



HUMAN and NATURAL DISASTERS KNOWLEDGE ORGANISER



Overview

-A disaster is a 'sudden accident or a natural catastrophe that causes great damage or loss of life.'

-Disasters on Earth may be as a result of human or natural causes, although some may be caused by both.

Human-Caused Disasters

-Examples include pollution, deforestation and use of the Earth's resources.

Natural Disasters

-Examples include volcanoes, earthquakes and extreme weather.



Human-Caused Disasters

-Human caused disasters are the consequence of human or technological hazards.
-Some are more immediate, whereas others occur over as a result of human activity over time.
- Human activity is likely to be at least partially responsible for some 'natural' disasters.

Pollution		-Pollution occurs when something is added to the environment that is harmful to living things. -Air pollution can be caused by burning fossil fuels, whereas water pollution may come from sewage/ waste. -Pollution causes diseases, global warming & acid rain.
Deforestation		-Deforestation is the permanent removal of trees to make way for something besides forest e.g. housing, agriculture. -Trees absorb carbon dioxide and provide homes for millions of animals – as forests are lost, biodiversity is harmed and carbon dioxide levels rise.
Industrial Accidents		-Industrial accidents are caused by industrial companies, as a result of negligence or incompetence. They may include oil spills, fires, or nuclear explosions. These can have a wide range of catastrophic effects on the environment.
Nuclear Radiation		-Humans have the technology to trigger nuclear reactions, which can be useful, but also extremely harmful. -Radiation can be deliberate (e.g. bombs) or accidental and can cause instant death, acute and long term illnesses.

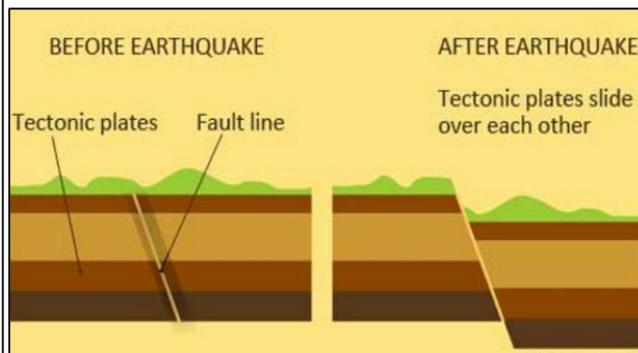
Key Vocabulary

- Disaster
- Human
- Natural
- Physical
- Epicentre
- Ring of Fire
- Erupt
- Shock Waves
- Richter Scale
- Earthquake
- Tsunami
- Magma
- Tectonic Plates
- Volcanoes
- Lava
- Hurricane
- Tornado
- Drought
- Mercalli Scale

How Earthquakes and Volcanoes Happen

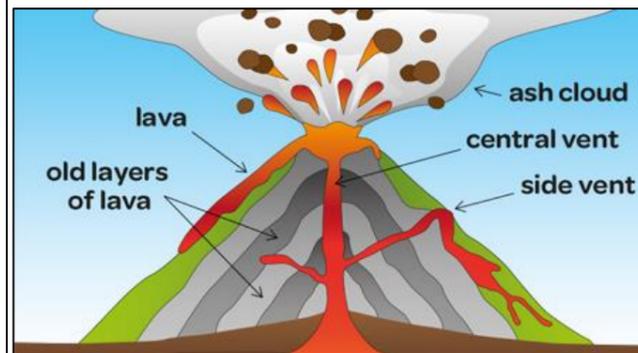
Earthquakes

-The Earth's crust is made up of many moving sheets of rocks, called tectonic plates.
-The places where these plates meet are called fault lines. As they rub past each other, pressure can cause the plates to suddenly slip.
-This releases a large amount of energy, and creates seismic waves that travel through the Earth. The waves are felt most strongly in close proximity to where the event takes place – an earthquake.



Volcanoes

-As tectonic plates pull apart or are pushed underneath one another, magma is melted.
-Melted magma rises to the surface because it is lighter than rock.
-If the magma rises quickly or is too thick, gas cannot easily escape. This builds pressure.
-Magma can therefore erupt as lava through openings in the Earth's crust (volcanoes).



Natural Disasters

-Natural disasters are the consequence of the natural processes of Earth.
-Natural disasters may cause loss of life, property damage, and economical/social problems.
- Human activity is likely to be at least partially responsible for some 'natural' disasters.

Earthquakes		-Earthquakes happen when two large pieces of the Earth's crust (tectonic plates) slip suddenly. -This causes shock waves to the surface of the Earth. -When earthquakes take place underneath or near water, they may trigger tsunamis – (huge waves) Both can cause huge human & environmental damage.
Volcanic Eruptions		-Volcanic eruptions occur when lava, rock fragments, hot vapour and gas are released through a volcano from beneath the Earth's surface. -During eruptions, damage and death is caused by lava flows, mudslides and avalanches.
Hurricanes/ Tornadoes		-Hurricanes and tornadoes are both examples of adverse weather that involve extremely strong winds. -Large hurricanes and tornadoes have the power to uproot trees, throw cars, and even dismantle buildings. -They also cause huge storms which can cause flooding.
Drought/ Flooding		-Droughts occur when places do not receive an adequate water supply, often as a result of decreased rainfall. -Flooding is an overflow of water that submerges land that is usually dry. In addition to destroying environments, flooding can also cause contamination and spread disease.

Disasters Timeline

66 million BCE Dinosaur extinction event – probable asteroid.	1650 BCE Minoan eruption of Thera.	226 BCE Rhodes Earthquake.	79 CE Eruption of Mount Vesuvius.	526 CE Antioch Earthquake.	856 CE Damghan Earthquake.	1138 CE Aleppo Earthquake.	1780 CE Great Atlantic Hurricane.	1839 CE Indian Hurricane/ Cyclone	1928-30 CE Chinese drought.	1931 CE Yellow River Flood.	1945 CE Hiroshima Atomic Bomb.	1986 CE Chernobyl Nuclear Disaster.	1991 CE Gulf War Oil Spill	2004 CE Indian Ocean Earthquake/ Tsunami
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