



Grade 6 Science EOG Quiz

Astronomy and Space Science - (S6E2.a.) Earth, Moon, And Sun, (S6E2.b.) Solar And Lunar Eclipses

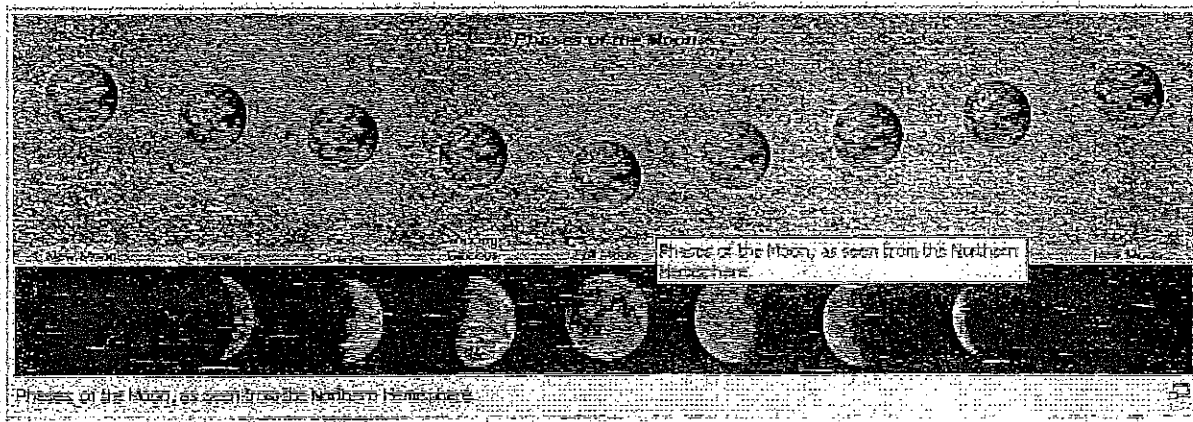
Student Name: _____

Date: _____

Teacher Name: Trony Dixon

Score: _____

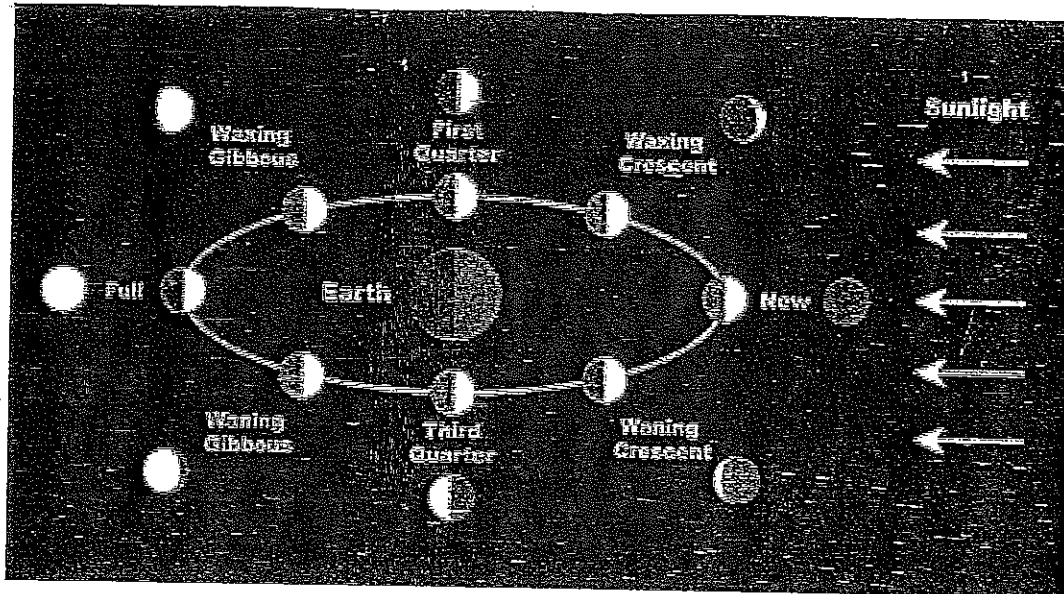
1)



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

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

2)



During a new moon, the moon is

- A) in between Earth and the sun.
- B) in front of the sun, in back of Earth.
- C) in front of Earth, in front of the sun.
- D) alongside Earth and in front of the sun.

