

Name: _____ Date: _____

Our Solar System Unit Review Study Guide

Part 1: Fill in the blank spaces with the vocabulary words list below.

revolution	rotates	terrestrial	Earth	1 day	Apollo
moon	1 year	seasons	<u>gas giants</u>	atmosphere	

1. Earth has day and night because the Earth rotates on its axis.
2. The revolution of the Earth causes the four seasons.
3. The Earth is the third planet from the Sun.
4. Mercury, Venus, Earth, and Mars are the 4 terrestrial planets because they are made up of rocks and metals, are located closest to the sun, and have few or no moons.
5. Because of NASA's Apollo program, we know much more about the moon.
6. The Earth's atmosphere helps to support life by providing water, oxygen and protection from damaging rays from the sun.
7. The moon revolves around the Earth.
8. It takes 1 day for the Earth to rotate once.
9. Jupiter, Saturn, Uranus, and Neptune are the 4 gas giants because they are made up of gases, are located farthest from the sun, have multiple moons, and have rings orbiting them.
10. It takes 1 year for the Earth to revolve around the sun once.

Part 2: Match the following astronomer to his theory, belief, or contribution.

1. Aristotle 4 ☆ He believed the Earth was fixed and did not rotate, and was the center of the universe.
2. Galileo 3 ☆ He used math to prove that the sun, not the Earth, was the center of our solar system.
3. Copernicus 2 ☆ He was the first to use a homemade telescope to discover that Venus had phases just like the Earth's moon. He thought this proved that the Earth revolves around the sun and the sun is the center of the universe.
4. Ptolemy 1 ☆ During an eclipse of the moon, he noticed that the Earth's shadow on the moon was curved. This led him to believe that the Earth was rounded, not flat. He believed the sun and planets revolved around the Earth and the Earth was the center of the universe.

Part 3: Short Answer

1. The Earth's atmosphere helps the Earth by blocking most of the sun's damaging rays.
2. The Earth is the only planet that can support life because it has life-supporting water and an oxygen rich atmosphere.
3. A terrestrial planet is a planet made of rocks and metals, is close to the sun, and has few or no moons
4. A gas giant is a planet made up of gases, is located further from the sun, has multiple moons and rings orbiting around them.
5. The moon changes shape because of its position relative to the Earth and sun.

6. Circle the two words below that are separated by the most distance. Underline the two words that are the closest in distance.

Mars and Earth

Earth and the sun

Earth and the moon

the sun and Neptune

Part 4: Fill in the blanks with the words from the word box. All of the words will be used more than once.

moon	Earth	sun
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Sun 1. It is approximately 4.6 billion years old.

moon 2. It is $\frac{1}{4}$ the diameter of the Earth and $\frac{1}{80}$ the mass of the Earth.

Earth 3. It is 1 of 8 planets in the solar system.

Sun 4. It is an average-sized yellow star.

Earth 5. It is the 3rd planet from the sun and 1 of the 4 terrestrial planets.

moon 6. It is a rocky satellite of the Earth.

Sun 7. Its surface is not solid; it is made of gases like helium and hydrogen.

moon 8. It has extreme temperatures because there is almost no atmosphere, no water, and no life.

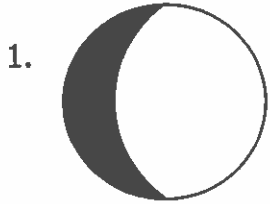
Sun 9. It is about 110 times the diameter of the Earth. More than a million Earths could fit inside it.

Earth 10. It can support life because it has life-supporting water and an oxygen-rich atmosphere.

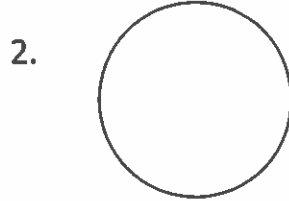
Earth

1. It's a geologically active planet with a surface that is constantly changing.

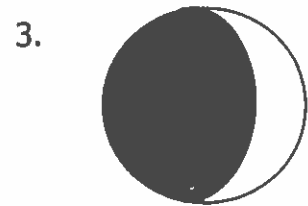
Part 5: Looking at the white, "glowing" parts of each moon below. Label each moon: new moon, quarter, crescent, gibbous, and full moon in the box below the moon.



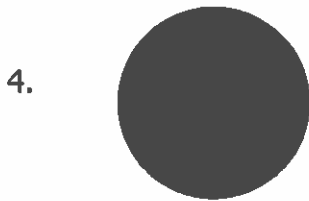
gibbous



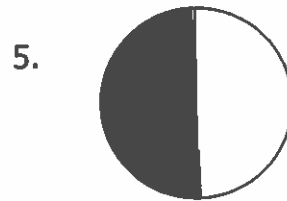
full



Crescent

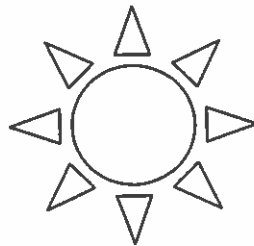


New

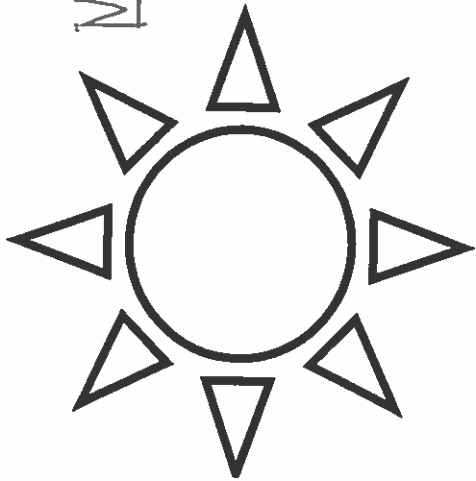


quarter

6. Where would the moon be if there was a full moon? Shade the moon to show what it would look like from Earth.



Part 6: On the blank spaces below, write the names of the eight planets in our solar system based on their position from the sun. Begin by labeling the first blank space with the planet that is closest to the sun and finish by labeling the eighth blank space with the planet that is farthest from the sun. Use the word bank below to help you. Each word will only be used one time.



Mercury	Jupiter	Neptune
Mars	Saturn	Venus

Mercury
1st

Earth
3rd

Jupiter
5th

Uranus
7th

Venus
2nd

Mars
4th

Saturn
6th

Neptune
8th

Name the terrestrial planets: Mercury, Venus, Earth, Mars

Name the gas giants: Jupiter, Saturn, Uranus, Neptune

Part 7: On the blank spaces below, write the names of the eight planets in our solar system based on their size. Begin by labeling the first blank space with the planet that is largest in size and finish by labeling the planet that is smallest in size. Use the word bank below to help you. Each word will only be used one time.

Mercury	Jupiter	Neptune
Earth	Uranus	Venus

Jupiter
#1 (largest)

Saturn
#2

Uranus
#3

Neptune
#4

Earth
#5

Venus
#6

Mars
#7

Mercury
#8 (smallest)