



UNIT 8

Grade 6 Science EOG Quiz

Astronomy and Space Science - (S6E1.a.) Scientific Views Of Universe, (S6E1.b.) Solar System Position, (S6E1.c.) Compare And Contrast Planets, (S6E1.d.) Motion Of Objects Sky, (S6E1.e.) Gravity As A Force In The Solar System, (S6E1.f.) Comets, Asteroids, And Meteors, (S6E2.a.) Earth, Moon, And Sun, (S6E2.b.) Solar And Lunar Eclipses, (S6E2.c.) Earth Tilt And Solar Energy

Student Name: _____

Date: _____

Teacher Name: BRITTANY DUDEK

Score: _____

1) Many years ago, people believed that the Earth was the center of the solar system because from Earth, it looks as if the stars and the Sun

- A) rotate around the Earth.
- B) are controlled by the Earth.
- C) are much smaller than the Earth.
- D) move more quickly than the Earth.

2) What did scientists use to come up with a theory about how the universe was created?

- A) observation and opinion
- B) scientific evidence and observation
- C) scientific experimentation and opinion
- D) scientific evidence and experimentation

3) Which theory do scientists believe MOST LIKELY explains the creation of the universe?

- A) Big Bang Theory
- B) Radiation Theory
- C) Red Shift Theory
- D) Butterfly Effect Theory

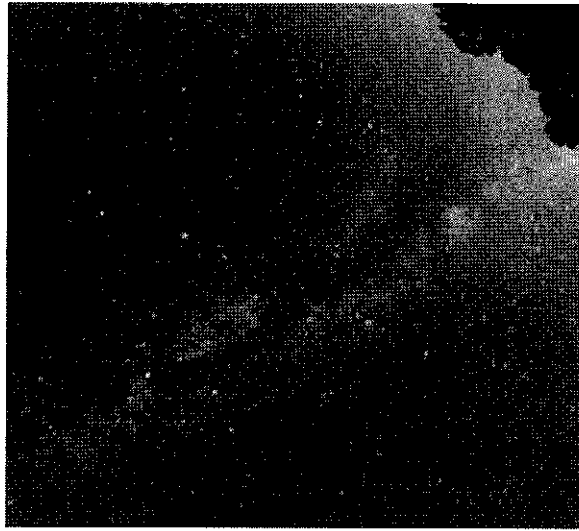
4) Scientists used to believe that the earth was the center of the universe. Which invention was primarily responsible for obtaining evidence against this?

- A) sextant
- B) astrolabe
- C) Hubble telescope
- D) optical telescope

5) Which list is organized from SMALLEST to LARGEST?

- A) Planet, Galaxy, Solar System, Universe
- B) Solar System, Planet, Universe, Galaxy
- C) Universe, Solar System, Planet, Galaxy
- D) Planet, Solar System, Galaxy, Universe

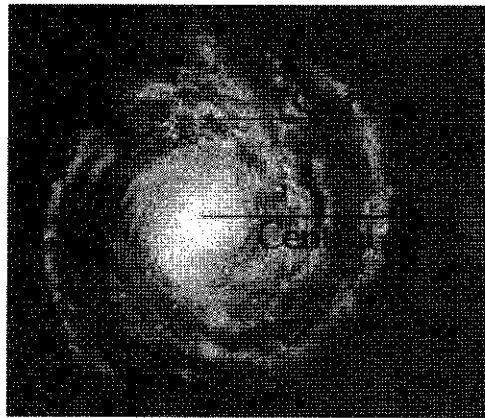
6)



What is the name of the galaxy where Earth is located?

- A) Andromeda
- B) Sun Galaxy
- C) Comet Galaxy
- D) Milky Way Galaxy

7)



What can you tell about the location of the Sun from this illustration of the Milky Way?

- A) It is outside of the Milky Way.
- B) It is near an outer arm of the Milky Way.
- C) It is on the right side of the Milky Way.
- D) It is within the Central Bulge of the Milky Way.

