

Name _____

Date _____

Unit 11: The Sun and Components of the Universe Review

1. Nebula- **Clouds of gas and dust**
2. Galaxy - **Made up of stars and Nebulae**
3. The Sun - **A yellow medium sized star. Found in the main sequence. Closest star to the Earth. Located in the Milky Way Galaxy**
4. H-R Diagram – **Measures a stars brightness/luminosity/magnitude and Temperature**
5. Magnitude /Luminosity – **A stars brightness**
6. Black Hole – **A black hole is an area in space from which nothing can escape, including light**
7. What group of stars does the Sun belong to on the H-R diagram? **Main Sequence**
8. What is the hottest color of star according to the H-R diagram? **Blue**
9. What is the coolest color of star? **Red**
10. Where are hot stars located on the H-R diagram? **Left**
11. Where are cooler stars located on the H-R diagram? **Right**
12. What type of star will become a black hole? **Massive Star (Supergiant)**

13. What characteristics do scientists use to classify stars? **HR diagram**

(**Temperature & Luminosity**)

14. What will our Sun become after it runs out of hydrogen? **White Dwarf**

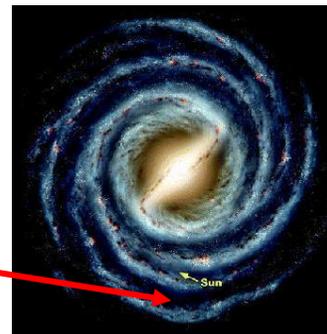
15. In order to find the temperature of a star scientist look at the stars **Color**

16. What galaxy is our sun located in? **Milky way**

17. Where in that galaxy is our sun located?

The outer edge of one of the spiral arms

18. What is the closest star to the Earth? **The Sun**



19. What force holds a galaxy and stars together? **Gravity**

20. The process that stars use to produce energy is called **Nuclear Fusion**

21. What elements have to fuse together in order for stars to produce energy?

Hydrogen & Helium

22. Why does our Sun appear brighter than any other star in the galaxy? **It is closer to us**

23. What are all galaxies made of? **Stars and solar system**

24. How do scientist classify galaxies? **By their shapes**

25. What is the Universe mostly made of? **Everything that exist**

Type of Galaxy	Properties	Picture
Elliptical Galaxy	Oldest stars Oval shape	
Spiral Galaxy	Our Galaxy Milky way Galaxy is this shape, new stars in the arms & old in the center bulge	
Irregular galaxy	Baby stars No definite shape	

