

Test Name: TAKS Review 8.12 and 8.13

Your Name: _____

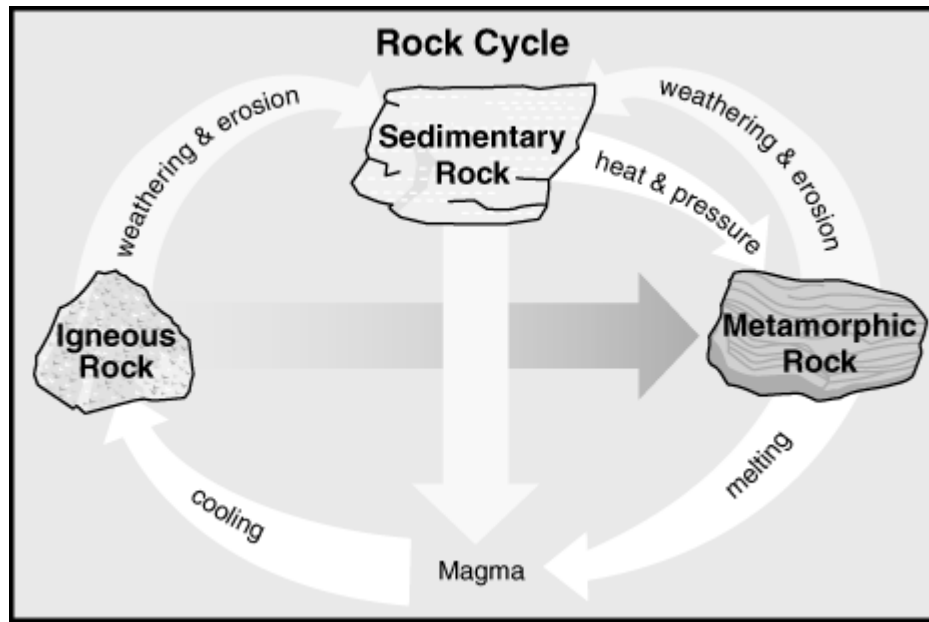
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Teacher: _____

Date: _____

Class Name: _____

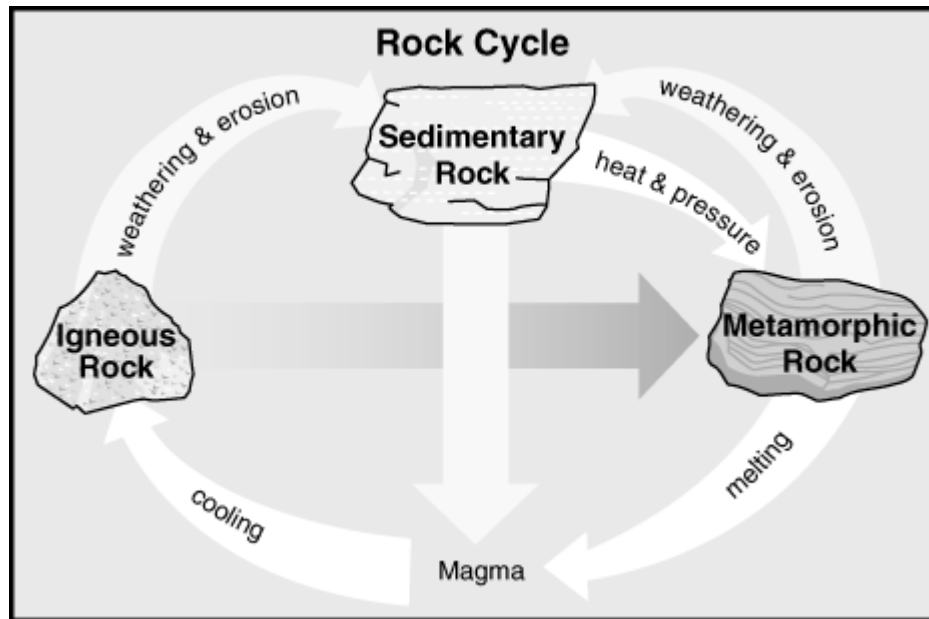
1. Use the diagram of the rock cycle shown below to answer the following question.