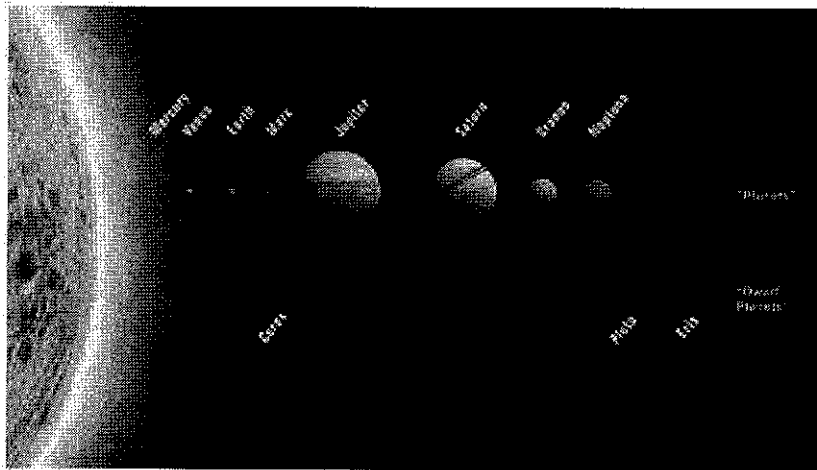
8)

| Inner Planets | Outer Planets | Dwarf Planets |
|---------------|---------------|---------------|
| Mercury | Jupiter | Pluto |
| Venus | Saturn | Ceres |
| Earth | Uranus | Eris |
| Mars | Neptune | |

The inner planets are DIFFERENT from the outer planets mainly because they are

- A) colder.
- B) larger.
- C) comprised of gas.
- D) comprised of rock.

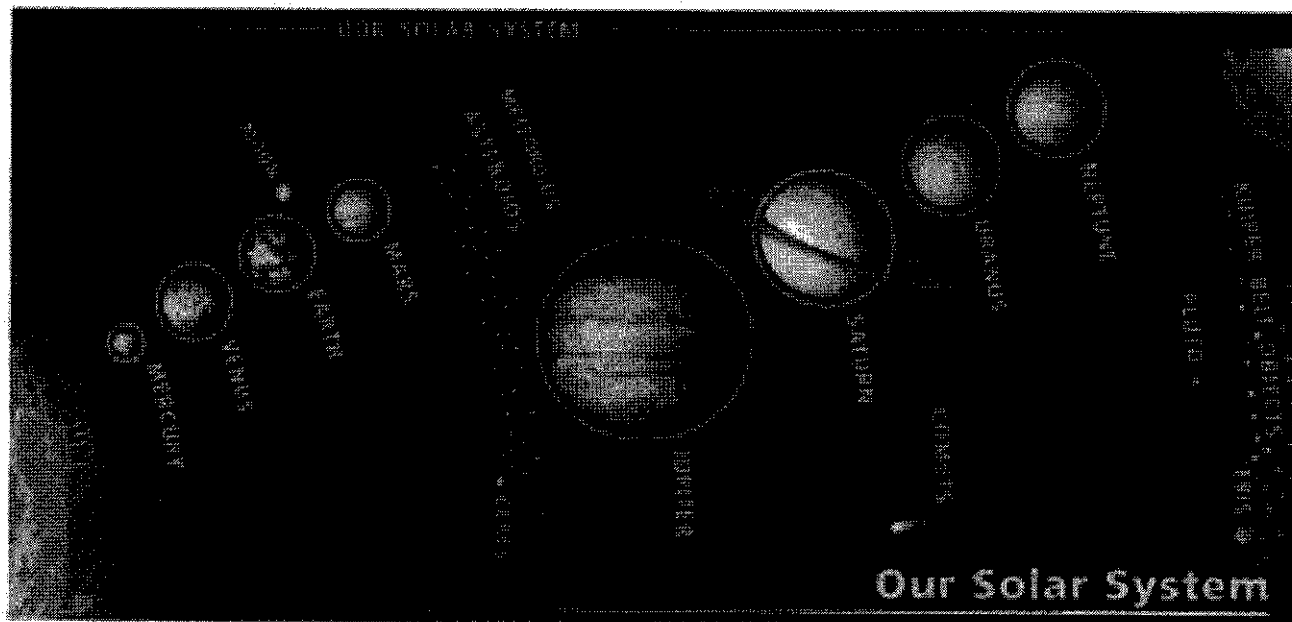
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Jupiter, Saturn, Uranus, and Neptune: what is one reason why life probably does not exist on these four planets?

