

**Notes: Life Cycle of our Sun (and other medium sized stars)**

1. What process gives our Sun its energy?
2. What is the Sun's main fuel?
3. What is produced inside the Sun when this fuel is fused together?
4. What are the stages of our Sun's life (in order)?
5. What is a "main sequence" star?
6. What color is our Sun, and what does that tell us about our Sun's temperature and mass? Explain your reasoning.
7. Right now, our Sun is a main sequence star. What will happen to end this stage of our Sun's life?
8. Draw a cross-section diagrams of our Sun at the beginning and the end of main sequence stage of life. Label the materials in the Sun, and explain why they are there.



14. As our Sun enters its final stage of life, what will happen to its color and temperature? Explain why.

15. What is the source of the Sun's energy at this stage?

16. This final stage of life begins after the red giant stage, when the Sun will become a \_\_\_\_\_ . This is basically a bunch of \_\_\_\_\_ surrounding a \_\_\_\_\_ .

17. The colorful gases will eventually float away, and the Sun will then be just a \_\_\_\_\_ .

18. There is actually a few more stages in our Sun's life. Our Sun will eventually turn into a \_\_\_\_\_ , then a \_\_\_\_\_ , and finally a \_\_\_\_\_ . This will happen because...

19. Our Sun is about \_\_\_\_\_ old, and it will turn into a red giant in about \_\_\_\_\_ from today.