



Astronomy Merit

1. Define *astronomy* and name two important astronomers.

Astronomy is the _____

Two astronomers are: _____

2. Explain the major differences between the following: planets, moons, stars, comets, asteroids, meteoroids, solar systems, and galaxies.

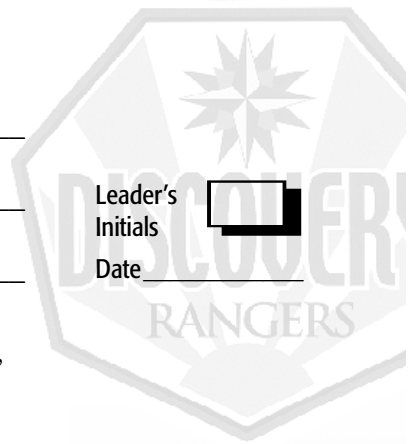
Planets: _____

Moons: _____

Stars: _____

Comets: _____

Asteroids: _____



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Meteoroids: _____

Solar Systems: _____

Galaxies: _____

Complete MWS 1 "Astronomy Facts."

- Find one interesting fact about each of the planets in our solar system. Draw a chart or make a display showing their differences in size and distance from the sun.

Mercury: _____

Venus: _____

Earth: _____

Mars: _____

Jupiter: _____

Saturn: _____

Uranus: _____

Neptune: _____

Pluto: _____

- Explain what is meant by *light-year*. Give the distance in light-years to the nearest star and estimated distance to the farthest galaxy.

A light-year is _____

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The nearest star is _____

The farthest galaxy is _____

5. Explain the difference between an asterism and a constellation.

A constellation is _____ that forms a picture of an animal, person, or other object.

An asterism is _____ that forms a picture that is easier to find and see.

Complete MWS 2 “Stars Search.”

6. Do ONE of the following:

- a. Find a total of at least five asterisms and/or constellations in the sky.
- b. Visit a planetarium or observatory.

7. Explain why the stars seem to twinkle and why the North Star is important in finding directions in the northern hemisphere.

Stars twinkle because _____

Planets do not twinkle because _____

The North Star can be used to locate _____

8. Sketch the moon’s position in the sky on three different nights during a one-week period. On one of those nights sketch its position once an hour for three hours. Answer these questions:

a. Did you observe a change in the moon’s position from night to night and hour to hour? _____

b. What direction does the moon travel? _____

c. What causes the moon to have different shapes, called *phases*? _____

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d. What causes the moon to “move” in the sky during the night? _____

Insert your sketches into your workbook.

9. Do ONE of the following:

- a. With a small telescope or binoculars, study the moon, stars, and planets on three different nights. Keep notes to compare what you observe each night when identifying each object.
- b. With the aid of an astronomy book, star chart, or web site, make drawings of the northern and southern skies as they look for the current season of the year, with at least five major constellations placed in their proper positions.

Put your notes or drawings on separate paper and insert them into your workbook.

10. Give three Scripture references regarding the stars, moon, planets, sun, constellations, etc.

- a. _____
- b. _____
- c. _____

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