An igneous rock at the surface of an ancient volcano is weathered by wind, water, and ice. After millions of years, it changes into a different type of rock. Using the diagram of the rock cycle, which type of rock would it most likely become?

- A igneous
- B sedimentary
- C metamorphic
- D magma

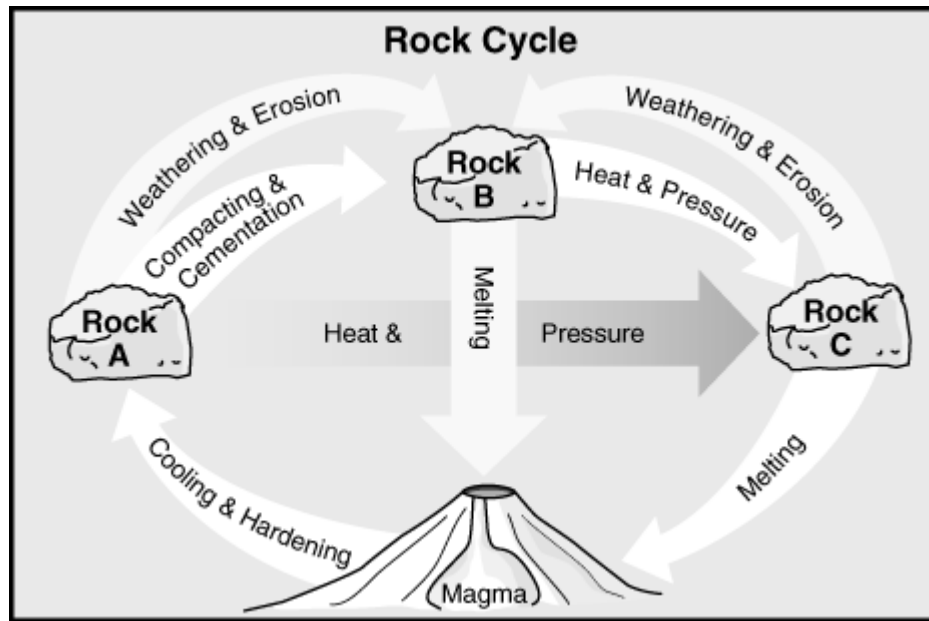
2. Use the diagram of the rock cycle shown below to answer the following question.



Over time, wind and water break down a metamorphic rock to form fine particles. Compaction and deposition compress these particles to form a new layer of rock. In time, this layer is pushed down, into the asthenosphere. Which type of rock will be formed next if the rock undergoes chemical changes but does not melt?

- A molten magma
 - B igneous rock
 - C sedimentary rock
 - D metamorphic rock
3. What type of rock is formed by broken-down rock particles and sediment from the processes of weathering and erosion?
- A obsidian
 - B metamorphic
 - C intrusive
 - D sedimentary

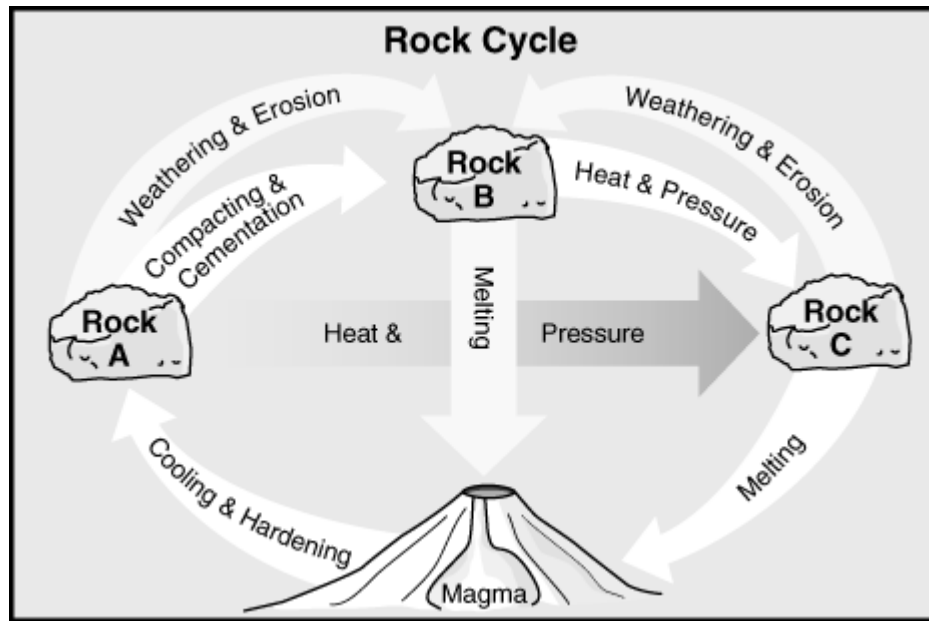
4. Look at the diagram of the rock cycle.



