

Today you will be taking the EIGHTH grade QUARTER FOUR assessment. This test is designed to test your skills and knowledge in science. It has questions taken from science classes, as well as about experiments. You should make sure to read each question carefully, including the information given at the beginning of each section. Examine the diagrams to help you understand the questions as well. Some questions may refer to diagrams or information from the previous page.

For the multiple choice sections, make sure to place your answers on your Scantron sheet.

Make sure the Scantron has your full name, neatly written.

For the open ended questions, make sure to read all the information, and write your answer clearly in the space provided

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- 1) Why does the moon have a greater effect on the tides than the sun?
 - A) The moon rotates more quickly than the sun.
 - B) The moon is closer than the sun to the Earth.
 - C) The moon is larger than the sun.
 - D) The moon is solid while the sun is gaseous

 - 2) What is today's best evidence that mountain chains are different ages?
 - A.) They all have different length.
 - B.) They have folded layers of rocks.
 - C.) They have different types of fossils.
 - D.) The crystals in their rocks are of different sizes.

 - 3) The continents of South America and Africa were once together. The best evidence for this is:
 - A.) both have rainforests
 - B.) both have active volcanoes
 - C.) both have descendants of extinct species.
 - D.) both have matching rock formation of similar age and type

 - 4) Why are rocks and pebbles found on riverbeds usually smooth?
 - A) The rocks and pebbles are not very old.
 - B) The rocks and pebbles rub against each other as water flows over them.
 - C) Rivers can only flow over smooth rocks and pebbles.
 - D) Organisms in the rivers break down the rocks and pebbles.

5. Which is NOT an example of erosion?

- A) An icy winter causes the pavement in a road to crack.
- B) A glacier picks up boulders as it moves.
- C) A flood washes over a riverbank, and the water carries small soil particles downstream.
- D) The wind in the desert blows sand against a rock.

6. Beryl finds a rock and wants to know what kind it is. Which piece of information about the rock will best help her to identify it?

- A) The size of the rock
- B) The minerals the rock contains
- C) The temperature where the rock was found
- D) The weight of the rock

7. Rock that is made out of material that has settled to the bottoms of lakes and oceans and been compressed and hardened is

- A) Conglomerate rock
- B) Volcanic Rock
- C) Sedimentary Rock
- D) Metamorphic Rock

8. Which statement about the formation of rocks is true?

- A. Heat and pressure can change igneous rock to sedimentary rock.
- B. Heat and pressure cause metamorphic rock to weather and erode.
- C. Weathering and erosion can change sedimentary rock into sediment.
- D. Weathering and erosion prevent magma from changing into igneous rock.

9 Students examined the ground under an oak tree and measured the intensity of the light (foot candles) in various plots. They recorded the number of dandelion and pine seedlings in each plot.

Their findings are summarized in the chart below.

Light Intensity in foot candles	Number of pine seedlings	Number of dandelion seedlings
500	0	22
800	0	17
700	3	18
1200	14	19
1500	17	23

9. Which of the following is the most valid conclusion that can be drawn from the data in the chart?

- A. Dandelion seedlings grow better in shaded areas than in sunlight.
- B. Pine seedlings grow better in sunlight than in shaded areas.
- C. The light intensity affects the germination of both dandelion and pine seedlings.
- D. The light intensity doesn't affect the germination of dandelion and pine seedlings.

10) A boy picks up a rock on the beach and puts it in his pocket to bring home. What is the best estimate of the mass of the rock?

- A) 20 pounds
- B) 230 grams
- C) 10 kilograms
- D) 1 ounce



62-64 A student wanted to examine the percolation of acid rain in soil. This student took a sample of soil from a yard and examined it. She identified two different types of soil. The student decided to examine the rate of percolation by pouring a 200 ml mixture of water and vinegar (similar to acid rain) through each soil, and measuring the amount produced each minute in ml. Her findings are summarized in the table below.

AMOUNT OF ACID RAIN PRODUCED

Minute	Soil S	Soil T
1	50 ml	20 ml
2	60 ml	20 ml
3	100 ml	50 ml
4	150 ml	60 ml
5	160 ml	70 ml
6	160 ml	70 ml
7	160 ml	80 ml

62.(3 pts) Using the axes below, construct a graph showing the amount of solution the student found each minute. Be sure to label the axes



