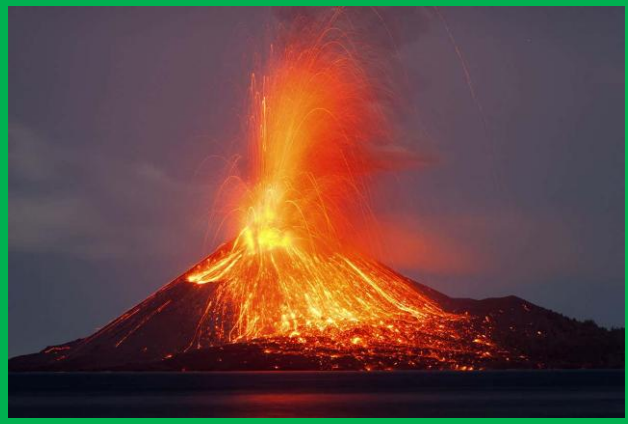
TEAM Multi Academy Trust Geography: Earth Shakers



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Geography

Vision

- Geography plays a crucial role in helping students understand their own identity and sense of place in the world.
- The school Geography Curriculum seeks to develop key skills; uncover important geographical (substantive) knowledge and introduce children to disciplinary knowledge (how and why geography has been interpreted by geographers).
- Students will learn how their locality, Britain, the wider world have been shaped by physical and human processes.

Intent
Children will:

Develop knowledge of globally significant places → Understand physical & human feature of the world and processes giving rise to them → Become competent in analysing, interpreting & communicating geographical information → Develop an understanding of different versions of geogrphy → Learn to evaluate different versions of geography

Implementation

Based on high quality teaching and learning experiences → Cover the National Curriculum → Include rigorous monitoring and evaluation → Develop and utilise resources → Use experts & primary evidence including maps & fieldwork → Ensure engagement and enjoyment

Impact
Children will:

Develop clear understanding of identity and place in the world → Understand how communities are influenced by physical geography → Understand how communities are interconnected → Develop critical thinking and analytical skills → Apply beyond the classroom → Become informed and engaged citizens

Substantive Knowledge and Disciplinary Rigour
From the Early Years Foundation Stage up to the end of Key Stage 2, the substantive knowledge progresses through conceptual development. Meanwhile, disciplinary rigour is developed through geographic enquiry and interpretation – developing students' ability to think geographically. To ensure pupils can learn more and know more over time, we believe it is crucial that our geography curriculum develops both categories of knowledge as well as geographic skill.

Reviewing Prior Learning: Speak Like an Expert
Purpose: Sessions that ensure effective retention & recall of information.

Regular sessions at the start of every lesson to review prior learning.

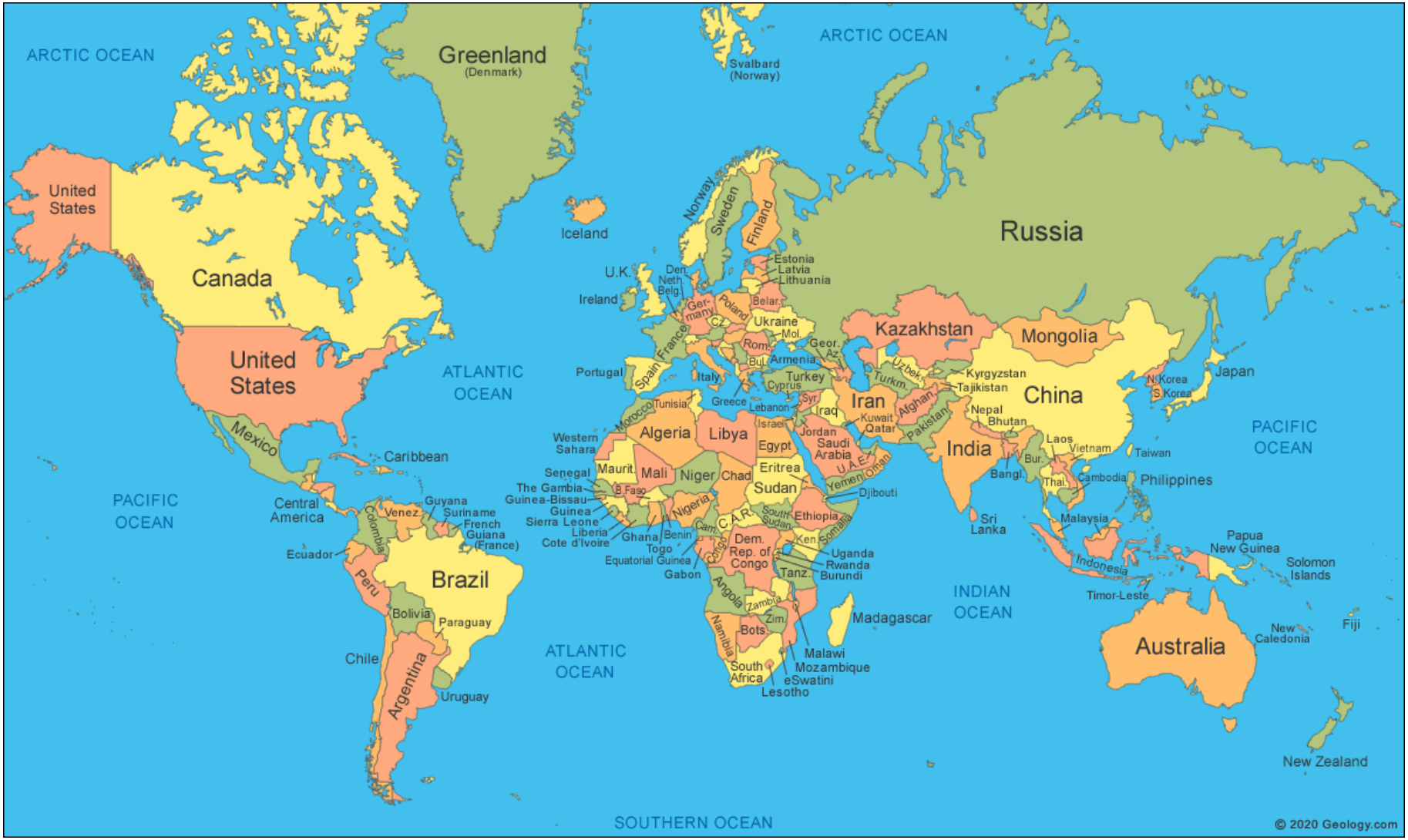
Friday sessions
Dedicated sessions reviewing the week's learning helping to make connections.

Format
Activities include recap quizzes, group discussions, visual aids, role playing, teacher feedback.

Benefits
Students develop strong retention skills, articulate historical knowledge & concepts.

Location

Locational Knowledge
Where in the world is ..?



Earth Shakers

Subject: History	Year: 3 and 4	Term: Spring 1

National Curriculum Aims

Key Objectives:

- Locate the world's countries
- Name and locate counties and cities of the UK; geographical regions (human and physical characteristics) and land-use patterns
- Identify latitude, longitude, hemispheres, tropics, equator, arctic & Antarctic circles, prime meridian and climate zones, biomes, vegetation belts
- Understand geographical similarities and differences of a region of UK and a region in India
- Use maps, atlases and digital mapping

Key Elements

Key Elements:

- Human – settlement and land use
- Physical – Mountains and Volcanoes
- Mapping – Atlases and maps

Key Questions

Five Key questions:

What makes up the Earth? How do tectonic plates move and effect the Earth's surface? What are volcanoes/features/ring of fire? What could be the effect of an earthquake and tsunami to a human? What are the cardinal compass points? How are maps use to plot earthquake zones and tectonic activity?