- A) They have no gravity.
- B) They are the gas planets.
- C) They are the giant planets.
- D) They are the rocky planets.

10)



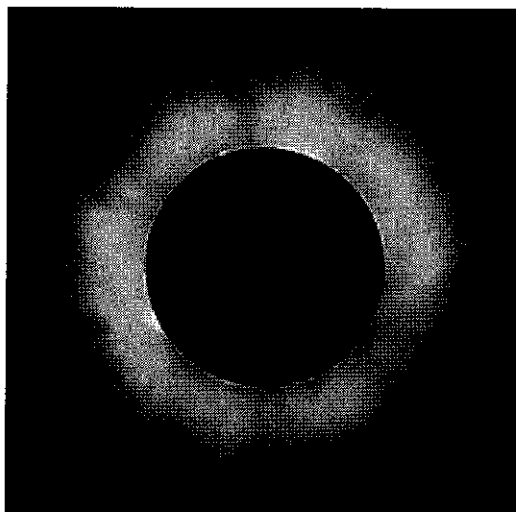
What can you tell about Jupiter from the diagram?

- A) It is colder there than on Earth.
- B) It has more moons than Earth does.
- C) Its days are shorter than the days on Earth.
- D) Its atmosphere is similar to Earth's atmosphere.

11) Rings are a characteristic of

- A) large planets only.
- B) small planets only.
- C) both large and small planets.
- D) neither large nor small planets.

12)



The sun and moon are very different sizes, but often appear to be the same size. During a solar eclipse, our tiny moon can totally block the giant sun because of

- A) the dark side of the moon facing Earth.
- B) the large shadow Earth casts on the sun.
- C) their differing distances from the Earth.
- D) the reflection of light waves from the sun.

14) The stars in the night sky look as if they are slowly moving because

- A) the Earth is moving.
- B) they rotate around the Sun.
- C) they rotate around the Earth.
- D) the Sun blocks them out at times.

15) Gravity on the moon is about $\frac{1}{6}$ th the gravity felt on the earth. This is because

- A) the moon is so far away from the earth.
- B) the moon is much less massive than the earth.
- C) the earth has a molten core and the moon doesn't.
- D) the moon is so much further from the sun than the earth.

16) Why does Earth orbit the Sun rather than any other body in the solar system?

- A) The mutual repulsions among all the planets hold Earth in its orbit.
- B) The Earth is closer to the Sun than other bodies in the solar system.
- C) The Sun is the most massive object; gravitational attraction is related to mass.
- D) The rotational motions of all the planets, including Earth, cause them to remain in its orbit around the Sun.

17) Almost everything in the universe orbits around a central object. The planets orbit the sun and moons orbit planets. The force MOST responsible for these orbits is

- A) gravity.
- B) inertia.
- C) strong force.
- D) electromagnetic.

18) Which force determines Earth's path around the Sun?

- A) nuclear force
- B) magnetic force
- C) gravitational force
- D) electrostatic force

19)

several miles in diameter
originate beyond the outer planets
thought to have struck early Earth
bodies of ice, stone, and organic compounds
may have created major changes to Earth's early climate

The list above describes _____ that are thought to have struck Earth billions of years ago and helped to modify the climate, atmosphere, and oceans of this planet.

- A) asteroids
- B) comets
- C) meteors
- D) stardust

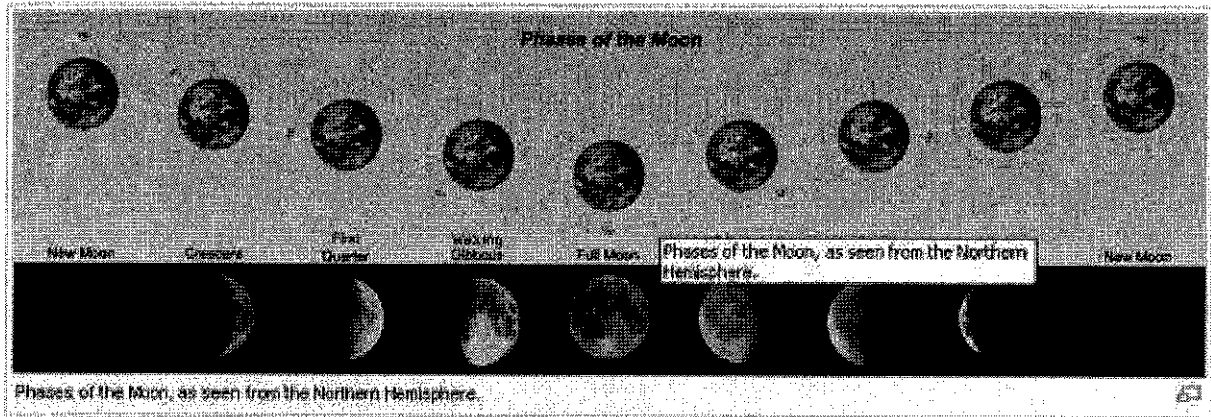
20) A meteorite is DIFFERENT from a comet mainly because it

