

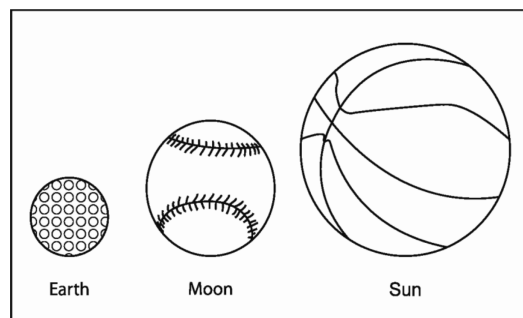
6.E.1.2 Credit Recovery

Name: _____

Date: _____

- A day on Saturn takes about 10 Earth hours. Which fact would *best* explain this short day?
 - Saturn is less dense than Earth.
 - Saturn is much farther from the Sun than Earth.
 - Saturn rotates more rapidly than Earth.
 - Saturn's orbit has greater eccentricity than Earth's.
- Venus is warmed by solar radiation, but its thick cloud cover increases the temperature because the clouds
 - prevent the escape of heat into space.
 - convert solar radiation into heat.
 - absorb short light wavelengths, leaving heat.
 - produce heat as they are pushed by strong winds.
- A major feature of the solar system is that as planets get farther away from the sun, they _____.
 - are warmer
 - have fewer moons
 - are smaller in diameter
 - have a longer revolution time
- Which of the following best describes the inner planets of the solar system?
 - Large gas planets with thick atmospheres
 - Small planets of ice with elliptical orbits
 - Dense, rocky planets with few moons
 - Barren planets with rings of gas and dust

- Dwight made this model using a golf ball, a baseball, and a basketball.



How could Dwight improve his model?

- Make the Moon smaller than Earth.
 - Use a flat object, such as a coin, for Earth.
 - Place Earth between the Moon and the Sun.
 - Place the Sun is between the Moon and Earth.
- Which of the following planets has the shortest orbit around the Sun?
 - Earth
 - Mars
 - Mercury
 - Venus
 - Mercury, the planet nearest to the Sun, has extreme surface temperatures, ranging from 465°C in sunlight to -180°C in darkness.

Why is there such a large range of temperatures on Mercury?

 - The planet is too small to hold heat.
 - The planet is heated on only one side.
 - The planet reflects heat from its dark side.
 - The planet lacks an atmosphere to hold heat.
 - Which of the following statements *best* describes how the four planets closest to the Sun are different from the next four planets in our solar system?
 - The four closest planets are more dense.
 - The four closest planets have more moons.
 - The four closest planets have greater diameters.
 - The four closest planets take longer to complete one orbit.

9. The data table below compares four characteristics of the inner planets.

Characteristic	Planets			
	Mercury	Venus	Earth	Mars
Temperature	-184°C to 527°C	-450°C to 477°C	-89°C to 58°C	-143°C to 17°C
Mass (kilograms)	3.30×10^{23}	4.87×10^{24}	5.97×10^{24}	6.42×10^{23}
Diameter (kilometers)	4,854	12,112	12,751	6,788
Distance from sun (millions of kilometers)	58	108	150	228

Which of these statements *best* explains why Earth is the only inner planet that supports life?

- A. The other planets have too much mass.
 B. The other planets are too close to the sun.
 C. The other planets are either too hot or too cold.
 D. The other planets are either too big or too small.
10. Use the information below to answer the following question(s).

The Goldilocks Zone

Scientists report they have found a new planet that is similar to Earth. The planet revolves around the star Gliese 581, one of the closest stars outside our solar system. Data collected over a number of years shows that Gliese 581 wobbled. This wobble indicates that a planet is orbiting the star. The orbit appears to last about 13 Earth days. The planet is in a region the scientists call The Goldilocks Zone. This zone is at a distance from Gliese 581 where temperatures on the planet range from 0°C and 40°C. These temperatures suggest that the planet has some conditions similar to those on Earth.

The amount of time in one day on the new planet would be determined by

- A. its radius B. the tilt of its axis
 C. its period of rotation D. the cycle of its moons

11. The following table lists several characteristics of the inner and outer planets of our solar system.

Planet Characteristics

	Planet	Average Distance from Sun (kilometers)	Surface	Diameter (kilometers)
Inner Planets	Mercury	58,000,000	Rocky	4,879
	Venus	108,000,000	Rocky	12,104
	Earth	150,000,000	Rocky	12,756
	Mars	228,000,000	Rocky	6,794
Outer Planets	Jupiter	778,000,000	Gaseous	143,000
	Saturn	1,427,000,000	Gaseous	120,500
	Uranus	2,871,000,000	Gaseous	51,100
	Neptune	4,498,000,000	Gaseous	49,500

Which statement describes a similarity in the table?

- A. The inner and outer planets have the same surface type.
 B. The inner and outer planets are the same size in diameter.
 C. The inner and outer planets have the same number of planets.
 D. The inner and outer planets are the same distance from the sun.
12. In many ways, Earth is like other planets in the solar system. In which way is Earth different?
- A. Earth has a moon. B. Earth orbits the sun.
 C. Earth has mountains. D. Earth has lots of water.