

Astronomy Unit Remediation

Name _____ Date _____ Period _____

In order to remediate you for this unit, you will need to do a few things to help you understand the topics of this unit in order to become proficient on them.

First, you will need to read, or have read to you, chapter 1 of the paperback Earth Science book. (You may borrow a hard copy of the book from your teacher, or there is a link to the electronic copy on the science grade page of powerschool and also a link on your science class website.)

Next, go to this website: <http://www.uen.org/core/science/sciber/sciber9/index.shtml>

Click on the Universe link in the middle of the page. Because you scored lower than proficient on the Astronomy Unit Test, you will need to read through the provided sections of this online text from the Utah Core for Earth Science and answer the questions in order to try and learn more about the topics of this unit. *When you are done, sign and have your parent / guardian sign below, indicating that you have done the above tasks.* You may then submit this completed paper with the appropriate signatures to supplement your unit test score enough to achieve proficiency level. *You will have one week from the time you took the unit test to finish this remediation assignment.*

Student Signature _____ Date _____

Parent/Guardian Signature _____ Date _____

Teacher Signature _____ Date _____

Original Unit Test Score _____ %

Utah Sci-ber Text

Star Colors

1. What is the Doppler Effect?
2. Why does the pitch in the sound of a moving object change as it moves closer to or further from you?
3. What is red shift and blue shift of light?
4. Answer the questions at the bottom of the page and check your answers.

I'm Expanding

5. What was Edwin Hubble's evidence that the universe must be expanding?
6. How can the expanding universe be compared to a loaf of raisin bread?

So... What Do You Think Now?

7. Research each of the listed individuals and answer the questions provided for each:
 - a. **Claudius Ptolemy**
 - b. **Nicolaus Copernicus**
 - c. **Johannes Kepler**
 - d. **Galileo Galilei**

Technology Moves Science Forward

8. Describe three examples of how technology has helped change our understanding of the universe.

9. Why is it important that we have telescopes that can detect different types of energy?

Fusion Makes Elements Form / Creating Elements

10. What were the first two elements to form after the big bang?

11. Why can extremely massive stars produce elements bigger than iron?

Where did They Come From?

12. What are the two big clues that give us an idea of how our solar system formed?

13. What is a nebula?

14. Describe the formation process of a star and planets.

How Old? How Big?

15. What is the evidence that our solar system is approximately 4.56 billion years?

16. Compare the sizes of the following objects: planets, stars, solar systems, galaxies, universe