

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. When done, hand in this form along with your admission ticket stub. **The assignment will not be accepted without that stub.**

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: _____

HOURS

The Museum is open daily, 10:00 a.m.—5:45 p.m.

ADMISSIONS AND TICKETING

Suggested General Admission

Adults: **\$16**

Children (2-12): **\$9**

Seniors/Students with ID: **\$12**

Suggested General Admission, which supports the Museum's scientific and educational endeavors, includes admission to all 45 Museum halls and the Rose Center for Earth and Space. Should you wish to pay less than the suggested admission, you may do so by purchasing tickets at any admissions desk at the Museum.

DIRECTIONS

Entrances:

The Museum is located at 79th Street and Central Park West and is easily reached by public transportation. The main entrance to the Hayden Planetarium is located at 81st Street between Central Park West and Columbus Avenue.

Museum Entrance Hours:

- **Main Entrance** (79th St. at Central Park West): Every day from 10 a.m. – 5:45 p.m.
- **Subway Entrance** (Lower Level): Every day from 10 a.m. – 5:45 p.m.
- **Planetarium Entrance** (81st St. between C.P.W. and Columbus Ave.): Every day from 10 a.m. – 5:45 p.m.

PARKING

Parking is available at our facility conveniently located within the museum; enter at 81st Street between Central Park West and Columbus Avenue. The hours of operation are 8am – 11pm. Rates are as follows:

Up to 1 hr \$15.21

Up to 2 hrs \$17.74

2 to 5 hrs \$26.18

5 to 10 hrs \$34.64

Max to close \$38.86

18.375% Tax Extra

SUBWAY FROM PENN STATION

Take 8th Ave local (B or C) uptown to 81st St Station. Planetarium entrance (outside) most easily accessible from front of train. Subway entrance to Museum accessible from rear of train. Download subway map at <http://www.mta.info/nyct/maps/subwaymap.pdf>

JOURNEY TO THE STARS

“...easily the most beautiful planetarium show I have ever seen...”

Dennis Overbye
New York Times

Scientists observe the remains of stars, like the Helix Nebula, in which the star's core has already contracted into an extremely dense white dwarf.

NOW PLAYING: AN ALL-NEW HAYDEN PLANETARIUM SPACE SHOW

[▶ VIEW TRAILER + VIDEOS](#) | audio: 

SEE THE SHOW at AMNH

[▶ BUY TICKETS](#)

[▶ TELL A FRIEND](#)

SHOWTIMES

Monday–Friday:
Every half hour, 10:30 a.m.–4:30 p.m. except Wednesdays (first show on Wednesday begins at 11:00 a.m.)

Saturday–Sunday:
Every half hour, 10:30 a.m.–5:00 p.m.

ABOUT THE SHOW

[ABOUT THE SHOW](#) | [SYNOPSIS](#) | [ABOUT THE NARRATOR](#) | [NEWS](#)

A spectacular new Space Show, *Journey to the Stars*, narrated by Academy Award-winning actress Whoopi Goldberg, premiered on Saturday, July 4, 2009, in the Hayden Planetarium at the Frederick Phineas and Sandra Priest Rose Center for Earth and Space.

Featuring extraordinary images from telescopes on the ground and in space and stunning, never-before-seen visualizations of physics-based simulations, the dazzling new *Journey to the Stars* launches visitors through space and time to experience the life and death of the stars in our night sky, including our own nurturing Sun. Tour familiar stellar formations, explore new celestial mysteries, and discover the fascinating, unfolding story that connects us all to the stars. Those who come along for the journey may never see the night sky in the same way again.

Journey to the Stars is an engrossing, immersive theater experience created by the Museum's astrophysicists, scientific visualization, and media production experts with the cooperation of the National Aeronautics and Space Administration (NASA) and more than 40 leading scientists from the United States and abroad.

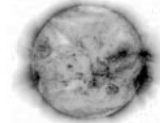
[MORE ABOUT...THE CURATORS](#) | [THE SCRIPT](#) | [THE SCORE](#) | [THE DIRECTOR](#) | [THE PRODUCTION TEAM](#)

EXPLORE THE SHOW

[▶ FOR KIDS](#)

[▶ FOR EDUCATORS](#)

DID YOU KNOW...



A star is a huge glowing ball of hot gas.

Because a star is so massive, the force of its gravity causes

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