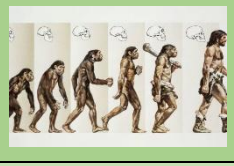
How has the Earth evolved?

Evolution (T3)– Volcanoes and Earthquakes – Natural disasters (T4)



L earning Journey

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N ova Curriculum

Year 6	Terms 3 & 4	Big concept: change and diversity Investigating and making a difference.

Overview:

Predominant subjects: Science (T3) and Geography (T4)

This enquiry enables learners to learn about the evolution of humans and how they and animals adapt to their environment whilst learning about inherited characteristics (Science focus). As Geographers, in Term 4, we will be look at natural disasters with a focus on earthquakes and volcanoes and the effect that they have on communities.

Class texts have been chosen to enrich children's learning, encouraging them to make links with their reading and wider curriculum learning. For example, Floodlands and survivors offers opportunities for children to learn about natural disasters and the effects that these can have. What Mr Darwin Saw allows children to develop their understanding of how humans have evolved and how animals adapt to their environment.

Learning links (previous learning):	**Celebrating diversity and inspirational People:**
History: Fossils would have been taught in Y3 however, spend a lesson recapping this. In Year 5, some children might have done a little bit of home learning regarding natural disasters. Geography: Children will recap and build upon their locational and place knowledge, the water cycle and rivers. Art: Children will develop their sketching skills to create perspective drawings. Children will build on weaving skills to create textiles.	Charles Darwin Mary Anning Velda Newman (Batiq artist) Healy and Burke
Launch and Landings	**Experiential learning opportunities:**
Term 3 Launch: Sketching fossils and exploring the different types of fossils. Mini- Landing: applying knowledge through Bird Beak Experiment Landing: A non-fiction recount on how Darwin's discoveries on the Galapagos islands informed his theories on natural selection.	***Experience day/ science experiment*** Science – Adaptation Bird Beak Experiment and maths work/ graphs UWE Visitors– Inheritance and genetics workshop 28th January 2025 Humanist Visitor 7th February

UWE researchers – inheritance and genetics. **Term 4 Launch:** Natural disasters experiments **-** earthquake towers, fizzy bottle rockets and tornado art. Mini-Landing?? **Landing**: Felt making workshop.	

NC Objectives – Skills, knowledge and vocabulary taught through Line of Enquiry	
Science:	**Geography:**
As Scientists we will: be exploring evolution and inheritance. **Evolution and inheritance):** • **1.What are fossils?** • **2.What evidence do we get from fossils?** • **3. Can we create a fact file about Mary Anning?** • **5. Can we understand and present different types of variations as a bar chart?** • **6. Do we understand what inheritance is?** • **7. How can we recognise inherited characteristics?** • **8.What is our understanding of adaptive traits?** • **9 How can we investigate how bird beaks have adapted.** **Vocabulary:** Genes, DNA, Descendants, characteristics, variation, identical, adapt, natural selection, species, chromosomes, variation **Through scientific enquiry, we will be**: • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Using test results to make predictions to set up further comparative and fair tests • Secondary sources- Identifying scientific evidence that has been used to support or refute ideas or arguments • Comparing and fair testing- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	**As Geographers we will:** Human & Physical Geography: • I can identify how and why volcanoes erupt. • I can explain why and where earthquakes occur. <u>How did the Earth evolve?</u> • Children identify how and why volcanoes erupt. How have natural disasters carved Earth's landscape? • Children explain why and where earthquakes. How have natural disasters carved Earth's landscape? • Children identify land-use patterns; and understand how some of these aspects have changed over time. How have natural disasters affected population distribution across Earth? • Children use a map with symbols and keys, 8 compass points and 6 figure grid references to navigate to a location and trace a route. Where is volcano? • Children use a scale to calculate the distance on a map. How far did specific natural disaster reach (e.g. lava flow, tsunami floods)? • Children use digital technology (Google Earth, IPad, data loggers) to record, interpret and present geographical data. What was the impact of significant natural disasters on life (e.g. migration, resettlement)? **Vocabulary:** topographical feature, coast, river, island, cape, delta, peninsula, gulf, mountain, hill, valley, plateau, plain, desert, water cycle, evaporation, transpiration, condensation, precipitation, run-off, river, tidal river, estuary, stream, lake, tributary, current, bank, delta, mouth, source, fresh water, saltwater, mountain, mountain range, tectonic plates, force, contour, altitude, elevation, erosion, summit, peak, ascent, descent, vegetation, biome **Additional Year 6 Vocabulary:** volcano, Ring of Fire, magma, mantle, fault, eruption, sill, vent, eruption, crust, extinct, core, conduit, dormant, ash, active, crater, earthquake, after shock, epicentre, fault line, fore shock, main shock, magnitude, Mercallie scale, micro quake, Richter scales, seismic, tremor, tsunami **Geographical Skills & Field work:** <u>How did the Earth evolve?</u> ▪ Children use a map with symbols and keys, 8 compass points and 6 figure grid references to navigate to a location and trace a route. Where is volcano? ▪ Children use a scale to calculate the distance on a map. How far did specific natural disaster reach (e.g. lava flow, tsunami floods)? ▪ Children use digital technology (Google Earth, IPad, data loggers) to record, interpret and present geographical data. What was the impact of significant natural disasters on life (e.g. migration, resettlement)? **Vocabulary:** arial map, ordinance survey maps, google map, political map, topographic map, physical map, economic/ resource map, scale, key, symbols, location, compass, direction, bearing, north, south, east, west, northeast (NE), southeast (SE), southwest (SW), northwest (NW), six figure grid reference, grid box, eastings, northings, equator, northern and southern hemispheres, Tropics of Cancer/ Capricorn, Arctic/ Antarctic Circle, longitude and latitude, degrees, colour layering, contour, contour interval, cross section height above sea level, distance, kilometres (kms)

