

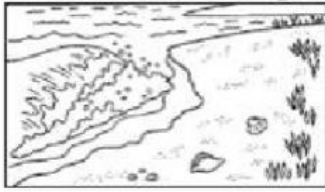
## Grade-4-Unit 3 Review

Name: \_\_\_\_\_

Grade \_\_\_\_\_

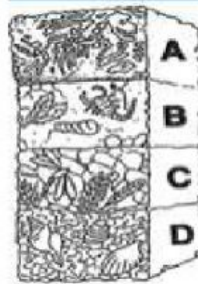
1. An example of is wind blowing sand from one place to another \_\_\_\_\_.  
a) Erosion                      b) Deposition
2. In the Mississippi River, sediment such as soil and rocks are swept downstream by the force of the river. When the river flows into the Gulf of Mexico, most of the sediment is deposited. Which activity could change the amount of sediment that is deposited from the river?  
a) An increase in rain will cause more erosion, which will cause more sediment to be deposited.  
b) A decrease in rain will cause less erosion, which will cause more sediment to be deposited.  
c) An increase in rain will cause less erosion, which will cause more sediment to be deposited.  
d) An increase in rain will cause more erosion but will not cause a change in sediment deposited.
3. Which evidence could indicate that a flood has happened in an area?  
a) A new mountain has formed.                      c) The sky is cloudy.  
b) A palm tree is charred black.                      d) Soil and rocks are on the road and sidewalks.
4. Waves can break by rushing into cracks in the rock with a lot of energy. \_\_\_\_\_.  
a) large boulders                      b) small rocks
5. Gravity pulls rainwater downhill, and the flowing water erodes the landscape by \_\_\_\_\_.  
a) forming sand dunes    b) washing away soil    c) forming a desert    d) forming moraines
6. Which happens during physical weathering? \_\_\_\_  
a) It snows.  
b) Rocks are chemically changed into limestone.  
c) The size and the shape of rocks are changed.  
d) Rust is created from the combination of water and air

7. Can Ocean waves change the rocks along a coastline?



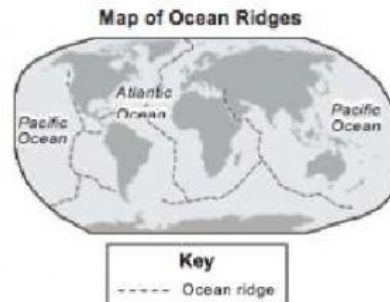
- a) Yes. Pounding waves break rocks into smaller pieces.
  - b) Yes. Pounding waves glue smaller rocks together.
  - c) No. Waves are too weak to change rocks.
  - d) Maybe. Scientists are not sure.
8. Scientists are able to tell which fossils are the oldest by looking at the bedrock. Which layer contains the youngest fossils?

- ☐ Layer A
- ☐ Layer B
- ☐ Layer C
- ☐ Layer D



9. What two possible techniques could scientists have used to create this map of the ocean ridges?

- a) detecting new landforms
- b) observing from underwater vehicles
- c) monitoring sound waves
- d) comparing mountain ranges
- e) surveying land level



10. Complete each sentence by matching the parts of each true statement.

Volcanoes can form on \_\_\_\_\_

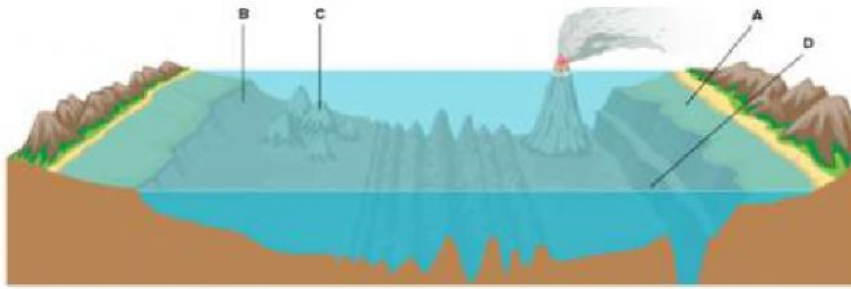
Volcanoes are caused by \_\_\_\_\_

- a) the ocean floor or land.
- b) glaciers and icebergs
- c) plate movement
- d) state boundaries.