3) 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.

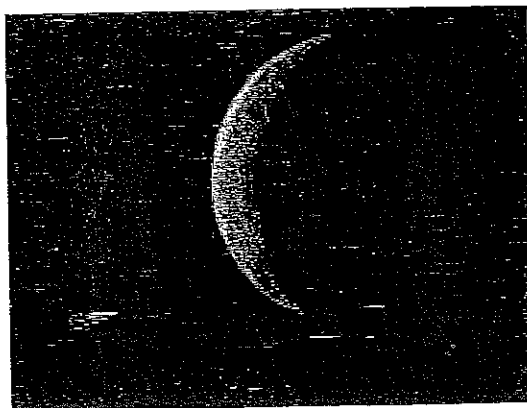
4)



This is a _____ gibbous moon.

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

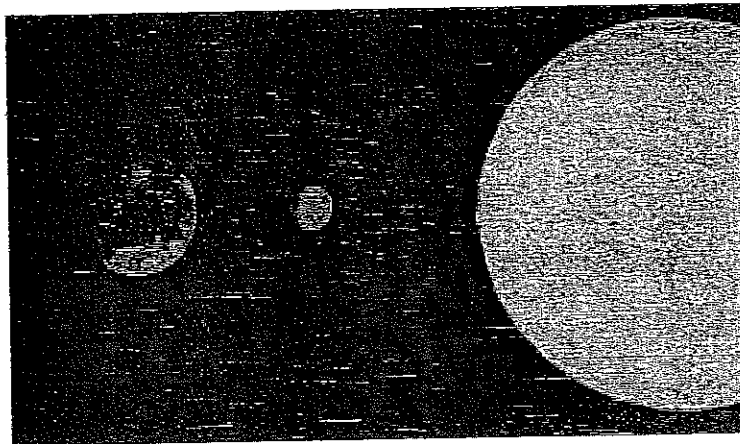
5)



This is a _____ crescent moon.

- A) new
- B) old
- C) quarter
- D) waxing

6)



The phases of the moon are caused by

- A) the moon revolving around the sun and Earth.
- B) Earth revolving around the sun and the sun's light being reflect off the moon.
- C) the moon revolving around Earth and the moon reflecting sunlight towards Earth.
- D) the moon revolving around Earth with sunlight reflecting off of Earth towards the moon.

