

Name _____ Date _____ Period _____

Astronomy Unit Review

Standard 1: students will understand the scientific evidence that supports theories that explain how the universe and the solar system developed. They will compare Earth to other objects in the solar system.

Standard 1 Objective 1: Describe both the big bang theory of universe formation and the nebular theory of solar system formation and evidence supporting them.

This assignment is to help you review major concepts from the Astronomy Unit that we recently studied. Please answer the following questions as completely and as thoroughly as you can. It is a valuable tool to help you be successful on the unit test.

1. Why was Copernicus' and Galileo's ideas not accepted at first?
2. Why was Galileo's discovery of moons orbiting Jupiter a significant event?
3. Which early astronomers placed Earth in the center of the Universe?
4. Which early astronomers placed the Earth in the center of the Universe?
5. What ancient culture could predict eclipses?
6. Which early astronomers placed the Sun in the center of the Universe?
7. Which ancient culture created algebra and the number system we use today?

8. Why does Earth experience night and day?
9. What is a month?
10. What part of the electromagnetic spectrum is used to study space?
11. What 2 factors keep the planets in orbit around the Sun?
12. What are the 5 main steps of the nebular theory?
13. Why is technology important with studying the Universe?
14. What types of technology have contributed to the exploration of our solar system?
15. Describe the nebular theory.
16. What instrument has helped scientists look farther into the universe?
17. What planet has the hottest surface temperatures?
18. Why is it theoretically possible to fly through the upper layers of Jupiter and Saturn?
19. Compare Earth to the other planets. What makes it able to support life?
20. Describe the big bang theory.
21. Explain a red shift.
22. What does it mean if a Doppler radar of the sun shows a red shift on the west side of the sun and a blue shift on the east side?
23. Explain the life cycle of low mass stars

24. Explain the mass of medium mass stars
25. Explain the mass of high mass stars
26. Explain the relationship between the mass of a star and its relative mass of the elements produced.
27. Explain how the H-R Diagram is organized.
28. What produces energy in a star?
29. What explains the formation of the heavy elements?
30. Why is the big bang theory accepted as scientific theory?
31. What is one difference between high mass stars and low mass stars?
32. How are elements larger than Iron (Fe) formed?
33. What can scientists learn by the emission spectrum of a galaxy?
34. What are the three pieces of evidence that support the big bang theory?
35. Put the following objects in order from smallest to largest
 - a. Galaxy
 - b. Solar system
 - c. Star
 - d. Meteoroid
 - e. Moon
 - f. Planet
36. What makes a galaxy?