## Name: \_\_\_\_\_\_

## Ch.1: Cycles of the Sky – Seasons Study Guide Astronomy

Nerd Words:

- 1. Rotation Axis -
- 2. Equinox –
- 3. Vernal Equinox –
- 4. Autumnal Equinox –
- 5. Solstice –
- 6. Winter Solstice -
- 7. Summer Solstice –

## Review:

- 1. What are two characteristics of Earth's orbit around the Sun that signify the effects we see here on the planet? Explain each.
- 2. What is the common misconception that explains why we have seasons here on Earth?
- 3. How do all four seasons relate to the distance from the Sun to Earth? Explain each.
- 4. What is our rotation axis tilt? What would be the effect of a more severe axis tilt? Less severe? Explain.

- 5. The axis is not perpendicular to the orbit around the Sun. What does that mean? Explain.
- 6. How does the angle of sunlight affect the start of the seasons? Explain the relationship.
- 7. State the four alignment dates and list the degree of sunlight for each in the northern hemisphere. How do they compare to the southern hemisphere? Equator? Explain.

- 8. If the planet rotates eastward, which direction does the Sun move in the sky? Explain.
- 9. What key characteristic of Earth is responsible for the Sun's movement through our view of the sky? Explain.
- 10. Which celestial guideline (even though invisible) is most important when tracking the Sun's pathway in our sky? Explain.

- 11. What is the difference between an equinox and a solstice?
- 12. Where is the Sun in our sky at each of the four alignment dates? Explain why for each.

- 13. Where will the Sun rise and set on each of the four alignment dates? Explain why for each.
- 14. Stonehenge is a popular landmark in Europe. Why was it built? Explain.