History:	Art
• **As Historians we will be looking at:** -Demonstrate a coherent chronological narrative, knowledge and understanding of Britain's past and the wider world -Show a chronologically secure knowledge and understanding of local, national and global history. -Tell the story of events within and across the time periods I have studied. -Identify specific changes within and across different periods over a long arc of development. -Describe connections, contrasts and trends over short and longer time periods. -Devise questions about change, cause and consequence, similarity, difference and significance of people or events in a wider context. -Explain reasons why particular aspects of a historical event, development, society or person were of particular **significance**.	**As Artists we will focusing on Textiles/Collage (felt, weaving and batiq)** • Experiment with weaving a range of fabrics, exploring texture, colour & effect through overlapping and layering • Revisit weaving skills and incorporate natural materials such as stones, sticks etc.to create own pattern • Study the textile art of Healy & Burke, analyse their use of media and express views in sketchbook • Explore felt making & creating felt sculptures https://www.accessart.org.uk/teenagers-make-small-sculptures-exploring-felt-making-and-transforming-materials/ • Revisit felt, incorporating stitches and embellishments • Study the textile art of Velda Newman (or batik artist) • Explore the process of batik, create a simple design inspired by evolution https://www.accessart.org.uk/making-batik-textiles-in-classroom/ **End piece** – Plan & create a final textiles piece inspired by evolution, incorporating one or more of learned techniques

Opportunities for core subject learning across the curriculum	
As readers and writers we will:	**As mathematicians we will:**

As Readers we will be writing/reading:
• Studying the book 'Floodland' in our VIPERS sessions and reading it daily.
• Survivors
• What Mr Darwin Saw
 	
Talk for writing text: The Caravan (warning tale), The Ice Dagger Dragon (non-fiction report), Lost (finding tale) and Greta Thunberg (non-fiction biography).
	As Mathematicians we will developing our understanding of:
	• tally charts, bar charts and continuous/ discontinuous data –looking at variation in our class.
	• Fractions, decimals and percentages.
	• An introduction to algebra, including finding rules and writing simple expressions.
	  • Measurement: to convert units and build on perimeter, area and volume.
	  • Number, introducing ratio.

Discrete subject teaching - Skills, knowledge and vocabulary taught discretely	
Physical Education	**Music –term 4**
As fit and healthy citizens we will develop skills in: Tag Rugby and Archery,(T3) Hockey and Dance (T4)	**As Musicians we will develop our musical skills and knowledge through Beacon Bristol music scheme:** - Rhythm - Unit 6 Chronology
Computing	**PSHE**
In computing we will develop skills through Teach Computing scheme: scheme: (to be taught in term 5/6) • Web Page Creation (T3) • Introduction to Spreadsheets (T4)	**As fit and healthy citizens we will develop our knowledge through** SCARF scheme unit: Keeping myself safe Rights and responsibilities
RE- term 3	**Science:**
As philosophers we will explore the question: RE Enquiry: What matters most to Christians and Humanists? *Christianity and Humanism*	**Working Scientifically** Evolution and Inheritance – Term 3 Changes of Materials – Term 4
French	**Enquiry Challenge**
Term 3: What Is The Weather? *Banksy – As-tu un animal?* Term 4: School *(Progressive Language Teaching)*	Enquiry Challenge 1: (Art) How can you plan and create a textile inspired by evolution? Enquiry Challenge 2: (Science) How have bird's beaks adapted to their environment?