



Montgomery Academy Geography Dept.



Name: _____

Previous Score: _____/100 **New Score:** _____/100

Tectonics

Multiple choice knowledge checker

1.	What is a natural hazard?	
<input type="radio"/>	A.	An extreme hazard caused by human activity.
<input type="radio"/>	B.	An extreme natural event that threatens people or has the potential to cause damage, destruction and death.
<input type="radio"/>	C.	A hazard caused by climate change.
<input type="radio"/>	D.	A hazard resulting from the movement of tectonic plates.

2.	Natural events, such as volcanic eruptions or earthquakes that occur away from humans and properties are not considered natural hazards.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

3.	Which of the following factors affect the risk from natural events such as volcanic eruptions, earthquakes and floods?	
<input type="radio"/>	A.	Population Density
<input type="radio"/>	B.	Level of economic development
<input type="radio"/>	C.	Geographical location
<input type="radio"/>	D.	All of the above

4.	What is a geological hazard?	
<input type="radio"/>	A.	A hazard that occurs as the result of extreme weather conditions.
<input type="radio"/>	B.	A hazard that occurs when the climate becomes too hot and causes drought.
<input type="radio"/>	C.	A hazard that occurs because of a movement of the Earth's crust.
<input type="radio"/>	D.	A hazard that occurs as the result of human actions.

5.	Which of the following is an example of a geological hazard?	
<input type="radio"/>	A.	Volcanic eruption
<input type="radio"/>	B.	Flooding
<input type="radio"/>	C.	Mudslide
<input type="radio"/>	D.	Drought

6.	What is an atmospheric hazard?	
<input type="radio"/>	A.	A hazard caused by the movement of the Earth's crust.
<input type="radio"/>	B.	A hazard caused by human activity.
<input type="radio"/>	C.	A hazard that occurs when it becomes too hot.
<input type="radio"/>	D.	A hazard that occurs as the result of certain weather conditions.

7.	Which hazard is caused by rising temperature?	
<input type="radio"/>	A.	Volcanoes
<input type="radio"/>	B.	Earthquakes
<input type="radio"/>	C.	Tsunamis
<input type="radio"/>	D.	Droughts

8.	What type of hazard is a tsunami?	
<input type="radio"/>	A.	Geological
<input type="radio"/>	B.	Atmospheric
<input type="radio"/>	C.	Both atmospheric and geological
<input type="radio"/>	D.	Neither atmospheric nor geological

9.	True or false? Volcanoes only happen in places where the climate is warm.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

10.	Countries around the Pacific Ring of Fire are more at risk of what types of natural hazard?	
<input type="radio"/>	A.	Earthquakes and volcanic eruptions.
<input type="radio"/>	B.	Earthquakes and flooding.
<input type="radio"/>	C.	Volcanic eruptions and drought.
<input type="radio"/>	D.	Volcanoes and forest fires.

11.	What would the likely short-term impacts of a climatic hazard be on a developed country?	
<input type="radio"/>	A.	High death toll and high economic cost
<input type="radio"/>	B.	Low death toll and low economic cost
<input type="radio"/>	C.	High death toll and low economic cost
<input type="radio"/>	D.	Low death toll and high economic cost

12.	Which type of event is likely to occur more often due to climate change?	
<input type="radio"/>	A.	Volcanic eruptions
<input type="radio"/>	B.	Earthquakes
<input type="radio"/>	C.	Tropical Storms
<input type="radio"/>	D.	Landslides

13.	Which of the following is not an example of a classification of natural hazards?	
<input type="radio"/>	A.	Tectonic hazards
<input type="radio"/>	B.	Atmospheric hazards
<input type="radio"/>	C.	Geomorphological Hazards
<input type="radio"/>	D.	Human hazards

14.	Why do people live in areas vulnerable to natural hazards?	
<input type="radio"/>	A.	Can't move
<input type="radio"/>	B.	Don't want to move
<input type="radio"/>	C.	Can't predict when a hazard will occur
<input type="radio"/>	D.	All of the above

15.	What layer of the earth is found beneath the crust?	
<input type="radio"/>	A.	Inner core
<input type="radio"/>	B.	Outer core
<input type="radio"/>	C.	Mantle
<input type="radio"/>	D.	Plate

16.	True or false? The inner core is solid, whereas the outer core is liquid.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

17.	What is the upper section of the mantle called?	
<input type="radio"/>	A.	Crust
<input type="radio"/>	B.	Asthenosphere
<input type="radio"/>	C.	Inner Core
<input type="radio"/>	D.	Convection current

