Name_____ Date_____ Section_____

8th Grade Science/ Unit 2 Space Science

Title: Activity 3 The Life Cycle of Stars

Challenge Question: How do stars change over time?

Background:

Can you explain what a life cycle is? How could this idea be applied to stars?

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Materials:

Space Science book

Vocabulary: Define the following terms in your own words.

Term	Definition	Picture or Example
nebula		
white dwarf		
supernova		
neutron star		
H-R diagram		
main sequence		

Procedures:

1. Read pages 26 – 35 in the *Space Science* book.
2. Answer questions 1 – 3, 5 – 8, and 10 - 17 from the reading.
3. Do Lesson Review on page 37, questions 1 – 11.
4. Create definitions for the Vocabulary. Answer Analysis Questions.
5. Write Conclusion.

Data/Results: *(Write your responses to the book questions on a separate sheet of paper.)*

Analysis Questions:

1. Describe the life cycle of a low-mass star. Why does the star become a giant? How does the process of becoming a giant affect the appearance of the star? Why does the star change color?

2. Why are nebulae considered the birthplace of stars?

3. How does the end of the life cycle of a high-mass star differ from that of a low-mass star?

4. How can gravity help explain the formation of stars?

Conclusion: How do stars change over time? *(Use evidence and examples from the assigned reading to support your answer.)*