Yr.8: NATURAL HAZARDS

Key Words

Natural Hazard	Extreme natural events that can cause loss of life, extreme damage to property and disrupt human activities.
Tectonic	Relating to the structure of earth's crust and the large-scale processes which take place within it.
Primary Impact	The direct impacts of the natural hazard.
Secondary Impact	The indirect effects caused by the primary impacts, after the hazard has occurred.
Immediate Response	The aid and assistance that are given within the first few hours or days following a disaster.
Long term responses	Responses that go on for months and years after a disaster.

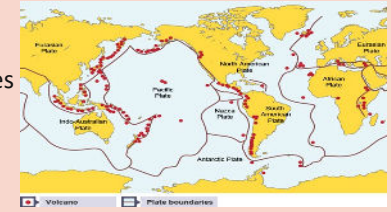
HAZARD IMPACTS

Primary - Earthquakes	Secondary - Earthquakes
• Buildings destroyed as ground shakes. • Ports, roads, railways damaged (infrastructure).	• Death and injury caused by building collapse. • Homelessness and debt as building will need repair.
Primary - Volcanoes	**Secondary - Volcanoes**
• Property and farm land destroyed by lava flows. • Air travel halted due to volcanic ash.	• Roads blocked by lava flow (damage to infrastructure). • Loss of income from tourism as visitors stop coming to area.
Primary – Tropical Storms	**Secondary – Tropical Storms**
• High winds destroy buildings and power lines. • Storm surge damages boats and port areas.	• Flooding increases disease spread and blocks transport routes. • Crops lost as drowned in flood waters.

HAZARD LOCATIONS

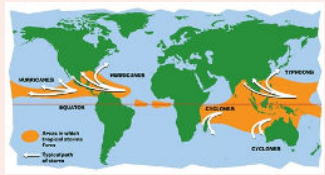
Volcano and earthquake activity often occur in similar places in **narrow zones of activity**, as shown on map.

These are located where tectonic plates meet.



Tropical Storms occur in low latitudes between 5° and 30° north and south of the equator (in the tropics). Ocean temperature needs to be above 27° C.

Mostly occurring between summer and autumn.



MPPP Responses to Hazards

Response can be **immediate** (rescue teams/evacuations) or **long term** (repairing/rebuilding). They are often characterised using MPPP.

Monitoring:
- Seismometers measure earth movement
- Gas samples around volcanoes
- Weather satellites tracking storms

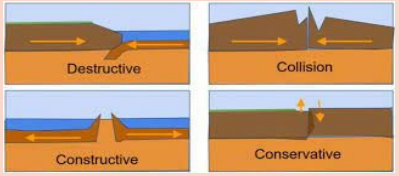
Prediction:
- By observing monitoring data, this can allow evacuation before event.This will look different depending on the hazard

Protection:
- Reinforced buildings and foundations that absorb movement
- Automatic shut offs for gas & electricity
- Storm shutters or reinforced windows

Planning:
- Avoid building in at risk areas
- Training for emergency services
- Planned evacuation routes and drills

HAZARD FORMATION

BOHUNT FARNBOROUGH



Earthquakes:

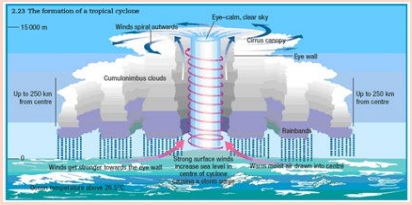
Constructive margins – usually small earthquakes as plates pull apart. **Destructive** margins – violent earthquakes as pressure builds and is then released.

Conservative margins – plates slide past each other. They catch and then as pressure builds it is released e.g. San Andreas fault.

Volcanoes:

Constructive margins – Hot magma rises between the plates.

Destructive margins – an oceanic plate subducts under a continental plate. Friction causes oceanic plate to melt and pressure forces magma up.



Formation tropical storm (Hurricane/Typhoon)

1. Air is heated above warm tropical oceans (27°C+).
2. Air rises under low pressure conditions.
3. Strong winds form as rising air draws in more air and moisture causing torrential rain.
4. Air spins due to Coriolis Effect around a calm eye of the storm.(74mph)
5. On meeting land, it loses source of heat and moisture so loses power.