18.	Identify the two types of tectonic crust.	
<input type="radio"/>	A.	Continental and tectonic
<input type="radio"/>	B.	Continental and oceanic
<input type="radio"/>	C.	Continental and asthenosphere
<input type="radio"/>	D.	Oceanic and tectonic

19.	Which type of crust is heaviest?	
<input type="radio"/>	A.	Oceanic
<input type="radio"/>	B.	Continental

20.	Which type of crust is the thickest?	
<input type="radio"/>	A.	Oceanic
<input type="radio"/>	B.	Continental

21.	What is the top layer of the mantle and the Earth's crusts known as?	
<input type="radio"/>	A.	Continental drift
<input type="radio"/>	B.	Plate tectonics
<input type="radio"/>	C.	Asthenosphere
<input type="radio"/>	D.	Lithosphere

22.	The lithosphere (crust) is broken into several large fragments. What are these known as?	
<input type="radio"/>	A.	Continental drift
<input type="radio"/>	B.	Dinner plates
<input type="radio"/>	C.	Tectonic plates
<input type="radio"/>	D.	Asthenosphere

23.	How is movement of the Earth's crust currently tracked?	
<input type="radio"/>	A.	GPS
<input type="radio"/>	B.	ABS
<input type="radio"/>	C.	BBC
<input type="radio"/>	D.	RPG

24.	What is molten liquid rock above the Earth's surface known as?	
<input type="radio"/>	A.	Asthenosphere
<input type="radio"/>	B.	Hot spot
<input type="radio"/>	C.	Magma
<input type="radio"/>	D.	Lava

25.	If lava is thick and sticky it is said to be...	
<input type="radio"/>	A.	Viscous
<input type="radio"/>	B.	Non-viscous

26.	What is a plate margin?	
<input type="radio"/>	A.	The point where all volcanoes occur.
<input type="radio"/>	B.	Where two tectonic plates meet each other.
<input type="radio"/>	C.	A convection current in the Earth's mantle.
<input type="radio"/>	D.	The point where the crust and the mantle meet.

27.	Which of the following are examples of plate margins	
<input type="radio"/>	A.	Conductive, destructive and conservative.
<input type="radio"/>	B.	Constructive, destructive and democratic.
<input type="radio"/>	C.	Constructive, destructive and conservative.
<input type="radio"/>	D.	Conductive, destructive and democratic.

28.	Identify the two reasons why plates are thought to move.	
<input type="radio"/>	A.	Convection currents and ridge push & slab pull.
<input type="radio"/>	B.	Convection currents and ridge pull & slab push.
<input type="radio"/>	C.	Conservative currents and ridge push & slab pull.
<input type="radio"/>	D.	Convection currents and convection push & slab pull.

29.	How does the theory of convection suggest plates move?	
<input type="radio"/>	A.	Hot currents in the mantle flow beneath the lithosphere, building up lateral pressure and carry the plates with them.
<input type="radio"/>	B.	Hot currents in the outer core flow beneath the lithosphere, building up lateral pressure and carry the plates with them.
<input type="radio"/>	C.	The weight of a subducting plate causes it to move.
<input type="radio"/>	D.	Fossils found on opposite continents.

30.	What is ridge push?	
<input type="radio"/>	A.	When gravity causes the ridge to push on the lithosphere and move tectonic plates.

<input type="radio"/>	B.	When the weight of a dense tectonic plate is subducted into the mantle.
<input type="radio"/>	C.	When convectional currents cause plates to move due to friction.
<input type="radio"/>	D.	A feature formed due to fold mountains.

31.	What is slab pull?	
<input type="radio"/>	A.	When gravity causes the ridge to push on the lithosphere and move tectonic plates.
<input type="radio"/>	B.	When the weight of a dense tectonic plate is subducted into the mantle.
<input type="radio"/>	C.	When convectional currents cause plates to move due to friction.
<input type="radio"/>	D.	A feature formed due to fold mountains.

32.	Where are ocean ridges often found?	
<input type="radio"/>	A.	Destructive plate margin
<input type="radio"/>	B.	Conservative plate margin
<input type="radio"/>	C.	Passive plate margin
<input type="radio"/>	D.	Constructive plate margin

33.	Where do volcanoes and earthquakes occur? (You can select more than one answer).	
<input type="radio"/>	A.	They are randomly distributed.
<input type="radio"/>	B.	There is a chain of volcanoes and earthquakes that occur around the edge of the Pacific Ocean.
<input type="radio"/>	C.	They are found at volcanic hot spots such as Hawaii.
<input type="radio"/>	D.	They occur along destructive and constructive plate margins.

