Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_

**Review Guide for the Universe and the Solar System Unit**

1. What is a light year?
2. What characteristics are used to classify stars?
3. What color are the hottest stars? What color are the coolest stars?
4. What event marks a mass of dust and gas becoming a star?
5. What determines how long a star lives?
6. How does a low to medium mass star die and what does it become?
7. How does a high mass star die and what does it become?
8. What does the Hertzsprung-Russel diagram show about main sequence stars?
9. What force pulls together the matter in stars?
10. What are the three types of galaxies, and which type is our Milky Way Galaxy?
11. What is the name of the theory most scientist agree explains how the universe began?
12. What is likely to happen to the universe in the future?
13. What did the solar system form from?
14. Complete the table

|  |  |  |
| --- | --- | --- |
| Planets, in order from the sun | Inner or outer planet | Most Distinctive Feature |
|  |  |  |
|  |  |  |
|  |  |  |
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|  |  |  |
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|  |  |  |
|  |  |  |

1. What are three ways the inner planets are different from the outer planets?
2. Why doesn’t the atmospheres of the gas giant planets escape into space?
3. Where is the asteroid belt?
4. What are Saturn’s rings made of?
5. Define meteoroid, meteor and meteorite.

Use the following information to answer questions 20-21.

Lourdes and Alex are creating a scale model of the first four planets of the solar system for the science fair. Lourdes has a poster of the solar system in her bedroom. It shows the sun and all the planets in order in their orbits. Lourdes explained that although the planets in the poster appear very close together, they are actually very far from each other. She explained that the solar system is very large in size. Lourdes told how distances in the solar system are measured in astronomical units (AU). One AU is 1.5 x 108km, which is the distance from the Earth to the sun. Lourdes showed Alex a table with the distances in the solar system in astronomical units (AU).

**Distances to the Sun**

|  |  |
| --- | --- |
| **Planet** | **Distance to the Sun (AU)** |
| **Mercury** | **0.39** |
| **Venus** | **0.72** |
| **Earth** | **1.00** |
| **Mars** | **1.52** |
| **Jupiter** | **5.20** |
| **Saturn** | **9.53** |
| **Uranus** | **19.20** |
| **Neptune** | **30.07** |

1. When the model is created, which planet will be furthest from Saturn?
2. Lourdes and Alex decide to use a scale of 1 AU = .5 meters. How much space will they need for the whole model (the sun to Mars)?