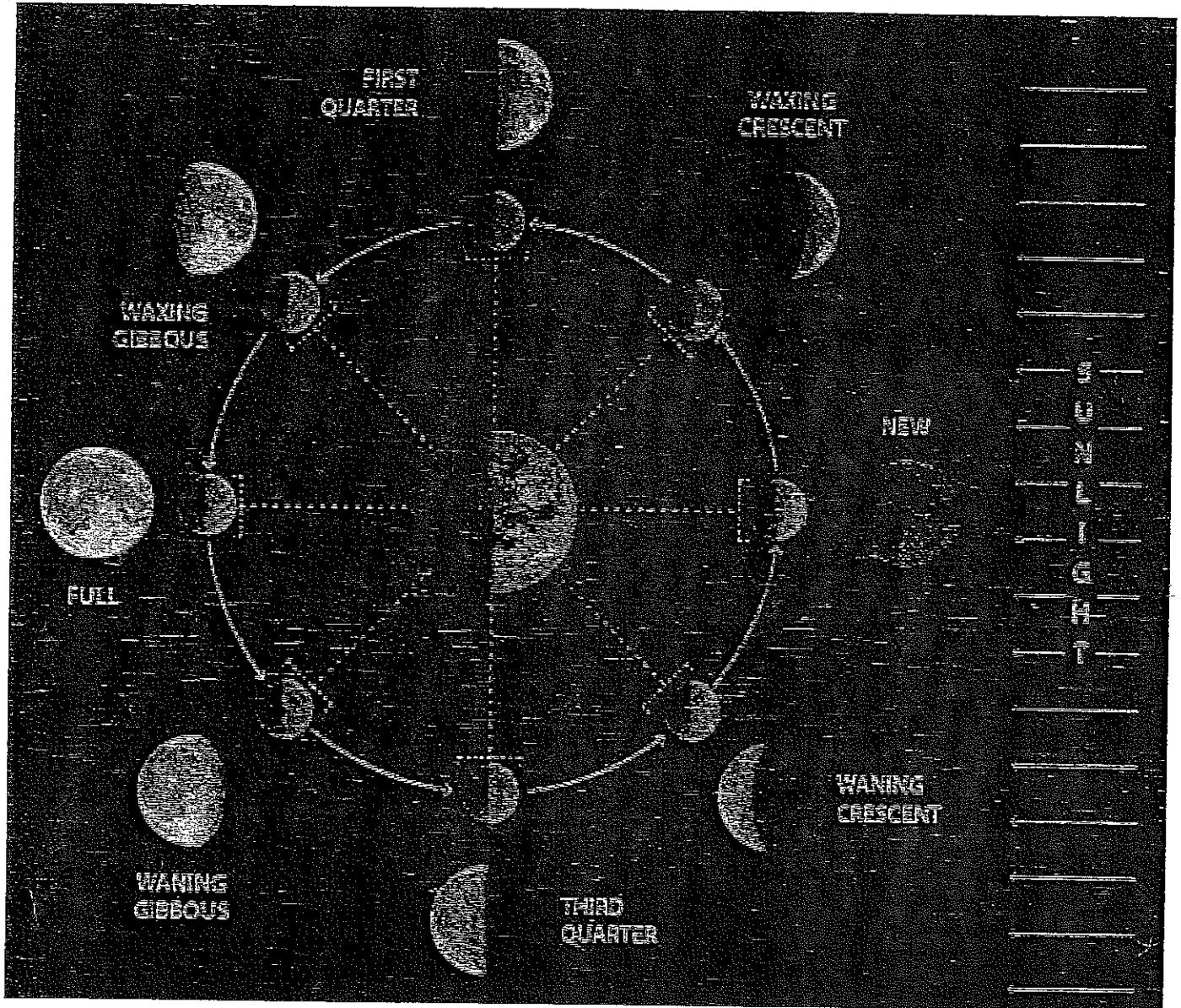
earth?

7) What is the phase of the moon when the moon is positioned between the sun and the

- A) new moon
- B) full moon

- C) half moon
- D) waxing crescent

8)

