

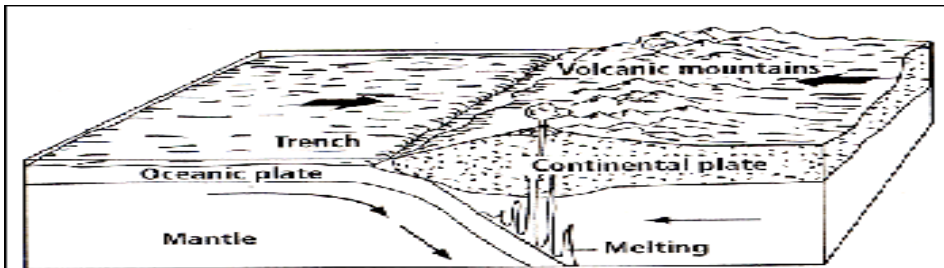
Today you will be taking the **EIGHTH** grade **QUARTER THREE** assessment. This test is designed to test your skills and knowledge in science. It has questions taken from science classes, as well as about experiments. You should make sure to read each question carefully, including the information given 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

1 (C20). The diagram below shows the convergence between an oceanic plate and a continental plate. Collisions between these two types of plates are thought to be driven by:



- A) Convection currents in the mantle.
- B) Hot liquid magma in the inner core.
- C) Volcanic eruptions along coastlines.
- D) Meteor impacts in the ocean basins.

2. (C20) Certain rock formations on the east coast of North America closely match formations on the west coast of Europe. This observation suggests that:

- A) North America and Europe are moving closer together
- B) A mountain range once extended across the Atlantic Ocean
- C) North America and Europe are on the same lithospheric plate
- D) North America and Europe were once joined



2. (C19) A glacier moving down a mountain valley is pictured below.



Glaciers are frozen, slow-moving rivers of ice that can move about three feet per day down mountain valleys. How does a glacier help create new soil?

- A) by carrying living plant material to the ocean
 - B) by scraping small particles off large rocks
 - C) by melting rocks along its path down the valley
 - D) by freezing small particles of soil to form large rocks
-

4. (C19) Pictured below are two different groups of mountains that were formed by the movement of tectonic plates. Which is probably true about these mountains?



- A) The mountains in picture A are younger than the mountains in picture B.
 - B) The mountains in picture B are younger than the mountains in picture A.
 - C) The mountains in picture A have gone through much erosion.
 - D) The mountains in picture A and B are the same age.
-



5. (C18) Different layers of rock within the Earth are shown in the picture above. Fossils were found in the layers A, B, C, and D. Which fossils are probably the oldest?

- A) Those found in layer A
- B) Those found in layer B
- C) Those found in layer C
- D) Those found in layer D



6. (CINQ2) Which is probably the most reliable and/or credible source of scientific information about a scientific issue, such as acid rain?

- A) A presentation by a politician.
- B) An article in a scientific journal with results of research.
- C) A website from a college student.
- D) A talk radio show.

A group of students decides they want to do an experiment to test the hypothesis that the mass of sticky post-it notes affects the rate at which they fall. They change the mass of the post-it notes by putting them on top of each other, and then time how long the post-it takes to hit the ground.

7. (CINQ5) To measure the mass of the sticky notes, students should use:

- A) A spring scale, measuring in ounces
- B) A balance, measuring in grams.
- C) A ruler, measuring in cubic centimeters.
- D) Their hands, by counting the notes.

8. (CINQ7) Which property should be placed on the y-axis (the side) in making a graph of their results?

- A) The number of sticky notes dropped.
- B) The mass of the sticky notes.
- C) The time it takes to reach the ground.
- D) The height the notes were dropped from.

9. (CINQ3) What is the best control group for their experiment?

- A) Measuring the rate of falling of one sticky note from one meter.
- B) Measuring the rate of falling of 1 gram of a piece of sticky note from any height.
- C) Measuring the rate of falling of ten sticky notes.
- D) Measuring the rate of falling of a sticky note from the ground.

10. (CINQ1) Which is a question they could NOT investigate through a scientific investigation?

- A) How does the color of a sticky note affect its falling time?
- B) How does the attractiveness of a sticky note affect its falling time?
- C) How does the angle a sticky note is held affect how it falls?
- D) How does the stickiness of a sticky note affect how it falls?



Use the information on the next pages to answer the four open-ended experimentation questions. Answer the questions in the space provided. Make sure to write clearly and neatly, while answering the question fully. Remember to answer the question, then WRITE a good explanation. You can always add diagrams or charts if you think it will help explain your answer.

A group of students did a science fair project to test to see if different masses fall at different rates.

They took four spheres, one of wood, one of metal, one of Styrofoam, and one of rubber, and dropped them from three different heights.

They also conducted two trials at each height.

They used stopwatches to time how long it took for them to hit the floor.

Here is their data:

Sphere & Mass	HEIGHT 1		HEIGHT 2		HEIGHT 3	
	1 m Trial 1	1 m Trial 2	2 m Trial 1	2 m Trial 2	3 m Trial 1	3 m Trial 2
wood (256 grams)	.5 sec	.45 sec	.75 sec	.77 sec	1.25 sec	1.30 sec
metal (324 grams)	.51 sec	.44 sec	.72 sec	.74 sec	1.28 sec	1.25 sec
Styrofoam (54 grams)	.87 sec	.66 sec	1.4 sec	1.1 sec	2.4 sec	2.0 sec
rubber (120 grams)	.46 sec	.52 sec	.81 sec	.78 sec	1.31 sec	1.21 sec

Use these results to answer the following questions:

