**NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD: \_\_\_\_\_ DATE: \_\_\_\_\_\_\_**

**ASTRONOMY WEBQUEST:** Use the web links as your resource. Record your responses on a separate sheet of paper.

**1.** [**https://en.wikibooks.org/wiki/High\_School\_Earth\_Science/Earth%27s\_Motions**](https://en.wikibooks.org/wiki/High_School_Earth_Science/Earth%27s_Motions)

1. Describe the difference between Earth's rotation and its revolution.
2. How is a Foucault pendulum used to demonstrate that the Earth is rotating?
3. Why does the Earth stay in orbit around the Sun?
4. Explain the role of Earth’s distance from the Sun and its tilt play in causing seasons.

2. [**http://www.weather.gov/cle/Seasons**](http://www.weather.gov/cle/Seasons)

1. Compare and contrast summer and winter solstice.
2. Compare and contrast autumnal and vernal equinox.

3. [**http://www.enchantedlearning.com/subjects/astronomy/moon/Phases.shtml**](http://www.enchantedlearning.com/subjects/astronomy/moon/Phases.shtml)

1. What is a full moon and how does it form?
2. What is a new moon and how does it form?
3. Explain waning and waxing.
4. Why do we see only one side of the Moon?
5. Compare and contrast spring and neap tides.
6. Draw and label a lunar and solar eclipses.

4. [**http://www.enchantedlearning.com/subjects/astronomy/sun/sunspots.shtml**](http://www.enchantedlearning.com/subjects/astronomy/sun/sunspots.shtml)

[**http://www.astronomynotes.com/starsun/s2.htm**](http://www.astronomynotes.com/starsun/s2.htm)

Describe each layer of the Sun.

|  |  |
| --- | --- |
| core |  |
| radioactive zone |  |
| convection zone |  |
| photosphere |  |
| chromosphere |  |
| corona |  |

1. Draw and label the structure of the Sun.
2. How does the Sun generate energy?
3. Describe the mass and size of the Sun in reference to the Earth.
4. Describe the following terms: sunspots, solar flares, solar winds, and prominences.

|  |  |
| --- | --- |
| sunspots |  |
| solar flares |  |
| solar winds |  |
| prominences |  |

5. [**http://www.physicsclassroom.com/class/circles/Lesson-4/Kepler-s-Three-Laws**](http://www.physicsclassroom.com/class/circles/Lesson-4/Kepler-s-Three-Laws)

1. How do Kepler’s 1st and 2nd Laws help to explain the Earth’s orbit around the Sun?
2. Define the following terms, and draw and label an illustration:

eccentricity

perihelion

aphelion

barycenter

6. [**http://www.allaboutspace.com/subjects/astronomy/solarsystem/index.shtml**](http://www.allaboutspace.com/subjects/astronomy/solarsystem/index.shtml)

1. Identify the all celestial bodies that form our solar system and place them in order starting from the Sun.
2. Where is our solar system located?

7. [**http://www.astro.keele.ac.uk/workx/starlife/StarpageS\_26M.html**](http://www.astro.keele.ac.uk/workx/starlife/StarpageS_26M.html)

1. Compare and contrast apparent magnitude and absolute magnitude.
2. How do stars form?

**8.** [**http://www.big-bang-theory.com/**](http://www.big-bang-theory.com/)

[**https://www.youtube.com/watch?v=y5tKC3nEx2I**](https://www.youtube.com/watch?v=y5tKC3nEx2I)

1. Explain the Big Bang theory.
2. Explain the Doppler Effect and how it is used to explain red shift.