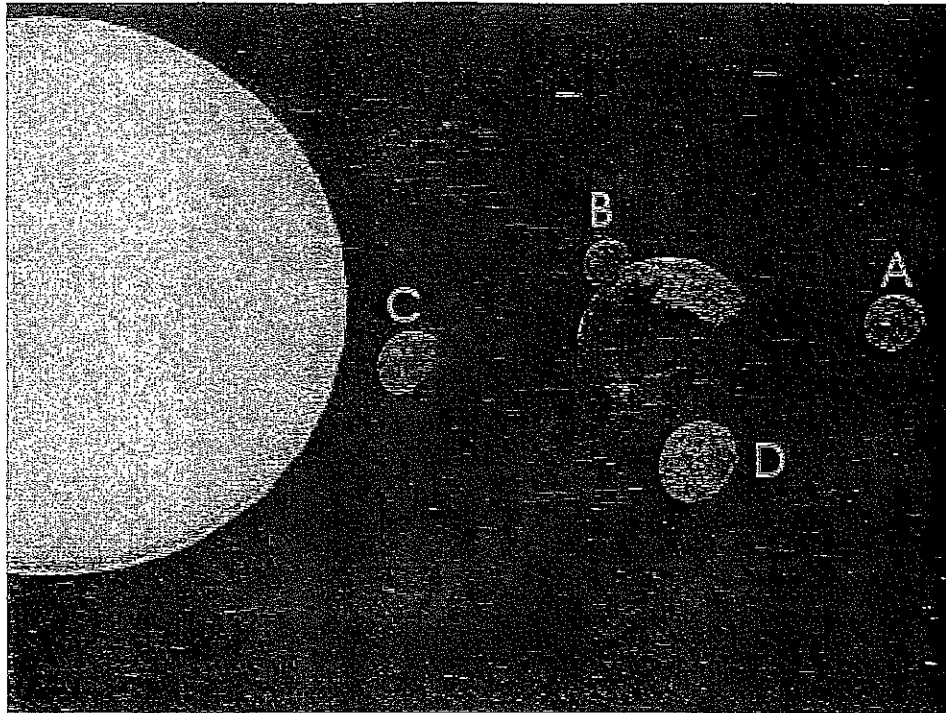


When Earth is between the Moon and the Sun, the fully lit face of the Moon is seen from Earth. This phase of the Moon is called a _____ moon.

- A) crescent
 - B) full
 - C) gibbous
 - D) new
- 9) In which phase is the full illuminated face of the Moon visible on Earth?
- A) New moon
 - B) Full moon

- C) Waning gibbous
- D) Waxing crescent

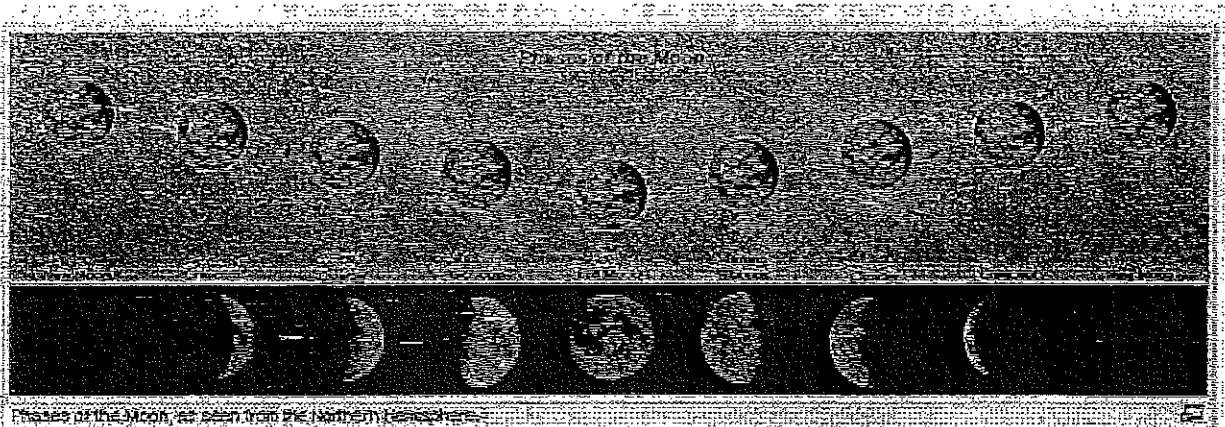
10)



Which location of the moon relative to the sun and earth may produce a waning (getting smaller nightly) half moon?

- A)
- B)
- C)
- D)

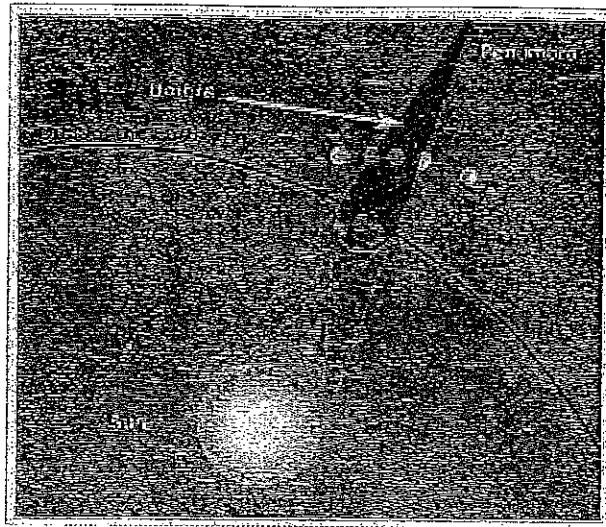
11)



There is a pattern to the phases of the moon. The time between one full moon to another is about

- A) one year.
- B) one month.
- C) two weeks.