- A) has a tail of ice and dust.
- B) enters the Earth's atmosphere.
- C) has a nucleus made of snow and rock.
- D) is found in orbit between Mars and Jupiter.

21) The tail of a comet usually faces

- A) toward the Sun.
- B) away from the Sun
- C) toward the Earth.
- D) away from the Earth.

22)



During a full moon, _____ of the moon is facing Earth.

- A) none
- B) a quarter
- C) the dark side
- D) the bright side

23) What causes the phases of the moon as observed from the Earth?

- A) Filtering of the light from the moon due to the Earth's atmosphere.
- B) The tidal forces of the Earth's oceans change the appearance of the moon.
- C) Change in distance of the moon from the Earth as it orbits in an elliptical orbit.
- D) The angle of light from the sun as it reflects off the moon and viewed from the Earth's surface.

24)



This is a _____ gibbous moon.

- A) crescent
- B) new
- C) waning
- D) waxing

25) What is the phase of the moon when the moon is positioned between the sun and the earth?

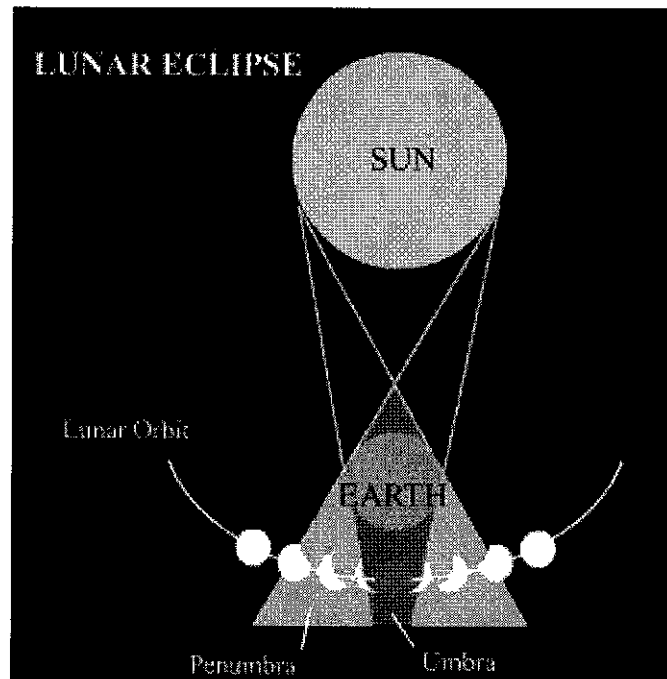
- A) new moon
- B) full moon
- C) half moon
- D) waxing crescent

26) Which is the correct alignment for a solar eclipse?

