Name _____ Build Your Own Star

http://www.planetseed.com/files/flash/science/lab/airspace/byo_star/en/byostar.htm

Explore the relationships between the properties that a star starts out with and the temperature, color, size and lifetime of that star. Take a minute to go over the interface and how you change parameters and what information will be given to you as the star progress through its lifetime. You can slow down or speed up time; you can also zoom in or out. That may be helpful since your star may change size dramatically.

Parameters	Star 1	Star 2	Star 3	Star 4	Star 5	Star 6
Mass						
Metal Content						
What stages does your star go through?						
What is the hottest temperature your star has? At what stage does this occur?						
What color is your star when it is on the main sequence?						
How big does your star get? At what stage is it the biggest?						
How long does your star *live*?						
How bright did your star get relative to the Sun?						

Use the data about the stars you built to answer the questions below.

1. In Chemistry “metals” describe a group of specific elements on the periodic table. What meaning does “metals” have in astronomy? Is it the same as chemistry?

2. Did all your stars go through the same stages? What difference, if any, did the starting mass or metal content have on the stages your stars went through?

3. How were the size of your stars affected by their starting mass and metal content?

4. What relationship did you find between the starting mass and the age of your stars?

5. What relationship did you find between the starting metal content and age of your stars?

6. What relationship did you find between the starting mass and metal content and the temperature of your stars?

7. What relationship did you find between the starting mass and metal content and the brightness (luminosity) of the stars?

8. What conclusions can you make about how the starting mass affects a star?

9. What conclusions can you make about how the starting metal content affects a star?