

Name: _____ Date: _____

SOLAR SYSTEM STUDY GUIDE

Vocabulary

Word	Definition
gas giant	a very large planet made up mostly of gases
planet	a large body in space that moves around a star
telescope	a tool that makes distant objects appear larger
solar system	the Sun, planets, moons, and other objects that orbit the Sun
axis	an imaginary line through the center of an object
constellation	a group of stars that forms a pattern
equator	a made-up line that circles Earth halfway between the North and South Poles
revolve	to move in a path around another object
rotate	to turn on a axis
star	a ball of hot gases that off light and energy
orbit	to move in a path around an object

Stars

1. A star's color tells you more information about the star's **temperature**.
2. **Blue** star = hot temperature
3. **Yellow** star = medium temperature
4. **Red** star = cooler temperature
5. Fill out the chart to compare planets and stars. Be sure to include at least 3 facts in each section.

Stars	Both	Planets
<ul style="list-style-type: none">• Stationary (Do not move)• Produce their own light• Can have orbiting planets• Large objects in the universe• Are made of gases	<ul style="list-style-type: none">• Are round in shape• Come in different colors• Come in different sizes• Appear as points of light in the night sky• Objects can orbit them	<ul style="list-style-type: none">• Orbit a star• Do not produce light• Can have orbiting moons• Are made of solids, liquids, and gases

6. Explain the difference between constellations and planets. Why do constellations stay in the same place in the sky, but planets move?

At night, the stars appear to move across the sky. As Earth rotates, the part of the sky that you see changes. The shape of the constellation does not change, but their place in the sky does. This is different than planets because planets orbit the Sun. A planets position in the sky changes as it orbits.

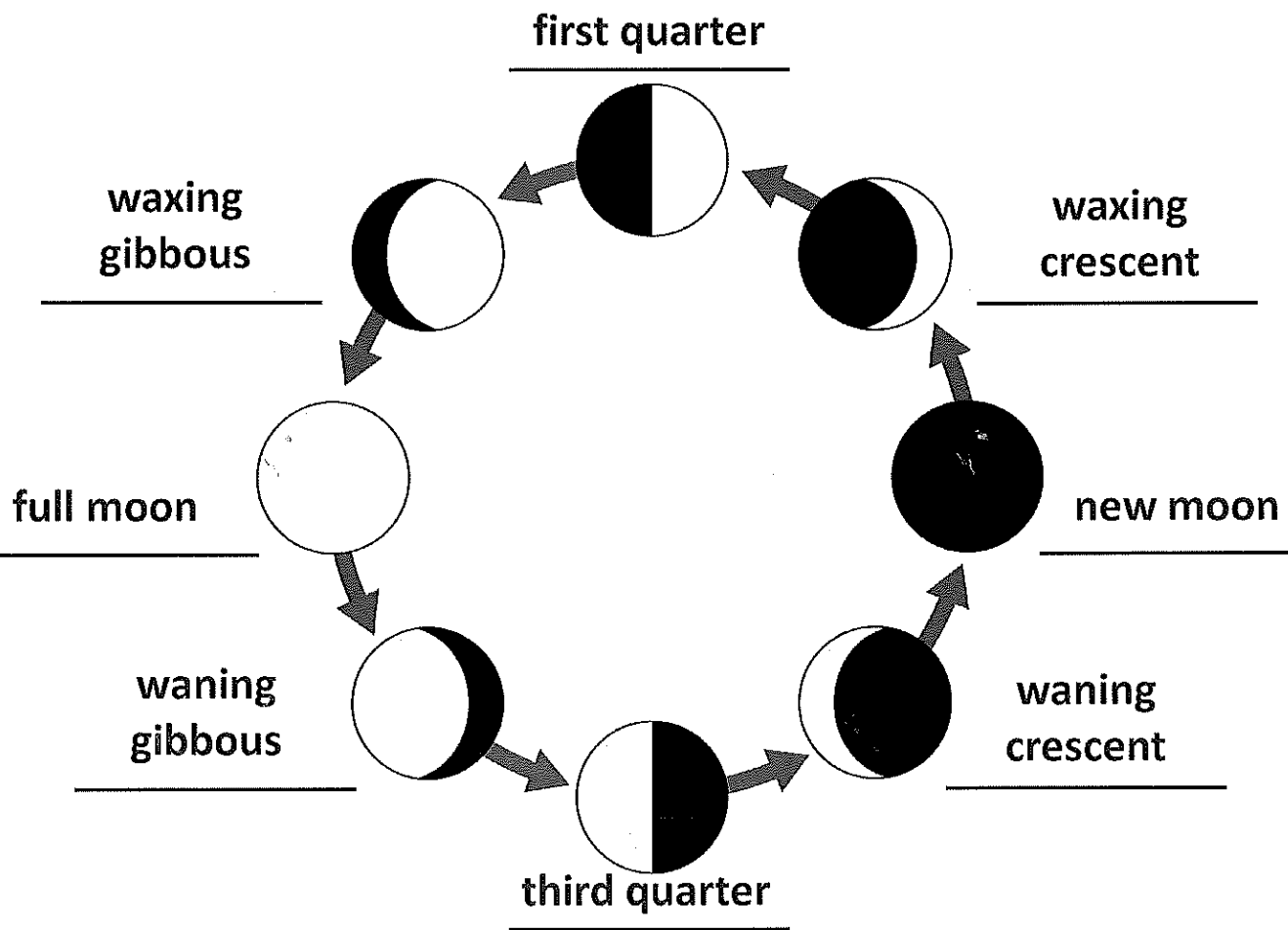
Day & Night

7. Explain how day and night occurs.

Day and night occur because Earth rotates on its axis as it revolves around the Sun. When the Earth is facing toward the Sun, it is daytime. When Earth is facing away from the Sun, it is nighttime.

Phases of the Moon

8. Label the phases of the Moon



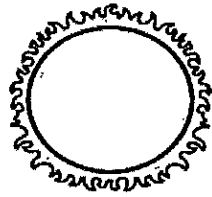
Seasons

9. Name two reasons why seasons occur.

- Earth's revolution around the Sun
- Earth's tilt

Planets

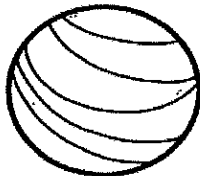
10. Label the planets in the correct order from the Sun.



SUN



MERCURY



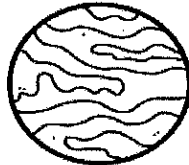
VENUS



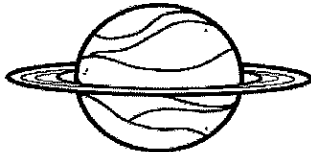
EARTH



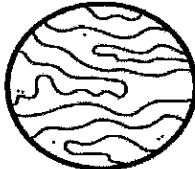
MARS



JUPITER



SATURN



URANUS



NEPTUNE
