

Natural Disasters: A High School Curriculum Review

Earth Science · Practice Test · 20 Questions

1. Which geological process is the primary cause of most earthquakes?

- A) Volcanic eruptions
- B) Landslides
- C) Tectonic plate movement
- D) Tidal surges

2. The Richter scale, often associated with earthquakes, primarily measures which aspect of seismic activity?

- A) The duration of shaking
- B) The depth of the earthquake's focus
- C) The energy released by the earthquake
- D) The number of aftershocks

3. What is the main characteristic of a stratovolcano (or composite volcano)?

- A) Broad, gently sloping sides formed by fluid lava flows
- B) Steep, conical shape with alternating layers of lava and ash
- C) Caldera formation due to explosive eruptions
- D) Formation of lava domes

4. A hurricane is a tropical cyclone that forms over warm ocean waters. What is the minimum sustained wind speed required for a tropical storm to be classified as a hurricane?

- A) 119 km/h (74 mph)
- B) 90 km/h (56 mph)
- C) 150 km/h (93 mph)
- D) 63 km/h (39 mph)

5. The 'Ring of Fire' is a horseshoe-shaped zone known for its high frequency of volcanic eruptions and earthquakes. Which of the following oceans is it primarily located around?

- A) Atlantic Ocean
- B) Indian Ocean
- C) Arctic Ocean
- D) Pacific Ocean

6. What is the primary driver of tsunamis, often mistakenly called 'tidal waves'?

- A) Strong winds over the ocean surface
- B) Underwater volcanic eruptions
- C) Meteorite impacts in the ocean
- D) Large earthquakes on the ocean floor

7. Which of the following is a characteristic feature of a tornado's formation?

- A) Formation within large, stable air masses
- B) Association with warm fronts and humid air
- C) Occurs primarily over large bodies of water
- D) Requires descending air currents

8. What is the main danger associated with a drought?

- A) Sudden widespread flooding
- B) Destruction of infrastructure by high winds
- C) Severe shortages of water and food
- D) Rapid spread of volcanic ash

9. Mass wasting, such as landslides, is often triggered by which factor?

- A) Consistent dry weather
- B) Sustained periods of heavy rainfall or snowmelt
- C) Low atmospheric pressure
- D) Strong prevailing winds

10. A 'supercell' thunderstorm is known for its potential to produce severe weather, including tornadoes. What is a defining characteristic of a supercell?

- A) It is a short-lived thunderstorm
- B) It contains a persistent rotating updraft called a mesocyclone
- C) It forms in clear, dry air
- D) It is typically small in diameter

11. Which type of natural disaster is characterized by the sudden release of energy in the Earth's crust, creating seismic waves?

- A) Volcanic eruption
- B) Landslide
- C) Earthquake
- D) Flood

12. When a cold air mass displaces a warm air mass, it can lead to the formation of cumulonimbus clouds and severe thunderstorms. This is associated with which type of front?

- A) Warm front
- B) Stationary front
- C) Occluded front
- D) Cold front

13. What is the primary cause of a mudflow (or lahar) that can occur on the slopes of a volcano?

- A) Erosion from wind
- B) Accumulation of dry volcanic ash
- C) Melting snow and ice mixed with volcanic debris
- D) Subterranean gas release

14. The 'Eye' of a hurricane is characterized by:

- A) The strongest winds and heaviest rainfall
- B) Calm conditions and clear skies
- C) Rapidly rotating thunderstorms
- D) The most intense storm surge

15. Which of the following is NOT a primary factor contributing to the intensity of a wildfire?

- A) Fuel type (e.g., dry vegetation)
- B) Wind speed and direction
- C) Topography (slope)
- D) Low humidity

16. A 'mega-tsunami' is an exceptionally large tsunami. What is a known cause of some mega-tsunamis?

- A) Small, localized earthquakes
- B) Volcanic flank collapse into the sea
- C) Passing ships
- D) High tides during a full moon

17. What is the term for a period of unusually low temperatures that can significantly impact agriculture and ecosystems?

- A) Heatwave
- B) Blizzard
- C) Cold snap
- D) Hailstorm

18. The formation of sinkholes is most commonly associated with which geological phenomenon?

- A) Volcanic activity
- B) Karst topography (dissolution of soluble rocks like limestone)
- C) Glacial erosion
- D) Subterranean nuclear testing

19. What is the main scientific concern regarding the increasing frequency and intensity of extreme weather events?

- A) A decrease in global sea levels
- B) A reduction in atmospheric carbon dioxide
- C) Anthropogenic climate change
- D) Increased ozone layer thickness

20. Which of the following is a characteristic of a blizzard?

- A) High temperatures and heavy rain
- B) Strong winds, blowing snow, and low visibility
- C) Ground tremors and ash fall
- D) Torrential rainfall and flash floods