

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

Date: \_\_\_\_\_

Period: \_\_\_\_\_

## **Light and Stars: Stars Study Guide**

### Astronomy

1. Compare and contrast flux and luminosity.
2. Give two examples of stars near us and how their luminosity compares to the Sun's.
3. What is the range of luminosity and how is it affected by distance?
4. When talking temperature, what part of the star is used and why?
5. How does color relate to temperature?
6. Describe what a spectral type is and what classes there are in accordance with temperature.
7. Which classes were added after the fact and why?

8. Pick any 3 of the classes and describe the features and temperature range for each along with an example star.

9. How is radius tied to luminosity? Explain.

10. How do dwarf stars compare to the Sun vs giants? (In a general sense...)

11. Explain what HR stands for and what that diagram represents.

12. Given the HR diagram in your notes, how does Spica compare to Procyon B? Describe each.

13. Using the HR diagram, name three stars on the main sequence.

14. What is the main sequence on the HR diagram?

15. List and describe the numerical luminosity classes and what each class is described as.

16. How is gravity a factor in stellar evolution? Explain.

17. Compare and contrast low mass versus high mass star cycles. Draw a diagram to help with your explanation.

18. Draw a diagram that compares the gravitational effect of a neutron star versus a black hole and how both relate to the gravity of the Sun.