34.	How far do most tectonic plates move each year?	
<input type="radio"/>	A.	A few millimetres
<input type="radio"/>	B.	A few centimetres
<input type="radio"/>	C.	A few metres
<input type="radio"/>	D.	A few kilometres

35.	What type of margin do the North American and Eurasian plate form?	
<input type="radio"/>	A.	Constructive
<input type="radio"/>	B.	Destructive
<input type="radio"/>	C.	Passive
<input type="radio"/>	D.	Conservative

36.	What happens at a conservative plate margin?	
<input type="radio"/>	A.	An oceanic plate subducts a continental plate.
<input type="radio"/>	B.	Two plates slide past each other.
<input type="radio"/>	C.	Two plates move away from each other.
<input type="radio"/>	D.	Two continental plates move towards each other.

37.	What happens at a destructive plate margin?	
<input type="radio"/>	A.	An oceanic plate subducts a continental plate.
<input type="radio"/>	B.	Two plates slide past each other.
<input type="radio"/>	C.	Two plates move away from each other.
<input type="radio"/>	D.	Two continental plates move towards each other.

38.	What happens at a constructive plate margin?	
<input type="radio"/>	A.	An oceanic plate subducts a continental plate.
<input type="radio"/>	B.	Two plates slide past each other.
<input type="radio"/>	C.	Two plates move away from each other.
<input type="radio"/>	D.	Two continental plates move towards each other.

39.	Rift valleys are associated with which type of plate margin?	
<input type="radio"/>	A.	Destructive
<input type="radio"/>	B.	Constructive
<input type="radio"/>	C.	Conservative

40.	Identify two examples of rift valleys.	
<input type="radio"/>	A.	The Great Rift Valley in south-eastern Africa
<input type="radio"/>	B.	Thingvellir, south-western Iceland
<input type="radio"/>	C.	Lightwater Valley, England
<input type="radio"/>	D.	The Valley of the Kings, Egypt

41.	A subduction zone is associated with which type of plate margin?	
<input type="radio"/>	A.	Destructive
<input type="radio"/>	B.	Constructive
<input type="radio"/>	C.	Conservative

42.	Shield volcanoes are associated with which type of plate margin?	
<input type="radio"/>	A.	Destructive
<input type="radio"/>	B.	Constructive
<input type="radio"/>	C.	Conservative



Figure 1 – Plate Margins

43.	Identify the destructive margin in figure 1.	
<input type="radio"/>	A.	
<input type="radio"/>	B.	
<input type="radio"/>	C.	

	Identify the constructive margin above	
<input type="radio"/>	A.	
<input type="radio"/>	B.	
<input type="radio"/>	C.	

45.	Identify the conservative margin in the figure 1.	
<input type="radio"/>	A.	
<input type="radio"/>	B.	
<input type="radio"/>	C.	

46.	Identify the type of margin where mid-ocean ridges occur.	
<input type="radio"/>	A.	Destructive
<input type="radio"/>	B.	Constructive
<input type="radio"/>	C.	Conservative

47.	What is a subduction zone?	
<input type="radio"/>	A.	The area where an oceanic plate is pushed under a continental plate.
<input type="radio"/>	B.	The area where two plates are passing each other and get stuck due to friction.
<input type="radio"/>	C.	The area where two plates separate creating new land.
<input type="radio"/>	D.	Another name for a volcanic hot spot.

48.	True or false? Fold mountains occur at both conservative and destructive plate margins.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

49.	True or false? Volcanoes and earthquakes occur at destructive plate margins.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

50.	What type of volcano is typically found along destructive plate margins?	
<input type="radio"/>	A.	Shield
<input type="radio"/>	B.	Composite
<input type="radio"/>	C.	Extinct
<input type="radio"/>	D.	Dormant

51.	True or false? Volcanoes occur along conservative plate margins.	
<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

	What is used to measure the Mercalli Scale?	
<input type="radio"/>	A.	Seismograph
<input type="radio"/>	B.	Seismometer
<input type="radio"/>	C.	Pendulums
<input type="radio"/>	D.	Observations

53.	Why do earthquakes occur at conservative plate margins?	
<input type="radio"/>	A.	As the plates move past each other, friction causes them to become stuck. Pressure builds up until eventually the rock fractures causing an earthquake.
<input type="radio"/>	B.	As the oceanic plate subducts the continental plate, friction causes them to become stuck. Pressure builds up until eventually the rock fractures causing an earthquake.
<input type="radio"/>	C.	As two continental plates collide earthquakes occur as the land folds.
<input type="radio"/>	D.	As two plates move apart magma rises causing earthquakes.

