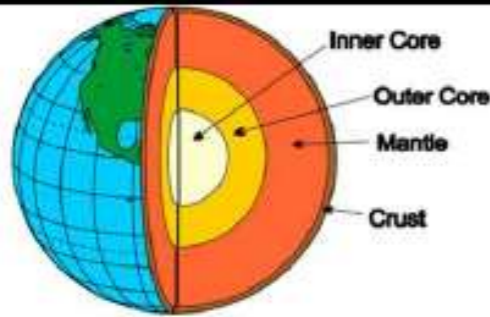
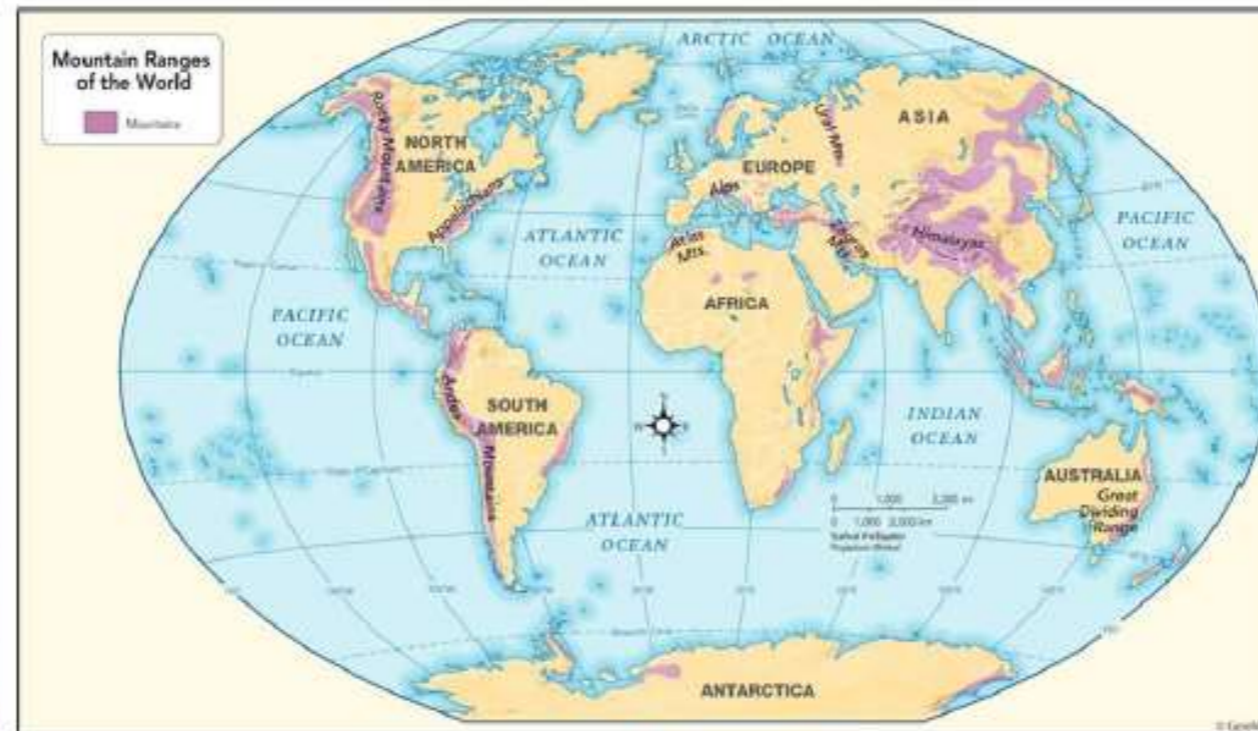


St John's Mountains, Volcanoes & Earthquakes Knowledge Organiser

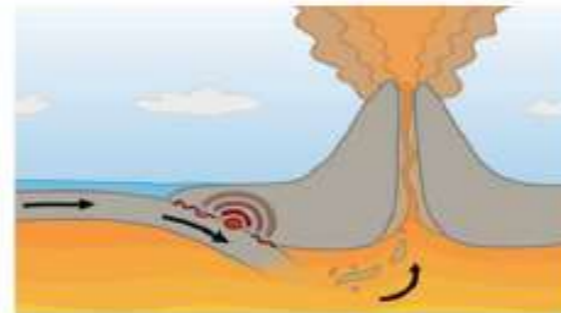


Structure of the Earth	
Crust:	solid rock; 0-60 km thick; continental (granite) and oceanic (basalt); broken into tectonic plates
Mantle:	liquid/molten rock; ~2,900 km thick
Outer core:	liquid metal; iron and nickel; ~4400°C
Inner core:	solid metal; iron and nickel; ~6100°C

Keywords	
Magma	Molten rock in the mantle
Lava	Magma that has reached the surface
Pressure	Physical force (pressure builds up when tectonic plates lock together and can't move)
Friction	Resistance or difficulty in moving. Tectonic plates are rough and so there is friction when they move.
Basalt	Dark-coloured volcanic rock.
Granite	Hard rock
Fold mountain	Mountains formed when tectonic plates collide and cause the plates to wrinkle
Ocean trench	A deep valley formed on the ocean floor where one tectonic plate subducts under another.
Tsunami	Large ocean wave caused by underwater earthquake.



Earthquakes occur when plates jolt forward after getting stuck.



Volcanoes erupt when magma rises to the surface.



Volcanoes	
Shield volcano:	Largest volcanoes on earth; wide base; low height; not steep. Example: Kilauea (Hawaii) and Erta Ale (Ethiopia)
Stratovolcano (composite):	Most of the world's volcanoes are composite volcanoes: made of layers of lava and ash; steep sides; tall.

	Tohoku 11/03/2011 9.0 Richter Scale	Fuego Volcano 03/06/2018 Explosivity Index 3
Location	Japan	Guatemala
Primary Effects	16,000 people died 4000 people missing 6000 people injured	110 deaths 200 people missing 300 injured
Secondary Effects	Tsunami wave and flooding (reached 39 m high, travelled 10 km inland on eastern side of Japan) Disruption to: travel and farming	Heavy rain caused landslides Hunger due to crops being destroyed Disruption to travel and farming
Immediate Responses	Military aircraft identified areas needed most urgent help Roads cleared to bring water/food/ medical care / tents	Search & Rescue teams clear roads to reach people Water / food / medical care / tents Evacuation
Long-term Responses	Continued training, education and earthquake drills Rebuild infrastructure (roads, electricity, buildings)	Education and evacuation drills New and improved emergency response systems Rebuilding infrastructure

