

Student name: _____

Field Trip: Hayden Planetarium

Answer the following questions as you tour the Hayden Planetarium, based on information you find throughout the exhibit halls. Be sure to note the name of the exhibit where you found the answer.

1. **What star other than our Sun was the first discovered to have multiple planets orbiting it?**

Exhibit name where you found the answer: _____

2. **Who was the first to propose a heliocentric solar system, and in what year?**

Exhibit name where you found the answer: _____

3. **How much does the Willamette meteorite weigh?**

Exhibit name where you found the answer: _____

4. **What is the name of the diagram that astronomers use to organize stars according to their surface temperature and luminosity?**

Exhibit name where you found the answer: _____

5. **How many stars can the human eye see across the entire sky?**

Exhibit name where you found the answer: _____

6. How many stars are estimated to be in the entire observable universe?

Exhibit name where you found the answer: _____

7. What will happen to the Sun when it runs out of its nuclear fuel in about five billion years?

Exhibit name where you found the answer: _____

8. What is the source of the Sun's energy?

Exhibit name where you found the answer: _____

9. Which type of star will live the longest: a low-mass star, intermediate-mass star, or high-mass star?

Exhibit name where you found the answer: _____

10. What type of star will the Sun evolve into?

Exhibit name where you found the answer: _____

11. Give examples of a low-mass star, intermediate-mass star, high-mass star, and a very high-mass star.

Exhibit name where you found the answer: _____

12. **Explain why high-mass stars are so critical to the universe as we know it, and to life on Earth.**

Exhibit name where you found the answer: _____

13. **How many galaxies are estimated to exist in the observable universe?**

Exhibit name where you found the answer: _____

14. **What are the dimensions (diameter and thickness) of our galaxy, the Milky Way?**

Exhibit name where you found the answer: _____

15. **What is the name of the group of galaxies to which the Milky Way belongs?**

Exhibit name where you found the answer: _____

16. **Where is our solar system located with respect to the Milky Way?**

Exhibit name where you found the answer: _____

17. **Name the three major classes of galaxies.**

Exhibit name where you found the answer: _____

18. How old is the universe estimated to be?

Exhibit name where you found the answer: _____

19. What is meant by the term "red shift?"

Exhibit name where you found the answer: _____

20. What are quasars?

Exhibit name where you found the answer: _____