Curriculum coherence

Building Learning Power - Prior Learning:

As students progress through the rolling programme, their geographic knowledge is built, connecting past lessons to new ones. In 'Earth Shakers', students build on learning from Y1/2, where they learnt about Whitby on the coast of the UK and the Antarctic as a different Earth environment. It leads into a project about mountains ("Summit Seekers").
Development of locational understanding will be built on as will students' ability to make sense of different places from primary sources of evidence including aerial photographs, maps and first-hand information. Understanding of how geographers explain the earth's features using maps and compass points will also be developed.

Building Futures - Future Learning through the project:

- **Foundational Understanding:** Students establish locational knowledge and place knowledge in the UK and north-west India and beyond.
- **Conceptual Development:** Students delve into the broader geographical context of the Earth's physical features, laying the groundwork for more complex geographical concepts in KS3.
- **Critical Analysis:** By continuing to evaluate geographical understanding related to the *Key Elements*, students develop critical thinking skills (begun in KS1) that will be essential for analysing geographical concepts in KS3.
- **Local Context:** Exploring how the *location* of Britain impacts its relatively stable physical geography and comparing this with the west coast of USA will serve to contrast the two locations and identify how being in an active tectonic region impacts human geography.
- **Broader Connections:** Students place *UK, USA and India in* broader geographical narratives, enabling understanding of connections between different geographical locations.

Vocabulary:

See the glossary below

Development of Knowledge

Lesson	Content	Substantive knowledge	Disciplinary knowledge
Lesson 1	**What do you already know about volcanoes and earth quakes?** Write down what you think you may know. **Retrieval Grid** Look at the retrieval grid – does this make you think of anything else? **What makes up the Earth … What are some of the geological and physical features of the Earth?**	**Students should understand:** • The Earth is made of **four main layers**: the crust, mantle, outer core, and inner core. • The **crust** is the thin, rocky outer layer where we live; it includes continents and ocean floors. • Under the crust is the **mantle**, a thick layer of hot, slow-flowing rock that moves very slowly. • Beneath the mantle is the **outer core**, made of **liquid iron and nickel**, which creates Earth's magnetic field. • At the very centre is the **inner core**, a solid sphere made mostly of **iron**, squeezed tight by immense pressure.	**What do Geographers do?**

			• These layers help explain **earthquakes, volcanoes, mountains**, and how the Earth has changed over millions of years.	
	Lesson 2	Review lesson one. **How do tectonic plates move and effect the Earth's surface?**	• The Earth's crust is broken into **large pieces called tectonic plates**, like a giant jigsaw puzzle. • These plates **float on the semi-molten mantle** beneath them and are always slowly moving. • There are **continental plates** (carrying land) and **oceanic plates** (carrying ocean floors). • When plates **push together**, they can form **mountains** or cause **volcanoes and earthquakes**. • When plates **pull apart**, new crust forms as **magma rises**, often creating **mid-ocean ridges**. • When plates **slide past each other**, they can create powerful **earthquakes**, like along the San Andreas Fault.	**Why is the study of the Earth's crust so important? How do Geographers do this?**
	Lesson 3	Review lesson two. **What are volcanoes; volcanic features; the ring of fire?**	• A **volcano** is an opening in the Earth's crust where **magma**, gas, and ash escape from below the surface. • When magma reaches the surface, it's called **lava**, which cools and hardens to form new rock. • Volcanoes are usually found near **tectonic plate boundaries**, where plates meet or move. • A **crater** is the bowl-shaped hole at the top of a volcano where eruptions can happen. • A **magma chamber** is a large pocket of melted rock deep underground that feeds a volcano. • **Lava flows**, **ash clouds**, and **pyroclastic flows** (fast-moving hot gas and rock) are common volcanic features. • Some volcanoes are **shield volcanoes** with gentle slopes, while others are **stratovolcanoes** with steep sides. • The **Ring of Fire** is a huge area around the edge of the Pacific Ocean where most of the world's volcanoes are found. • This area has lots of volcanoes and earthquakes because many **tectonic plates meet** there. • Many famous volcanoes—like Mount St. Helens, Mount Fuji, and Krakatoa—are part of the **Ring of Fire**.	
	Lesson 4	Review lesson three. **What could be the effect of an earthquake and tsunami to a human?** What happens in an earth quake?	• People can get hurt or lose their lives because buildings or roads collapse. **What happens in an earthquake is …**	

