Guided Practice WK 18

power up STAAR to science

Supporting Standard 3.7.B

Name_____ Date_____

1. Rapid changes to the Earth's surface occur all over the world. All of the following are examples of events that rapidly change the Earth's surface EXCEPT--

A. volcanic eruptions
B. a mudslide
C. a tsunami
D. delta formation

2. The chart below shows cause and effect of Earth's changing land.

CAUSE	EFFECT
plate movement near a fault	earthquake
magma rises to Earth's surface	volcano
?	landslide

Which answer choice best completes the chart?

F. pressure between slabs of rock
G. underwater earthquake
H. sloped areas become saturated by rainfall
J. an area of slow moving ice

3. Volcanic eruptions occur when pressure builds up underneath the Earth's surface causing gases and rock to explode out. What is the most likely effect of this process on the nearby land?

A. Ash and lava bury nearby forests and town.
B. Large boulders develop.
C. U-shaped valleys develop.
D. Ash and lava create a sinkhole.

4. Students compare volcanic eruptions, landslides, and earthquakes in science class to find their similarities. Below are the lists of similarities some of the students wrote.

Student 1
- ground shakes
- caused by gravity
- rapid changes to Earth

Student 2
- natural forces
- can be destructive
- rapid changes to Earth

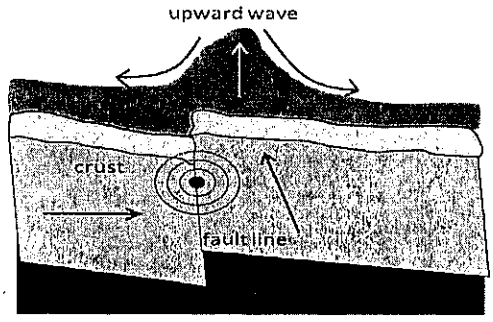
Student 3
- natural forces
- are not destructive
- rapid changes to Earth

Student 4
- large waves crash
- caused by gravity
- rapid changes to Earth

Which student correctly listed similarities between volcanic eruptions, landslides, and earthquakes?

F. Student 1 G. Student 2
H. Student 3 J. Student 4

5. The diagram below is one example of a natural event that rapidly changes the Earth.



Which natural event does the diagram represent?

A. Volcano B. Mudslide
C. Tsunami D. Mountain formation

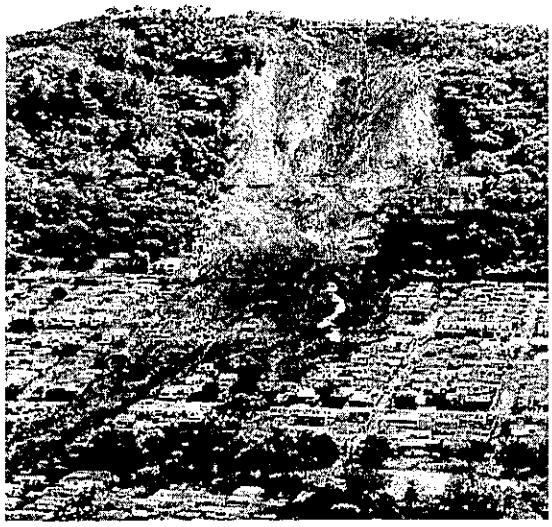
Independent Practice

power up STAAR to science

Supporting Standard 3.7.B

Name_____ Date_____

1. Some landslides occur when the soil on a slope or hill is saturated by heavy rains while other landslides can occur during an earthquake. The picture below is a landslide that occurred in El Salvador during an earthquake in 2001.



What will most likely happen to the trees and grass on the hill in the future? (5.2.D)

A. The trees and grass will slowly grow back in the damaged area.
B. The trees and grass will continue to move down the hill with the soil if it becomes too saturated from heavy rains.
C. As long as another Earthquake does not occur, the trees and grass will not change.
D. All the trees and grass on the hill will eventually die.

2. Students want to find out how volcanoes rapidly change the Earth's surface. What would be the best way for students to find out this information? (5.3.C)

F. Make a model.
G. Visit a volcano as it is erupting.
H. Interview people from the community.
J. Write a paper about volcanoes.

Use the chart below and your knowledge of science to answer questions 3 and 4.

THE RICHTER SCALE	
0-1.9	Usually only detected by a seismograph
2-2.9	Hanging objects may move; few people feel them
3-3.9	Indoor objects shake; some people feel them
4-4.9	May break windows
5-5.9	Everyone feels it; damages buildings
6-6.9	Damages and destroys buildings
7-7.9	Cracks in Earth; underground damage
8-8.9	Bridges and buildings destroyed with few left standing
9 or over	Total destruction; waves visible

3. A Richter scale records the magnitude of energy waves within the Earth's crust. Which destructive force does the Richter scale measure?

A. Sink holes
B. Volcanic eruptions
C. Tornadoes
D. Earthquakes

4. In 1964 one of the largest earthquakes was reported in Alaska. Based on the image below, where did this earthquake most likely register on the Richter scale?

F. 2.0-2.9
G. 9 or over
H. 4.0-4.9
J. 3.0-3.9