High temperatures deep in Earth's crust cause rocks to melt and form magma. When the magma reaches Earth's surface, it cools and hardens into rock A. This cooled and hardened rock is called

- A conglomerate rock.
- B igneous rock.
- C metamorphic rock.
- D sandstone rock.

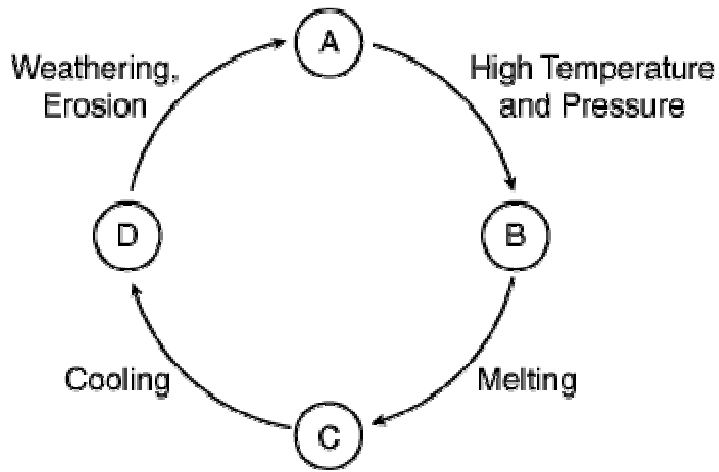
5. Look at the diagram of the rock cycle.



A rock that is formed by heat and pressure is labeled as C in the rock cycle diagram. What is this rock group called?

- A igneous rock
 - B fossil rock
 - C sedimentary rock
 - D metamorphic rock
6. Frank studies the process of metamorphosis by using clay to represent a rock. He sprinkles a piece of clay with sequins and rolls the clay into a ball. He then flattens the ball. What makes the flattening of the clay similar to the process of metamorphosis?
- A The rock is flexible and can be easily flattened
 - B The rock contains sequins that change position.
 - C The rock changes because of the pressure acting on it.
 - D The rock quickly changes size and shape.

7. The diagram below shows changes that occur during the rock cycle.



Which point in the rock cycle should be labeled “igneous rock”?

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

8. Read the following paragraph.

A volcano erupts, and hot lava spews onto the earth's surface, cooling down to form a type of rock. Over time, this rock breaks down from erosion, and the smaller particles are gradually buried and cemented together by dissolved minerals to form solid rock again. Eventually, this rock becomes so buried under other materials that it becomes reformed by pressure and heat, melting and recrystallizing into yet another kind of rock.

Which sequence in the rock cycle is described in the paragraph above?

- A** igneous to metamorphic to sedimentary
- B** igneous to sedimentary to metamorphic
- C** metamorphic to sedimentary to igneous
- D** sedimentary to igneous to metamorphic

9. The rock cycle is the sequence and processes by which one form of rock turns into another. What does the rock cycle show us?

- A** It describes a pattern of change in nature.
- B** It pinpoints where valuable mineral deposits can be found.
- C** It categorizes the different types of rocks that can be found.
- D** It predicts what will happen to the earth over time.