		What is a tsunami and how do they happen?	• The ground shakes because tectonic plates under Earth's surface suddenly move. • Buildings, roads, and bridges can crack, wobble, or break. • Objects inside homes can fall over, and people may feel the ground rumble or sway. **What happens in a tsunami is …** • A huge amount of water is pushed up, usually by an underwater earthquake. • Massive waves form and travel across the ocean at high speeds. • When the waves reach land, they can flood coastal areas and sweep things away. • Homes and schools might be destroyed, leaving families without a safe place to stay. • Clean water, electricity, and communication systems can break down, making daily life difficult. • Tsunamis can flood large areas, washing away houses, cars, and anything in their path. • Communities may need a long time to rebuild, and people might have to live in shelters for weeks or months.	
	Lesson 5	Review lesson four. **What are the cardinal compass points? How are maps use to plot earthquake zones and tectonic activity?**	• Maps come in different forms and help geographers understand where places, mountains, rivers, countries and other specific features and zones are located. • Compass points help show direction on a map. • The cardinal compass points are: N.E.S.W • Using maps and compass points makes it easier to describe where something is in the world. • They help geographers plan routes and figure out how to get from one place to another. • Maps can show different information, like weather, population, or land height. • Compass points help geographers compare locations and understand how places are connected.	**How do geographers use maps and compass points as part of their work?**
Assess & Review	**Lesson 6**	**Retrieval Grids** Complete a world map of significant volcanic / earthquake activity. Complete retrieval lesson to illustrate what you know about the substantive knowledge from the Retrieval Grid now.	• Complete SLaE pages recapping what has been learnt in the project.	

Disciplinary rigour

How does the curriculum develop pupils' capacity to think geographically, i.e. questioning the nature of people, places and the environment?

Do plans show how pupils will be taught to use geographical approaches?

Glossary	
volcano	A mountain on land or in the ocean that can erupt with lava, ash and gases
tsunami	A series of very large ocean waves caused by underwater earthquakes or eruptions.
Ring of Fire	The area around the Pacific Ocean containing between 750 and 915 active or dormant volcanoes - around two-thirds of the world total.
Mount Etna	Active volcano in Sicily, Italy. One of the most active volcanoes on Earth.
Mount St Helens	Active volcano in NW USA.
Barren Island	Active volcano off the coast of India.
Mount Vesuvius	Active volcano in SW Italy **[Link to Romans Project]**
Tectonic plates	Large pieces of Earth's crust that move slowly over time.
Crust	The solid, rocky outer layer of the Earth.
Mantle	The thick layer of molten rock below the crust.
Outer core	A liquid layer of molten iron and nickel around the inner core.
Inner core	A solid ball of iron and nickel at the centre of the Earth.
Fault lines	A crack in Earth's crust where rocks can move and cause earthquakes.
Epicentre	The point on Earth's surface directly above where an earthquake starts.
Seismic waves	Vibrations that travel through the ground during an earthquake.
earthquake	A violent shaking of the Earth's crust caused by plate tectonics
aftershock	A smaller earthquake that happens after the main one.
magma	Melted rock found beneath Earth's surface.
lava	Melted rock that flows out of a volcano during an eruption.
ash cloud	A big cloud of tiny rock and ash pieces released during a volcanic eruption.
Pyroclastic Flow	Fast-moving current of hot gas, ash, and rock that flows down the side of a volcano during an explosive eruption. Extremely destructive, traveling at speeds in the hundreds of miles per hour and reaching temperatures of 1,000 degrees Celsius