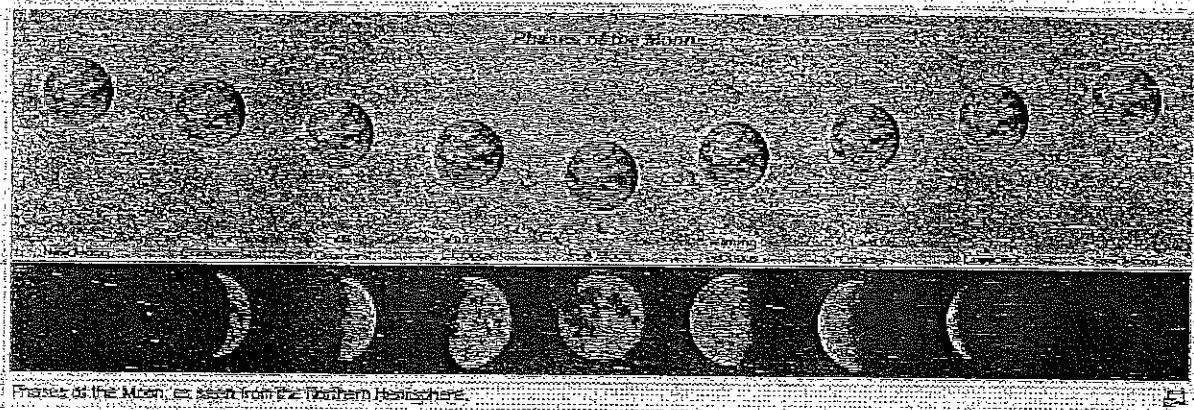
17)



This diagram shows a lunar eclipse. During a lunar eclipse, the Earth is

- A) behind the Sun and the Moon.
- B) in between the Sun and the Moon.
- C) in front of the Sun and the Moon.
- D) next to the Sun but not the Moon.

18)



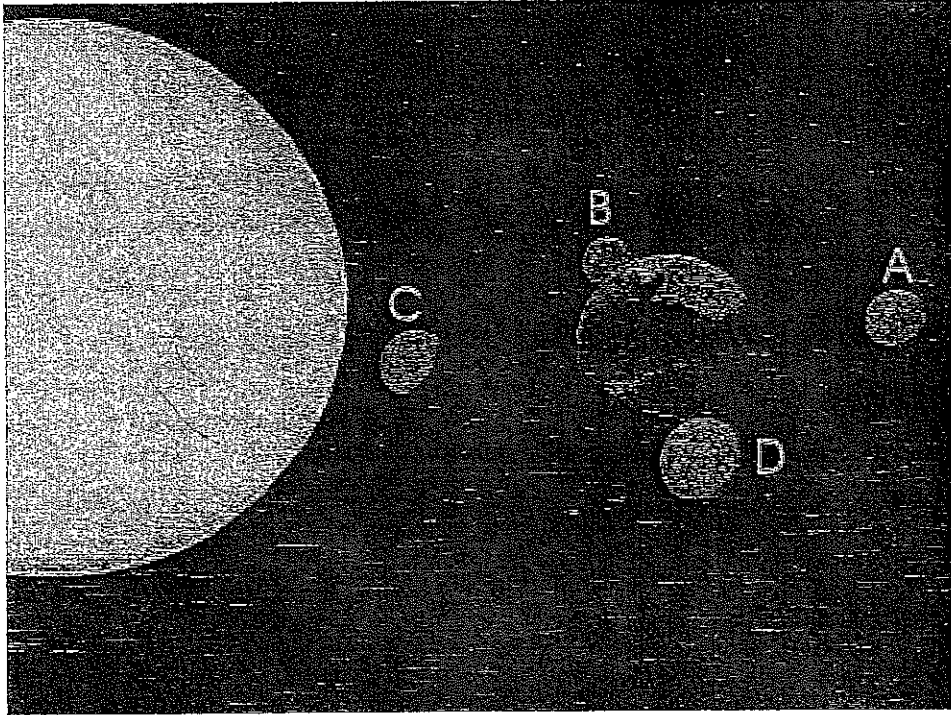
A solar eclipse can ONLY occur when the moon is in which phase?