54.	True or false? The San Andreas fault has formed along a conservative plate margin.	
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<input type="radio"/>	A.	True
<input type="radio"/>	B.	False

Earthquake Case Study in an HIC – Kobe, Japan (1995)

55.	What magnitude was the Japan earthquake?	
<input type="radio"/>	A.	5.3
<input type="radio"/>	B.	6.3
<input type="radio"/>	C.	7.0
<input type="radio"/>	D.	9.1

56.	Which type of margin did the Japan earthquake occur on?	
<input type="radio"/>	A.	Constructive
<input type="radio"/>	B.	Destructive
<input type="radio"/>	C.	Conservative
<input type="radio"/>	D.	Collision

57.	How many buildings were damaged?	
<input type="radio"/>	A.	10 000
<input type="radio"/>	B.	100 000
<input type="radio"/>	C.	200 000
<input type="radio"/>	D.	300 000

	How many people died in the Japan earthquake?	
<input type="radio"/>	A.	95
<input type="radio"/>	B.	1,700
<input type="radio"/>	C.	17,000
<input type="radio"/>	D.	316,000

59.	How many people were injured?	
<input type="radio"/>	A.	6000
<input type="radio"/>	B.	10 000
<input type="radio"/>	C.	13 000
<input type="radio"/>	D.	25 000

	Which of the following are primary effects of the Japan earthquake?	
<input type="radio"/>	A.	Water, electricity and sewage supplies were disrupted
<input type="radio"/>	B.	>30m high tsunami waves
<input type="radio"/>	C.	The focus was 30km deep
<input type="radio"/>	D.	>300,000 people were displaced

	What was the estimated cost of the Japan earthquake?	
<input type="radio"/>	A.	\$2.5 billion
<input type="radio"/>	B.	\$30 billion
<input type="radio"/>	C.	\$100 billion
<input type="radio"/>	D.	\$300 billion

	Identify one secondary impact of the earthquake.	
<input type="radio"/>	A.	Water, electricity and sewage supplies were disrupted
<input type="radio"/>	B.	Search & Rescue was quick
<input type="radio"/>	C.	The focus was 30km deep
<input type="radio"/>	D.	>300,000 people were displaced

	Identify one way the Japanese government immediately responded to the earthquake.	
<input type="radio"/>	A.	An emergency committee was set up and Japanese troops sent to help
<input type="radio"/>	B.	134 000 new homes were built.
<input type="radio"/>	C.	Fires ripped through the city
<input type="radio"/>	D.	New laws were passed to make buildings and transport more earthquake proof

64.	Identify one long-term response to the earthquake.	
<input type="radio"/>	A.	Major retailers gave supplies to people affected
<input type="radio"/>	B.	300 French police were sworn in to provide support.
<input type="radio"/>	C.	New laws were passed to make buildings and transport more earthquake proof
<input type="radio"/>	D.	The Red Cross provided \$4 billion in donations.

Earthquake Case Study in an LIC – Haiti (2010)

	What magnitude was the Haiti earthquake?	
<input type="radio"/>	A.	6.0
<input type="radio"/>	B.	7.0
<input type="radio"/>	C.	8.0
<input type="radio"/>	D.	9.0

	Which type of margin did the Haiti earthquake occur on?	
<input type="radio"/>	A.	Constructive
<input type="radio"/>	B.	Destructive
<input type="radio"/>	C.	Conservative
<input type="radio"/>	D.	Collision

67.	How many buildings were destroyed?	
<input type="radio"/>	A.	50 000
<input type="radio"/>	B.	100 000
<input type="radio"/>	C.	150 000
<input type="radio"/>	D.	300 000

	How many people died in the Haiti earthquake?	
<input type="radio"/>	A.	316
<input type="radio"/>	B.	3,160
<input type="radio"/>	C.	31,600
<input type="radio"/>	D.	316,000

69.	How many people were injured?	
<input type="radio"/>	A.	300+
<input type="radio"/>	B.	3 000+
<input type="radio"/>	C.	30 000+
<input type="radio"/>	D.	300 000+

70.	Identify the primary effects of the earthquake?	
<input type="radio"/>	A.	Airport runway and ports in Port au Prince seriously damaged and roads blocked by rubble
<input type="radio"/>	B.	The EU provided \$330m in aid.
<input type="radio"/>	C.	1 000 000 homeless
<input type="radio"/>	D.	4 years after the earthquake 230 000 people were living in tents.