- A) sun - moon - Earth
- B) moon - sun - Earth
- C) Earth - sun - moon

D) moon - Earth - sun

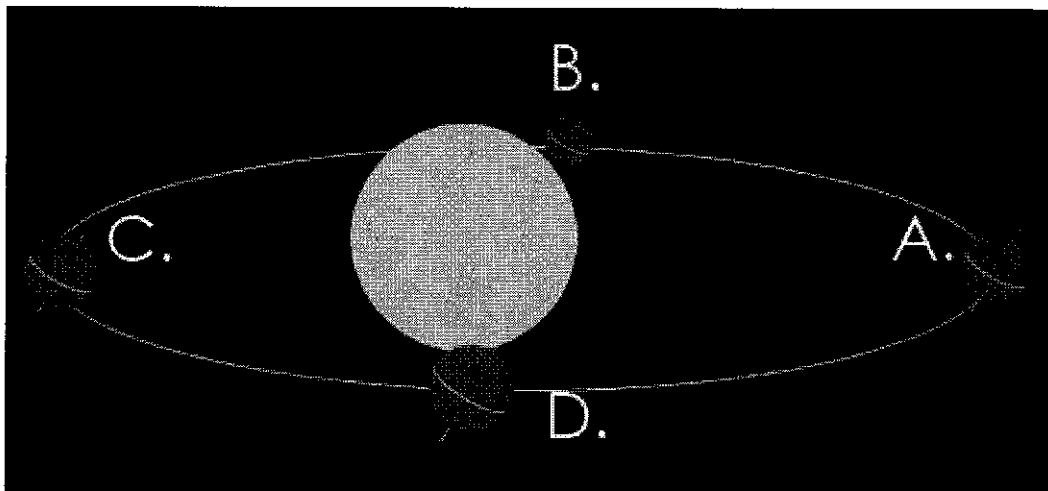
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You can tell from this diagram that a complete lunar eclipse occurs when the Moon is

- A) closer to the Sun than the Earth.
- B) in any place during its lunar orbit.
- C) in the umbra, the darker part of the Earth's shadow.
- D) in the penumbra, the lighter part of the Earth's shadow.

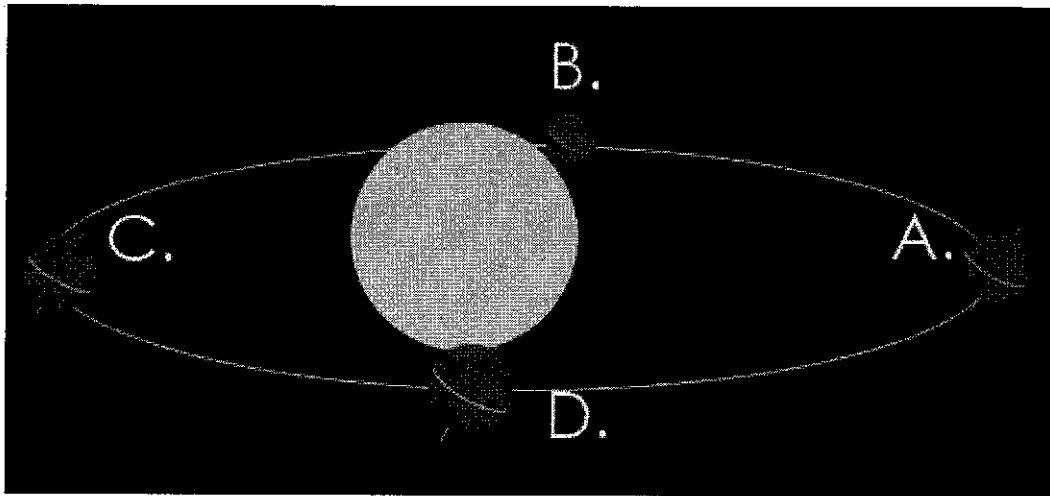
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If you live in the southern hemisphere, what season would you be experiencing in position C this diagram?

- A) Fall
- B) Summer
- C) Winter
- D) Spring

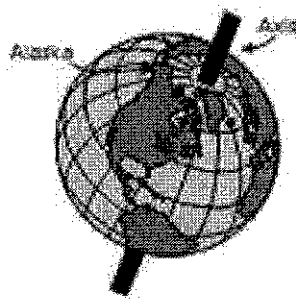
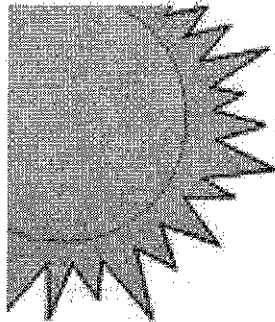
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As Earth spins on its axis, producing night and day, it also moves about the Sun in an elliptical orbit that requires about 365 $\frac{1}{4}$ days to complete. The Earth's axis is tilted with respect to its orbital plane. When the earth's axis points towards the sun, it is _____ for that hemisphere.

- A) day
- B) night
- C) summer
- D) winter

30)



Which factor has the biggest impact on Earth's seasons?

- A) Earth's revolution.
- B) Earth's elliptical orbit.
- C) Earth's tilt on its axis.
- D) Earth's distance from the Sun.