11. Plateaus, valleys, canyons, and mountains are all examples of \_\_\_\_\_.

- a) highlands
- b) mantle areas
- c) landforms
- d) hydrosphere

12. Which feature of the ocean floor is the continental shelf?



- a) A      b) B      c) C      d) D

13. For which landform would contour lines be closest together on a topographical map?

- a) a sand dune      b) a plateau      c) a hill      d) plains

14. \_\_\_\_\_ are breaks or cracks in the rocks that make up Earth's crust.

- a) Landforms      b) Earthquakes      c) Boundaries      d) Faults

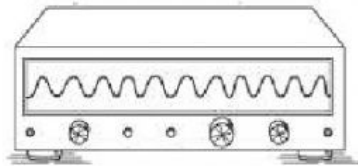
15. If you use walking as a model for wavelength and amplitude, what would a long and high step represent?

- a) short wavelength, low amplitude      c) short wavelength, high amplitude  
b) long wavelength, low amplitude      d) long wavelength, high amplitude

16. The distance between wave crests is called \_\_\_\_\_.

- a) Amplitude      b) wavelength

17. How can you determine the amplitude of the wave pattern shown below?



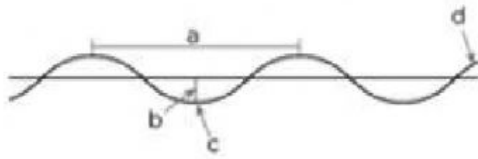
- a) Measure the length of each peak.      c) Count the number of peaks.  
b) Measure the length of the entire wave.      d) Measure the height of the waves

18. \_\_\_\_\_ is the height of a wave from its trough to its midpoint.      a) Frequency      b) Amplitude

19. The distance between one peak and the next in a wave is called the wave's \_\_\_\_\_.

- a) Frequency      b) wavelength      c) amplitude

20. Which part of the diagram below shows the wavelength?



- a) A                      b) B                      c) C                      d) D
21. Waves that move material up and down as they travel are called \_\_\_\_\_.
- a) transverse waves                      b) seismic waves                      c) longitudinal wave
22. A seismograph detects earthquakes and records their seismic waves as curvy lines. The steeper the lines of a seismic wave, the \_\_\_\_\_ the earthquake.
- a) stronger                      b) weaker
23. What kinds of waves do earthquakes produce? **Select all that apply.**
- a) seismic waves    b) longitudinal waves    c) transverse waves                      d) heat wave
24. The amount of energy released by an earthquake is its \_\_\_\_\_.
- a) magnitude                      b) power
25. What steps should a student take to design a solution to a problem?
- a) improve, communicate, plan, investigate, ask
- b) test, plan, investigate, improve, ask
- c) ask, investigate, plan, tests, improve ask,
- d) investigate, communicate, improve, plan
26. A group of students is trying to build an earthquake-resistant tower on a table using pipe cleaners, paper clips, toothpicks, clay, and tape. When the table is shaken, the tower stays standing but slides around the table. Which of the following suggestions would improve the tower? **Select all that apply.**
- a) Add more toothpicks to the sides for greater support.
- b) Tape the bottom of the tower to the table.
- c) Fold pipe cleaners to widen the base of the tower.
- d) Use the pointy ends of the paper clips on the tower to grip the table.
- e) Use clay on the bottom of the tower to increase friction between the tower and the table.
- f) Use additional toothpicks to add height to the tower.
- g) Wrap the tower in pipe cleaners to cushion the movement

27. Scientists are using new technology to try to \_\_\_\_\_ when an earthquake is coming.  
a) Predict                      b) confirm
28. An emergency management specialist is someone who helps \_\_\_\_\_ in an emergency situation.  
a) People                      b) animals
29. Earthquakes are \_\_\_\_\_ to occur where faults are located.  
a) less likely                      b) more likely
30. Which best describes how people can prepare for earthquakes?  
a) People can use seismographs to predict earthquakes.  
b) There is no way to prepare for earthquakes  
c) People can build earthquake-safe buildings in earthquake zones.  
d) People can use technology to stop earthquakes
31. If you are indoors during an earthquake, you can seek safety \_\_\_\_\_  
a) under a table                      b) near a window