	What was the estimated cost of the earthquake?	
<input type="radio"/>	A.	\$3 billion
<input type="radio"/>	B.	\$13 billion
<input type="radio"/>	C.	\$30 billion
<input type="radio"/>	D.	\$300 billion

	Identify the secondary impact of the Haiti earthquake	
<input type="radio"/>	A.	Diseases such as Cholera spread through the camps as there was no sanitation
<input type="radio"/>	B.	Charitable donations of \$1.1 billion were made.
<input type="radio"/>	C.	Many countries sent search and rescue teams.
<input type="radio"/>	D.	Airport runway and ports in Port au Prince seriously damaged and roads blocked by rubble

	Identify one way the government responded to the Haiti earthquake.	
<input type="radio"/>	A.	Each family in the affected area were given food vouchers.
<input type="radio"/>	B.	10 000 affordable homes were built.
<input type="radio"/>	C.	Families affected were given \$15000 to help rebuild their lives.
<input type="radio"/>	D.	The response was limited due to the country being an LIC.

74.	Identify one international response to the earthquake.	
<input type="radio"/>	A.	300 Australian police were sworn in to provide support.
<input type="radio"/>	B.	300 French police were sworn in to provide support.
<input type="radio"/>	C.	\$100m in aid given by USA and \$330m from the EU
<input type="radio"/>	D.	Looting took place

75.	Which of the following statements affect the impact and responses to an earthquake (you can select more than one)?	
<input type="radio"/>	A.	Building density – the more buildings, the greater the likelihood some will collapse.
<input type="radio"/>	B.	The higher the population density, the greater the risk of injuries and fatalities.
<input type="radio"/>	C.	The closer to the epicentre the greater the magnitude will be.
<input type="radio"/>	D.	The more resources and money available the quicker it is to rebuild homes and businesses.

76.	Why do people live in hazardous areas (you can select more than one)	
<input type="radio"/>	A.	Geothermal energy
<input type="radio"/>	B.	Mining
<input type="radio"/>	C.	Farming
<input type="radio"/>	D.	Warm temperatures

77.	Which of the following are ways risks of earthquakes can be reduced?	
<input type="radio"/>	A.	Prediction, protection, percolation and monitoring
<input type="radio"/>	B.	Production, protection, planning and monitoring
<input type="radio"/>	C.	Monitoring, prediction, protection and planning
<input type="radio"/>	D.	Preparation, protection, planning and monitoring

78.	Which type of earthquake risk management involves using historical data to see where they may occur?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

79.	Which type of earthquake risk management involves designing buildings to withstand earthquakes?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

80.	Which type of earthquake risk management involves residents learning how to turn off the main gas, electricity and water supplies to their property?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

81.	Which type of earthquake risk management involves using seismometers to measure tremors or foreshocks before major earthquake events?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

82.	Which type of earthquake risk management involves using GPS to detect movements in the ground?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

83.	Which type of earthquake risk management involves practising an annual earthquake drill?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

84.	Which type of volcanic eruption risk management involves using GPS and tiltmeters to investigate ground deformation (changes to the volcano's surface)?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

85.	Which type of volcanic eruption risk management involves authorities evacuating people from their homes to a location that is a safe distance from the volcano?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

86.	Which type of volcanic eruption risk management involves using seismometers to measure earth tremors and small earthquakes?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

87.	Which type of volcanic eruption risk management involves authorities developing evacuation plans?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

88.	Which type of volcanic eruption risk management involves thermal heat	
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	sensors to identify temperature changes on the surface of volcanoes?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

89.	Which type of volcanic eruption risk management involves the preparation of emergency shelters and food supplies by authorities and emergency services?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

90.	Which type of volcanic eruption risk management involves designating potential exclusion zones in advance of eruptions?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

91.	Which type of volcanic eruption risk management involves educating people about avoiding injury and loss of life?	
<input type="radio"/>	A.	Prediction and monitoring
<input type="radio"/>	B.	Protection
<input type="radio"/>	C.	Planning