- A) New Moon
- B) Full Moon
- C) Quarter Moon
- D) Crescent Moon

19) 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

20)



Which location of the moon relative to the sun and earth may produce a lunar eclipse?

- A)
- B)
- C)
- D)

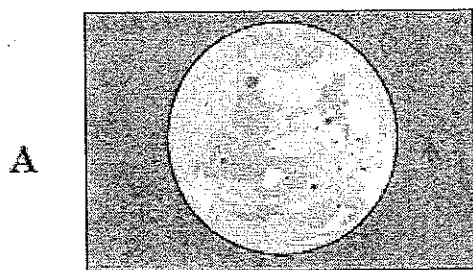
6th Grade Science

Sample Assessment Items S6E3d.Tides

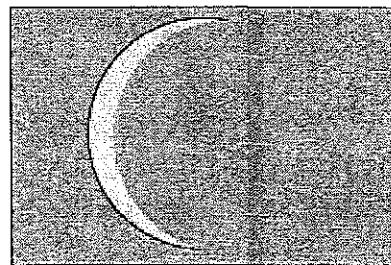
1 The Moon has the greatest effect on Earth's _____.

- A. year*
- B. seasons*
- C. ocean tides*
- D. daylight hours*

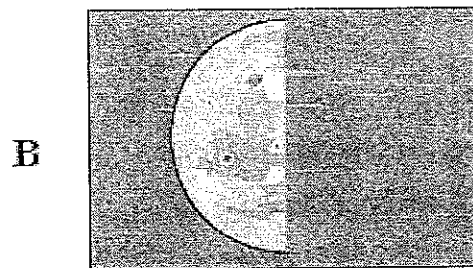
2 During which of these phases of the moon will the tides be highest?



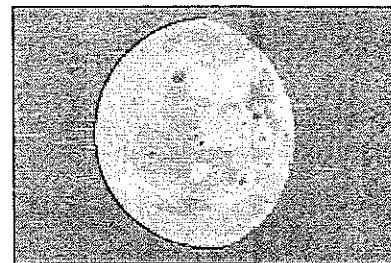
Full Moon



Crescent Moon



Quarter Moon



Gibbous Moon

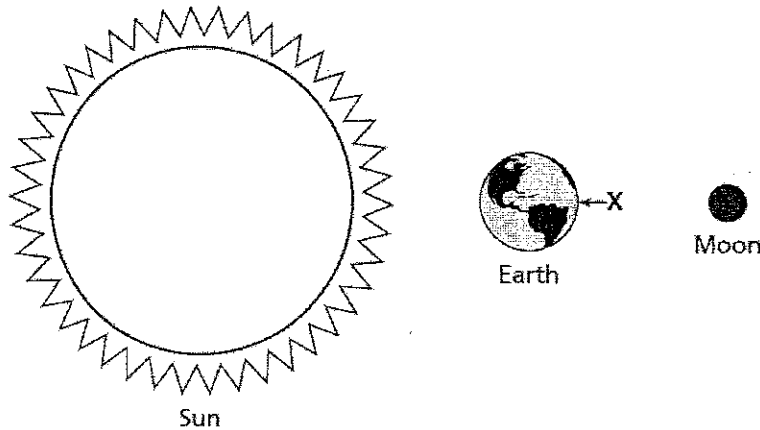
3 On most ocean shorelines, the water rises slowly and covers the land twice a day. Then it slowly falls back. What is this movement called?

- A. current*
- B. wave*
- C. tide*
- D. drift*

6th Grade Science

Sample Assessment Items S6E3d.Tides

A diagram of the sun, Earth, and the moon is shown below.