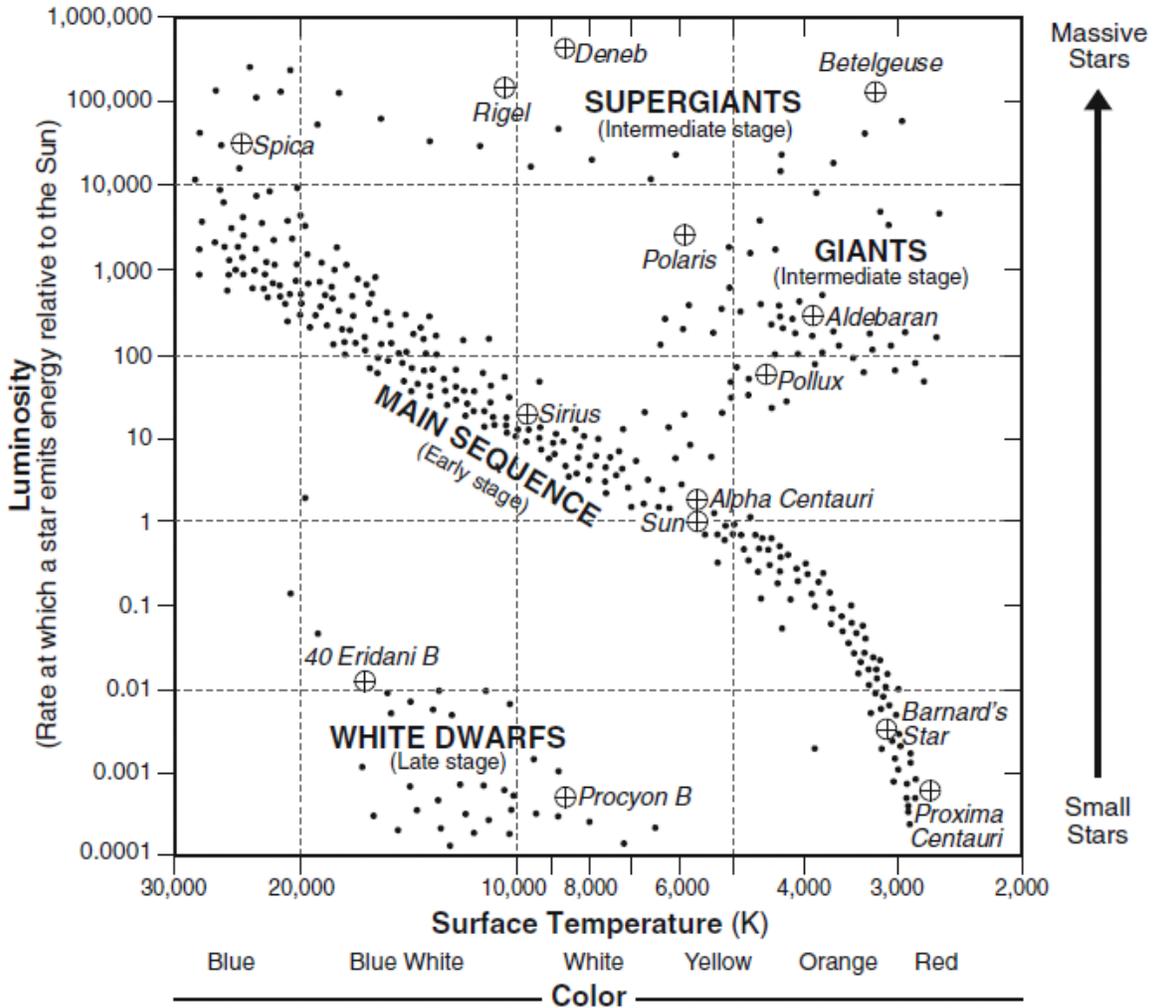
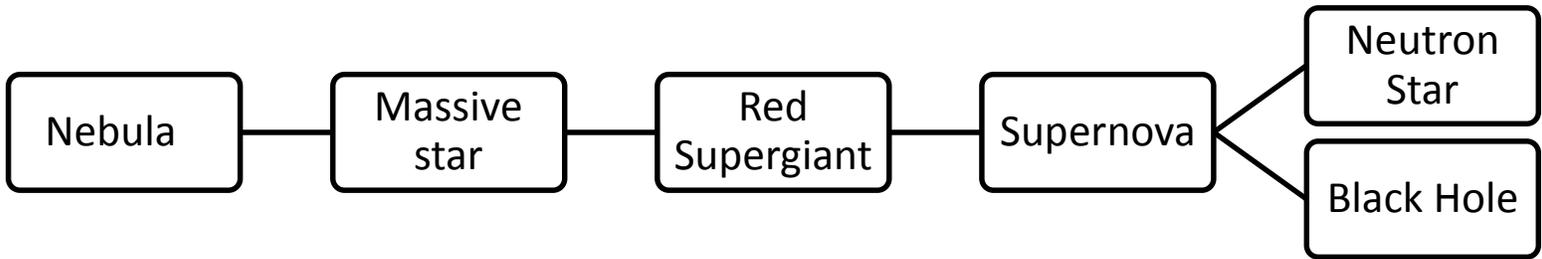
26. What are the steps in the life cycle of a main sequence star?



27. What are the steps in the life cycle of our SUN?



28. Name the steps in the life cycle of a Supergiant?



1. Which group of stars are hot, but dim? **White Dwarfs**
2. Name a Main sequence star that is NOT our Sun. **Sirius**
3. Which has a hotter surface temperature, a Supergiant or a White Dwarf? **White Dwarf**
4. What color is *Rigel*? **Blue White**
5. What are the 4 categories listed in bold on the H-R Diagram? **Red Giants, Supergiant, white Dwarfs, & Main Sequence**

6. What star is brighter than Aldebaran, but dimmer than Spica? **Polaris**

7. What star is hotter than 40 Eridani? **Spica**

8. What is the brightest star on the H-R Diagram? **Deneb**

9. What is the hottest star on the H-R Diagram? **Spica**