

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 diagram of our Sun at the end of main sequence stage of life. Label the materials in the Sun, and explain why they are there.
9. In its next stage of life, our Sun will become a _____. In this stage, what will happen to our Sun's size? Explain why.

10. When our Sun becomes a red giant, what will happen to its temperature? Why?
11. When our Sun becomes a red giant why will it turn red?
12. What will be the source of the Sun's energy during the Red Giant stage?
13. What will cause our Sun to enter its final stage of life (_____)?
14. As our Sun enters its final stage of life, what will happen to its size? Explain why.
15. As our Sun enters its final stage of life, what will happen to its color and temperature? Explain why.
16. What is the source of the Sun's energy at this stage?
17. There is actually one more stage in our Sun's life. Our Sun will eventually turn into a _____. This is because...
18. Our Sun is about _____ old, and it will turn into a red giant in about _____ from today.