Richmond Hill Primary School – Geography

Topic: Extreme Earth	Year: 5	Strand: Human and Physical Geography

What should I already know?

- **Volcanoes** are caused by movement of the Earth's **tectonic plates**.
- When a **volcano** happens, **magma** rises through the main vent and out the crater in the form of **lava**.
- Tropical rainforests are found near the **equator**. The climate of a rainforest is very hot and **humid**.

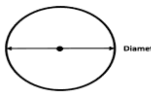
What will I know by the end of the unit?

How does geographical location influence climate?	• Areas around the **equator** are closest to the sun. These areas are the hottest in the world. • The North and South Poles are the furthest from the sun, making the Arctic and Antarctic the coldest regions of the world.
What are some of the world's most extreme types of weather?	• Tropical storms (hurricanes, typhoons and **cyclones**) develop when warm air mixes with ocean currents and high sea temperatures. • Flooding is the biggest natural weather disaster on Earth, carrying the biggest death toll. • **Tornados** are spiralling funnels of air which can reach speeds of 300mph and can be up to a kilometre wide!
How do earthquakes happen?	• When the Earth's **tectonic plates** meet, they sometimes jam together causing earthquakes. • They mostly happen on faults. • Earthquakes under the sea can cause **tsunamis**.
What causes a volcano to erupt?	• Volcanos happen when **magma** escapes through vents in the Earth's **crust**. Ash, poisonous gas and **lava** are released.

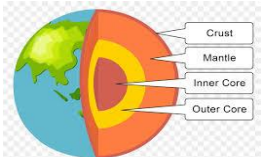
Geographical skills and fieldwork

- Where are the most extreme climates in the world found? Can you identify these places on a world map?
- Can you explain why some types of extreme weather occur?
- What are the differences between **active**, **dormant** and **extinct** volcanos?
- Can you identify areas at high risk of a **tsunami** on a world map? Can you describe the impact of a **tsunami** on a costal region and its population?

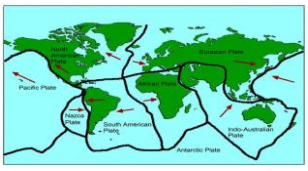
Vocabulary

active volcano	a volcano that has erupted at least once during the past 10,000 years
atmosphere	the layer of gas that surrounds the Earth
crust	the thin shell on the outside of the Earth
cyclone	a rapidly rotating storm
diameter	 a straight line that passes through the centre of a circle
dormant volcano	a volcano that has not erupted in 10,000 years but may erupt in the future.
drought	prolonged shortages in water supply
equator	an imaginary line around the middle of the planet
extinct volcano	a volcano which is unlikely to erupt again because it no longer has a magma supply
humid	a high level of water vapour in the atmosphere
lava	hot molten rock expelled from a volcano
magma	melted rock beneath the Earth's surface
mantle	the part of the Earth between the core and the crust
tectonic plates	giant slabs of land which float over the Earth's mantle
tornado	a rapidly rotating column of air
troposphere	lowest layer of the Earth's atmosphere
tsunami	a series of waves caused by a volcanic eruption or earthquake
volcano	a very deep hole in the Earth's top layer that can let out hot gasses, ash and lava

Diagrams



Layers of the Earth


Tectonic plates