turned in at the beginning of the period on the day of the test. Students may only earn ½ credit back on the points that were missed.

**Important Vocabulary:** You do not have to define the words, but you do need to understand them.

Constellation Sun Gravitation force

Law of Universal Gravitation Orbit Solar System

Astronomical unit (AU) Axis Rotation

Lunar eclipse Solar eclipse Tide

Planet Terrestrial planets Gas planets

Moon Giant Impact Theory Asteroid

Comet Meteor Meteorite

Star Chromosphere Corona

Sun spot Aurora Solar constant

Kepler’s Laws Copernicus Model Ptolemy Model

Constellation Sundial Weight

Mass Triton Kuiper belt

Solar flare Solar wind Photosphere

***26.1 Motion and the Solar System Learning Targets***

* Explain the significance of gravity in maintaining the solar system.
* Distinguish between Sun-centered and Earth-centered models of the solar system.
* Explain the current model of the solar system

**26.1 Review Questions:**

1. List the planets in order from closest to the sun to furthest away.
2. Define solar system.
3. What does the Greek word “planet” mean?
4. How far is 1 AU?
5. Explain the Earth-centered model vs. the Sun-centered model. Include scientist name for each model .
6. What two discoveries did Galileo make that helped to overturn Ptolemy’s model?
7. What are Kepler’s two laws?
8. Restate the universal law of gravitation in your own words.
9. What is the force of attraction between two objects called?
10. Define orbit.
11. How far is the earth from the sun in astronomical units?
12. What is a constellation?

 **26.2 Review Questions:**

***26.2 Motion and Astronomical Cycles***

* Define the lunar cycle.
* Differentiate solar and lunar eclipses.
* Explain what causes seasons.
* Describe the impact of the Moon on tides.
1. Define axis and rotation. What is the difference?
2. What is a leap year? How often do they occur? How many days would be in a leap year compared to a non-leap year?
3. Define year.
4. Define lunar cycle.
5. What is the difference between a lunar eclipse and a solar eclipse? (Include diagrams)
6. Does the Moon rotate? How do you know?
7. What is the difference between mass and weight?
8. Explain what causes the seasons.
9. Explain what causes the tides. What two forces are involved?

***26.3 Objects in the Solar System***

* Explore theories about how the Moon was formed.
* Compare and contrast properties of planets.
* Identify features of objects— other than the Sun, the Moon, and planets, in the solar system.

**26.3 Review Questions**

1. Do we always see the same side of the Moon? Explain.
2. Is one side of the Moon forever in darkness? Why or why not?
3. List the terrestrial planets. List the gas planets.
4. What is the difference between terrestrial and gas planets?
5. Explain the Giant Impact Theory? Discuss two pieces of evidence that supports the Giant Impact Theory.
6. What is the region outside of Neptune called?
7. What is the difference between a meteor and a meteorite?
8. What is the asteroid belt and where is it located?
9. What is a comet made out of? What direction does the tail of a comet face in relationship to the sun?
10. Which former planet is now considered a dwarf planet?
11. Name that planet!
12. known as the red planet
13. named after the roman god of war
14. largest rings
	1. the planet that is the hottest.
	2. rotates “backwards” (2 answers)

***27.1 The Sun***

* Explore the properties of the Sun.
	1. moon called triton

**27.1 Review Questions**

1. What is star? How is it different from a planet or moon?
2. The sun is made mostly of what element?
3. What two elements come together to form the core of the sun?
4. What occurs at the center of the sun to form energy?
5. Define sun spots, solar winds, solar flares.
6. What causes auroas?
7. Diagram the sun including the corona, chromosphere, photosphere, convention zone, radiation zone, and core. Indicate where the hottest areas are location and where nuclear fusion takes place.