10. Which of the following is a possible effect of ocean temperatures rising?

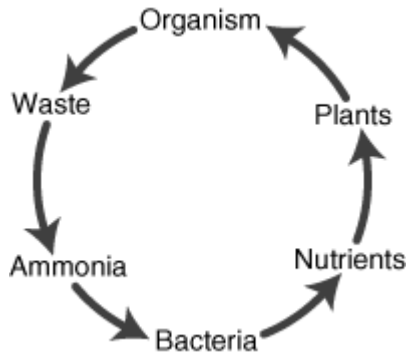
- A** a decrease in ocean levels due to greater evaporation of water into the atmosphere
- B** a decrease in the average temperature of the land masses past which the ocean currents flow
- C** an increase in clouds resulting from greater evaporation of water into the atmosphere
- D** a reversal of direction of the ocean's clockwise currents in the northern hemisphere

11. A geologist examines some rocks that were formed 350,000 years ago. From her observations, she concludes that the sea level was far lower then it is now. From this evidence, which of the following would she also expect to be true?

- A** Earth's climate was colder 350,000 years ago than it is at present.
- B** Earth's climate was warmer 350,000 years ago than it is at present.
- C** The polar ice caps were smaller 350,000 years ago than they are at present.
- D** There was less volcanic activity 350,000 years ago than there is at present.

- 12.** Some events that occur that change Earth change only a small local area. Others change Earth as a whole and impact all areas of Earth. Which event would be **most likely** to impact the whole Earth?
- A** an increase in global temperature
 - B** an earthquake occurring in the Pacific Ocean
 - C** a mountain chain forming as tectonic plates collide
 - D** lightning from a storm producing a forest fire
- 13.** A city is located near the equator, at the top of a mountain, and near the ocean. What might explain why there is snow for nearly three-quarters of the year?
- A** The high altitude makes the air colder and less dense.
 - B** The climate near the equator is typically colder than away from the equator.
 - C** The climate near the ocean is more temperate than far away from the ocean.
 - D** The high elevation prevents heat from entering the atmosphere.
- 14.** Changes in ocean currents affect the temperature of the ocean. If the water is warmer, it could cause
- A** fewer storms and less rain.
 - B** floods in nearby rivers.
 - C** more hurricanes to occur.
 - D** the beginning of an ice age.
- 15.** The carbon cycle is very important to all biotic and abiotic factors in an ecosystem. Why is this cycle so essential to all living members of an ecosystem?
- A** Plants remove carbon from the soil and keep it from polluting the natural water supplies.
 - B** Carbon provides energy to animals in the form of carbohydrates.
 - C** Plants remove carbon from the air and use it to produce food and oxygen in photosynthesis.
 - D** Carbon provides sugars to plants in order to produce oxygen.
- 16.** Heidi is developing a new area of land to grow produce. She has done soil tests that tell her that the land needs nutrients added if she wants her vegetables to grow well. Which of the materials can Heidi add to her soil to increase the nutrient value, but also enrich the soil for the future?
- A** fertilizer
 - B** organic matter
 - C** bacteria
 - D** worms

17. Bacteria play an important role in how a landscape changes. These tiny organisms introduce an important substance to the soil, which allows plants to grow. Bacteria break down decayed organic matter and the waste products of plants and animals, and return an important nutrient to the soil. What is this cycle known as?



- A water cycle
B nitrogen cycle
C phosphorous cycle
D carbon cycle
-
18. Which of the following processes would increase the carbon dioxide level in the atmosphere if removed?
- A combustion of fossil fuels
B photosynthesis
C aerobic respiration
D volcanic eruptions
19. During Earth's Ice Ages, glaciers grow to cover a portion of the land's surface. As glaciers on Earth grow larger, how does global sea level change?
- A Global sea level will increase.
B Global sea level will decrease.
C Glacier size does not have an much of an effect on global sea level.
D It is impossible to predict the effect of glacial growth on sea level.