4 When the sun, Earth, and the moon are aligned in the positions shown in the diagram, what type of ocean tide occurs at location X?

- A. lowest high tides
 - B. highest high tides
 - C. red tides near the coast
 - D. rip tides near the coast
-

5 The ocean's tides are caused by _____.

- A. strong winds
 - B. heat from the Sun
 - C. the Moon's gravity
 - D. vibrations within Earth
-

6 High spring tides generally result from _____.

- A. heavy spring rains
 - B. thawing polar ice caps
 - C. mild earthquake activity
 - D. the alignment of Earth, the Moon, and the Sun
-

7 What causes the tides in Earth's oceans?

- A. rotation of the Sun
 - B. solar energy from the Sun
 - C. Earth's revolution around the Sun
 - D. gravity due to the Sun and the Moon
-

6th Grade Science

Sample Assessment Items S6E3d.Tides

8 Why are tides continually rising and lowering every day?

- A. because deep ocean currents are constantly changing^o
 - B. because the position of the Moon is constantly changing^o
 - C. because rates of evaporation and precipitation are constantly changing^o
 - D. because the direction of the wind over the ocean is constantly changing^o
-

9 Why does the ocean cover different amounts of the beach at different times of the day?

- A. because the Moon's gravity pulls the ocean, causing it to rise and fall^o
 - B. because Earth wobbles as it rotates, causing the ocean to rise and fall^o
 - C. because ocean currents change, adding sand to and removing sand from the beach^o
 - D. because the sand is able to absorb more water as the temperature increases, lowering the ocean level^o
-

10 What is the main cause of ocean tides?

- A. energy from the sun^o
 - B. rotation of the earth^o
 - C. change in water temperature^o
 - D. gravitational pull of the moon^o
-

11 Draw a diagram of the Earth, Sun, and Moon that would cause the highest tides.

12 Explain how gravity affects the Earth's tides.

13 Compare and Contrast a Spring Tide and a Neap Tide (include the positions of the Sun, Moon, and Earth).

13. Between what two planets is the asteroid belt located?
 a.) Mars and Saturn b.) Earth and Mars
 c.) Jupiter and Saturn d.) Mars and Jupiter
14. According to the big bang theory, all contents of the universe were gathered together under extreme _____ in a very tiny spot.
 a.) pressure b.) density
 c.) temperature d.) all of the above
15. Of the following, which is the largest?
 a.) Sun b.) galaxy
 c.) Earth d.) solar system
16. Which of the following have NOT been done by humans?
 a.) visited the Moon b.) visited Mars
 c.) stayed at the International Space Station d.) orbited Earth
17. Which of the following statements about the Sun is TRUE?
 The Sun is _____.
 a.) a large yellow planet b.) in orbit around the Earth
 c.) the center of the Universe d.) an average sized star
18. Why do astronauts in orbit feel weightless?
 a.) They are falling toward Earth. b.) They are falling away from Earth.
 c.) There is no air pressure in orbit c.) There is no gravity while in orbit
19. What is the Solar System made of?
 a.) stars b.) the Sun and planets
 c.) the Sun, planets and moons d.) the Sun, planets, moons and smaller objects
20. If a spacecraft travels from Earth to the edge of the Solar System, what will happen to the gravitational pull between Earth and the spacecraft will _____.
 a.) become zero b.) increase
 c.) decrease d.) remain the same
21. Which of the following holds us to Earth's surface?
 a.) Earth's rotation b.) Earth's revolution
 c.) gravity d.) air pressure
22. _____ and _____ affect the force of gravity that one object has on another.
 a.) Mass and distance b.) Mass and weight
 c.) Mass and Volume d.) Mass and direction

Directions: Identify which statement below describes a comet, asteroid, or a meteor.

