

Year 3-6 Unit Title: The Natural World – Why do we have Extreme Weather and Natural Disasters? (Geography/History)		Driver Subject/s: Geography and Science
Sound (Science) Duration: 6 weeks		
Coherence – What previous learning will this unit connect to and build upon? <u>Geography:</u> <ul style="list-style-type: none"> • Understanding of islands, continents and oceans • Animals, including humans, survival and offspring • Weather and Seasons • Fossils • Local community <u>History:</u> <ul style="list-style-type: none"> • Chronology (time line) • Events beyond living memory that are significant to our world: Great Fire of London, Florence Nightingale, Neil Armstrong • Fossils <u>Science:</u> <ul style="list-style-type: none"> • Senses 	Extreme Weather and Natural Disasters <u>Geography</u> <ul style="list-style-type: none"> • describe and understand key aspects of physical geography in the context of what is under the Earth's surface. • describe the properties of the Earth's layers • describe and understand key aspects of physical geography in the context of volcanoes. • Explain how volcanoes are formed. • describe what happens when a volcano erupts • Explain how volcanoes affect people's lives • describe some risks and benefits of living near a volcano • describe and understand key aspects of physical geography in the context of earthquakes. • Explain what causes earthquakes and how they are measured • explain how to keep safe in an earthquake • To describe and understand key aspects of physical geography in the context of tsunamis. • Explain what causes tsunamis and how they affect people • Describe and understand key aspects of physical geography in the context of tornadoes. • Explain what causes tornadoes and the effects they have. <u>(History)</u> <ul style="list-style-type: none"> • The eruption of Mount Vesuvius, the impact on the people, and what we can learn from history • Other historical natural disasters e.g. Boxing Day tsunami Thailand, 2004, etc 	Future learning – what 'light touches' for future learning will occur? <u>History</u> <ul style="list-style-type: none"> • Roman Empire <u>Geography</u> <ul style="list-style-type: none"> • Water cycle <u>Science</u> <ul style="list-style-type: none"> • Properties of different materials/ state of matter • Forces
Knowledge – What will the children know by the end of the unit? Sound <u>Science</u> <ul style="list-style-type: none"> • Describe and explain sound sources • identify how sounds are made, associating some of them with something vibrating, • find patterns between the volume of a sound and the strength of the vibrations that produced • recognise that vibrations from sounds travel through a medium to the ear • find patterns between the pitch of a sound and features of the object that produced it, • recognise that sounds get fainter as the distance from the sound source increases • investigate ways to absorb sound. 		Outcomes - What written, creative and technological outcomes will be expected by the end of the unit? <ul style="list-style-type: none"> • A model of the layers of the earth • Ask questions and find out answers about the Extreme weather and natural disasters on our planet • Demonstration of how tectonic plates move • Creation of a paper mache volcano and use of reactive ingredients to create an eruption • Act out what to do in event of an earthquake • Identify key pieces of equipment used for tracking extreme weather and natural events • Create an animation using scratch of an extreme weather event • A diary entry of the survivor of the Mount Vesuvius eruption • Create a dramatisation of how sounds travel • create musical instruments, and explain how they change pitch • conduct an investigation to find the best way of absorbing sound

Key Vocabulary: Science

- **absorption** – when sound energy hits an object and is converted into another form of energy; the opposite of reflection
- **acoustics** – the characteristics of a space that control how sound waves move
- **amplitude** – the measure that a sound wave travels from its resting place
- **ear** – an organ used for hearing
- **eardrum** - A part of the ear which is a thin, tough layer of tissue that is stretched out like a drum skin. It separates the outer ear from the middle and inner ear. Sound waves make the eardrum vibrate.
- **loudness** – magnitude of sound
- **medium** – substance (gas, liquid or solid) through which sound waves travel
- **particles** - solids, liquids and gases are made of particles. They are so small we are unable to see them.
- **pitch** – how high or low a sound is; determined by the frequency of the vibration
- **sound energy** – energy produced by the vibration of sound waves
- **soundproof** – to prevent sound from passing.
- **sound wave** – sound travels in a wave, which is a moving pattern of high and low pressure or vibrations
- **speed of sound** – how fast sound moves through an object
- **vacuum** – a space where there is nothing. There is no sound in a vacuum.
- **vibrate** – to move back and forth
- **volume** – how much sound energy reaches the ear
- **wavelength** – the length between the compressions in a sound wave

Key Vocabulary: Geography

- **Active volcanoes** - erupted in the last 10 000 years.
- **bedrock** - A mass of rocks. Fossils can be found.
- **cumulonimbus cloud** - Large thunderstorm clouds
- **crust** - Thin outer layer. Hard rock. 10km–90km thick.
- **Dormant volcanoes** - haven't erupted in the last 10 000 years but may erupt again.
- **Earthquakes** - caused when the earth's tectonic plates suddenly move.
- **erupt** - To suddenly burst out causing lava to explode out of the earth's surface.
- **Extinct volcanoes** - aren't expected to erupt again.
- **fossils** - The remains of plants or animals that lived a long time ago which can be found deep in the earth.
- **humus** - Rotting dead leaves and animals.
- **Inner core** - Iron and nickel. Hottest layer at over 5000°C.
- **magma** - Extremely hot, liquid rock.
- **Mantle** - Extremely hot rock that flows. 3000km thick.
- **Outer core** - Iron and nickel. Mostly liquid with some rocky parts. 4000°C.
- **subsoil** - Rocks and stones. Full of nutrients. Tree roots may reach. Fossils can be found.
- **Topsoil** - Plant's roots grow here. Very few rocks.
- **tornado** - a swirling funnel of air that forms when warm air rises from near the ground into big cumulonimbus clouds.
- **tectonic plates** - The earth's crust is made up of large areas called tectonic plates that join together.
- **tsunami** - a giant wave caused by a huge earthquake under the ocean.
- **Volcanoes** - made when pressure builds up inside the earth. This affects the earth's crust causing magma to sometimes erupt through it

Global Learning and Citizenship – including significant people and places.

Global approach covering the ring of fire, Iceland, Italy, Thailand, USA

Ancient Civilisations in Europe (Mount Vesuvius)

Link to school values and curriculum intent –

Extreme Weather and Natural Disasters

- awareness of flooding of the River Severn and aid and support given to those affected.
- International perspective exploring natural disasters across the globe, connecting to local experiences.
- Caring for others and helping those in need

Opportunities for visitors, trips or outdoor learning

- Connect with weather expert to give an online presentation about extreme weather and natural disasters
- Visit flood affected communities nearby.

Supporting texts –

Snowglobe by Amy Wilson

Chronicles of Narnia by C.S. Lewis

The Firework maker's Daughter by Philip Pullman

Mathematical Development –

Time lines – number lines/negative numbers
Measurement
Graphs