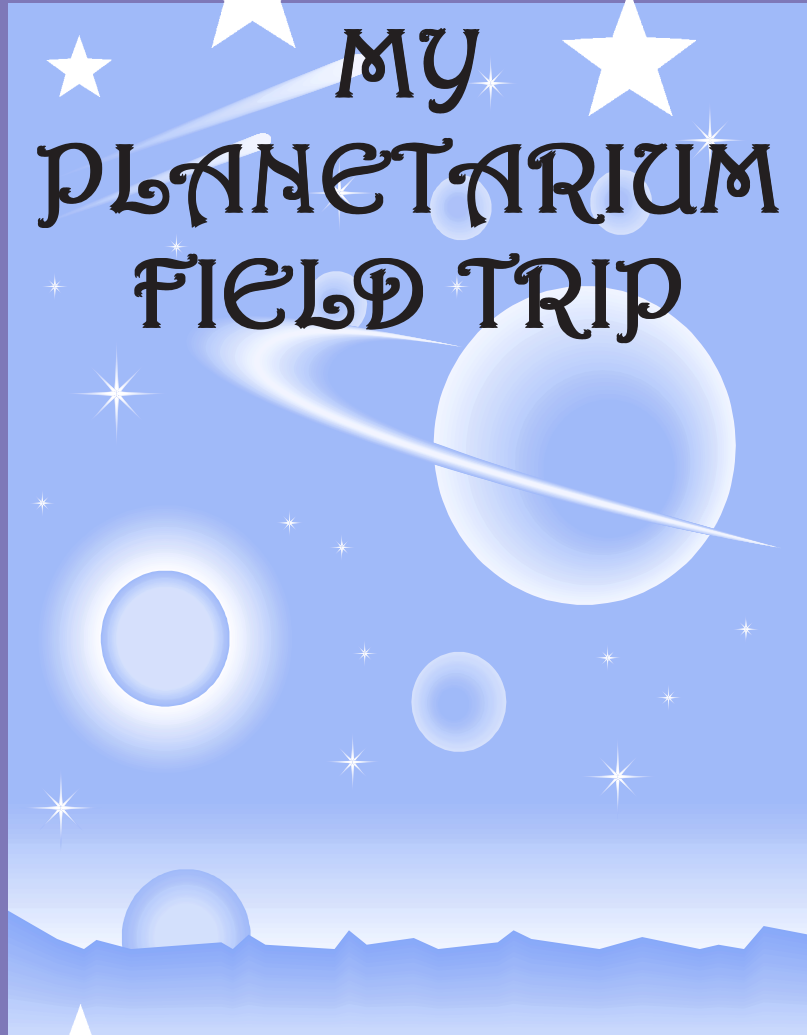




MY
PLANETARIUM
FIELD TRIP



Name _____

**Science information I want to remember
from this field trip:**













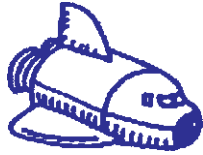


Our Sun is a star in the Milky Way Galaxy. If you were looking down on the Milky Way, it would look like a large pinwheel rotating in space. Our Galaxy is a spiral galaxy that formed approximately 14 billion years ago. Contained in the Milky Way are stars, clouds of dust and gas called nebulae, planets and asteroids. Stars, dust, and gas fan out from the center of the Galaxy in long spiraling arms. The Milky Way is approximately 100,000 light-years in diameter. Our solar system is 26,000 light-years from the center of the Galaxy. All objects in the Galaxy revolve around the Galaxy's center. One revolution takes 150 million years!

It is interesting to note that astronomers capitalize the "G" in galaxy when talking about our Milky Way! We can see only one galaxy from where we live with the unaided eye (besides the Milky Way.) With a telescope, we can see thousands of other galaxies.

Draw what you think the girl below is seeing through her telescope. Label your drawing!





The further from earth an object is, the longer it took or will take a spaceship to get there. Match the objects in the first column with the times in the second column by drawing lines to the time it will take to get to that object.

Saturn	1.5 years
Moon	12 years
Venus	5 months
Neptune	3.2 years
Mars	8 months
Mercury	3 days
Jupiter	3 months



Pluto ----- Because Pluto has a very irregular orbit, it will depend on where in its orbit Pluto is when we visit it. It will take a very long time to travel to Pluto.

IN YOUR OWN WORDS, tell us what you know about the underlined words in the paragraph below. Use extra paper if necessary.

The words "solar system" refer to the Sun and all of the objects that travel around it. These objects include planets, natural satellites such as the Moon, the asteroid belt, comets, and meteoroids. Our solar system has an elliptical shape and is part of a galaxy know as the Milky Way. The Sun is the center of the solar system. It contains 99.8% of all of the mass in our solar system. Consequently, it exerts a tremendous gravitational pull on planets, satellites, asteroids, comets, and meteoroids. It is believed that almost every star we see at night is the center of its own solar system.

DOC

Our moon is always shaped like a ball. Except at an eclipse, one-half is always lit. Sometimes we see the full lit surface of our moon and it looks to us like a bright circle (Like the O above.)

Sometimes we see only part of the lit half. Remember the word, DOC.

D: If the outer curved portion of the lit part of the moon we see is on your right, (like a D), we can see more of the lit part every night. Soon we will have a full moon.



O: This is the shape a full moon appears to us. We are seeing the full lit half. Soon we will see less each night.



C: If the outer curved portion of the lit part of the moon that we see is on your left, (like a C), then the part of the moon we see will become smaller each evening. Soon we will have a new moon, which is really the name for the moon when we cannot see it at all.



Should we have written DOC at the top like this? D O C
Explain why you think we should have or should not have!

For You To Finish!

There is one star in our solar system. It is called our _____

All the other stars are where?

Our planet is called _____ . Two motions


our planet has are _____ and _____ .

Our day and night are caused by which motion?

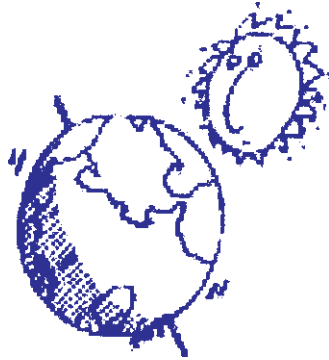
Our way of measuring a year is caused by which motion?

Our planet has _____ (a number) natural moon. This moon is always shaped like a _____ .

The word to help us remember moon shapes we see (moon phases) is _____ .

If the moon appears to us to be shaped like this , is the lit part we see getting bigger or smaller each evening?

Describe your favorite moon phase and tell why it is your favorite.



The sun is sending rays to earth and the earth is at its 23.5 degree tilt. Write a creative paragraph telling your teacher what the sun is thinking!!

OUR UNIVERSE

ACROSS:

4. Turning around something else.
6. Why Earth is different from other planets
8. Our star,
9. Determines the orbital patterns of planets.
10. An eclipse caused by the shadow of the moon.
11. Causes our seasons.
12. The different shapes of the moon we see.
14. Our only natural satellite.
17. A named group of stars we see in the night sky.
18. A sun with its planets, moon, comets, etc.
19. Groups of many stars, like the Milky Way.

DOWN

1. The amount of our moon always lit.
2. What our sun is.
3. Everything everywhere.
4. Spinning on an axis.
5. A meteoroid which hits earth.
7. The distance from earth to the sun.
13. The distance light travels in 365 days.
15. Our Galaxy.
16. An eclipse caused by the shadow of earth.