20. M33 is a galaxy relatively near the Milky Way galaxy. What are the stars in the M33 galaxy **least likely** to have in common with stars in the Milky Way galaxy?
- A the distance they are apart
 - B the age of the stars in the galaxy
 - C the elements hydrogen and helium
 - D the number of planets each star has
21. There are three types of galaxies that exist in the universe. Each galaxy type is described by its shape and composition. There are some properties that are unique to galaxy types, and other properties that are not. What is **true** for every galaxy in the universe?
- A Every galaxy is a system of planets and moons that orbit a star.
 - B Every galaxy is a system of stars, gas, dust, and dark matter bound by gravity.
 - C Every galaxy is a system of solar systems moving outward in a spiral shape.
 - D Every galaxy is a system of stars, planets, and dark matter bound by electromagnetism.
22. There are three distinct shapes that galaxies can take. Each type is grouped by physical shape and composition. What is **true** for every irregular galaxy in the universe?
- A They are spherical with a disc.
 - B They are round or flat.
 - C They do not have a fixed shape.
 - D They do not have any dust or gas.
23. Miranda was gazing at the stars while she was on a camping trip. She noticed that many stars had a similar bluish-white color. What property was **most likely** the reason these stars looked alike?
- A size
 - B distance from Earth
 - C temperature
 - D composition
24. Which of the statements listed below is **true** of the stars in the Milky Way Galaxy?
- A Most of the stars in our galaxy are the same temperature.
 - B Most of the stars in our galaxy are made of hydrogen gas.
 - C Most of the stars in our galaxy are the same size.
 - D Most of the stars in our galaxy are the same distance from Earth.
25. The distances between objects in the universe are usually measured in light years because
- A units of length, such as kilometers, cannot be used to measure distances in space.
 - B only electromagnetic waves, such as light, can travel through a vacuum.
 - C smaller units, such as kilometers, result in values that are impractical and large.
 - D many objects in the universe radiate light that can be seen from Earth.

- 26.** What does a light-year measure?
- A** brightness
 - B** distance
 - C** speed
 - D** time
- 27.** Proxima Centauri is the next nearest star to Earth after the Sun. It is about 4.24 light-years away. How long would it take light to get from Earth to Proxima Centauri?
- A** 4.24 years
 - B** 42.4 years
 - C** 42,400 years
 - D** 424,000,000 years
- 28.** What is a light year?
- A** a device used to measure speed
 - B** a unit of time related to the speed of light
 - C** the distance light travels in one year
 - D** the distance satellites must travel
- 29.** Why are light years used to study the distances to stars?
- A** Stars are so far away that using normal units for distance would result in very large numbers.
 - B** Using light years sounds more scientific than other measurements for distance.
 - C** If we used our normal units of measure, no one would be able to write all the zeroes.
 - D** Everyone knows how long light years are.
- 30.** The Doppler effect is a change in frequency of waves for an observer moving relative to the source of the waves, such as a star. When visible light waves change frequency, they change color. Light waves from a star moving farther away from an observer decrease in frequency and shift toward the red end of the spectrum. Light waves from a star moving closer shift toward the blue end of the spectrum.
- One theory of the origin of the universe is the big bang theory. Scientists use the Doppler effect to support the idea that, since the big bang, the universe has been
- A** rotating.
 - B** getting brighter.
 - C** expanding.
 - D** contracting.

- 31.** According to the big bang theory of the origin of the universe, when were atoms created in the universe?
- A** before the actual big bang explosion
 - B** at the actual time of the big bang explosion
 - C** after the big bang explosion when matter had cooled
 - D** after gravity had pulled matter together forming stars
- 32.** What does the Big Bang theory explain about the universe?
- A** that the universe continues to contract
 - B** that the universe continues to expand
 - C** that the universe continues to cool
 - D** that the universe continues to warm
- 33.** Today's leading theory about the origin of the universe is
- A** the steady state theory.
 - B** the big bang theory.
 - C** that it has always been exactly as it is today.
 - D** Newton's theory of the universe.
- 34.** Historically, people have argued about the origin of the universe primarily, because
- A** scientific theories are based on conjecture rather than facts gathered.
 - B** scientific theories conflict with religious beliefs and are difficult to see.
 - C** scientists make everything more complicated than it needs to be.
 - D** no one really cares about how the universe started or will end.