Chapter 3 Study Guide- **Answer on a separate sheet of paper (answers due Wednesday).**

1. What is parallax and how is it used?

2. What are a light year and an astronomical unit and how are they used?

3. What are the three main types of galaxies?

4. What type of galaxy are we in and what is its name?

5. What is the universal law of gravitation? (Explain it in your words)

6. What two factors keep Earth in orbit? Explain what they are.

7. What is accretion and why is it important?

8. On the Hertzsprung-Russell diagram, stars increase in brightness as they increase in what?

9. What has to happen for a star to be “born”?

10. What does the lifetime of a star depend on? What will the stars become when they die (list all possibilities)?

11. What is a supernova and what does mass have to do with it?

12. What are quasars?

13. What is the definition of a planet?

13. What are the interior layers of the sun and what happens in each layer?

14. What are the atmospheric layers of the sun and what happens in each layer?

15. What is a spectrograph?

16. What are solar flares and prominences?

17. What goes on the horizontal axes of the HR Diagram? What goes on the vertical axes of the HR Diagram?

18. Where are dying stars on the HR diagram and what determines where they go?

19. What are sunspots?

20. What happens in the sun’s core?

You do not have to write down your answers but you may want to review the following: why is the scientific method **not** a rigid series of steps, metric units, independent and dependent variables, pseudoscience

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