A. Comet

B. Meteor

C. Asteroid

23. A structure is considered to be like a large, dirty snowball. _____
24. Pieces of dust and rock that burn up in the Earth's atmosphere. _____
25. Composed of dust and rock mixed with frozen water, methane, and ammonia. _____
26. Considered harmless even though they can be observed, at times, from Earth. _____
27. Most of these are located between the orbits of Mars and Jupiter. _____

2nd semester Final Exam Study Guide

Use the Sepup textbook (Units E-G) or the red earth science book to answer the following statements.

1. Which of the following would NOT describe weather?

- a.) How many clouds there are in the sky
- b.) The amount of water pollution in a lake
- c.) The force of the wind through the trees
- d.) Whether it is raining or not

2. What is the difference between weather and climate?

3. Identify the following as true or false.

- a) Some parts of the earth receive more precipitation than other parts.
- b) The total amount of water on the earth stays the same through the ages.
- c) The water on the earth moves from place to place.
- d) The air pressure increases as you go up in the atmosphere.
- e) The atmosphere has different temperatures and pressures at different altitudes until it reaches space.
- f) The temperature in the atmosphere increases as it gets closer to the sun.
- g) Water can be either a solid or a liquid, but not a gas.

4. The air above the earth's surface is mostly made of what three gases?

5. The _____ powers Earth's water cycle.

6. Which of the following factors does NOT influence climate?

- a) Clouds
- b) Global wind patterns
- c) Soil composition
- d) The sun's energy

7. Most of the water on Earth is located in Earth's _____.

8. Clouds are mostly made of _____.

9. Ocean currents affect climates because they transfer _____ from one part of the world to another.
10. What causes the length of a shadow to change over the course of a day?
11. One day on Earth is the time it takes for _____.
12. What would cause a planet to have a shorter *day* than Earth?
13. What would cause a planet to have a longer *year* than Earth?

Use the table below to answer Questions 14 & 15

Average Amount of Precipitation (centimeters)

	Winter	Spring	Summer	Fall
Place A	20cm	24cm	21cm	20cm
Place B	0cm	42cm	6cm	5cm
Place C	2cm	1cm	1cm	2cm
Place D	35cm	40cm	39cm	37cm

14. a) Which place has the driest climate?
 b) Which place has the wettest climate?
15. Each place has an average annual temperature above 18 °C (64 °F). Which place is most likely to have a tropical climate?
16. Which of the following causes the ocean's tides?
 a) Earth's revolution around the Sun
 b) The gravitational pull between Earth and the Sun and the Moon
 c) The magnetic field between Earth's north and south poles
 d) Changes in atmospheric pressure

17. One cycle of the moon's phases lasts about one _____.

18. _____ % of the Moon is ALWAYS lit by the Sun.

19. There is a full moon on the 1st and 29th of the month. What phase is the moon on the 15th of the month?

- a) Quarter b.) New c.) Full d.)crescent

20. The phases of the Moon are caused by _____.

21. Which of the following results from the tilt of the Earth?

- a.) A bulge at the equator b.) A longer year every fourth year c) More daylight in summer than in the winter

22. What causes seasons on Earth?

23. Describe two things that would happen if the Earth revolved around the Sun more slowly.

24. What would happen if the Earth were tilted more on its axis?

25. Draw a diagram that best represents the position of the Earth, Moon, and Sun during a quarter Moon.

26. Draw a diagram that best represents the position of the Earth, Moon, and Sun during a New Moon.

27. Draw a diagram that represents the Earth, Moon, and Sun during the *most* extreme tides.

28. On which planet(s) would you weigh less than you weigh on Earth? Why?

29. _____ is the only planet tilted sideways on its axis.

30. What does the big bang theory tell us about our Universe?

31. The Milky Way is a _____ galaxy.

32. The _____ Model of the Universe states that the Earth is the center of our Universe. Early astronomers believed in this theory.

33. The _____ Model of the Universe states that the Sun is the center of the Universe.

34. Compared to other stars, our Sun is _____ in temperature and size. It is also _____ through its life cycle.

35. The Solar System is composed of the _____, _____, _____, and other small bodies.

36. Gravitational pull _____ as objects move away from each other.

37. Most energy for life on Earth comes from the _____.

38. _____ holds us to Earth's surface.