



Adapt, Evolve, Survive

Synopsis:

Throughout this mission, children will learn about evolution and inheritance through the discoveries of Charles Darwin and Mary Anning. They will look through a scientific lens on how animals have adapted over time to survive and how the minds of eager naturalists and paleontologists shaped what many believe is the answer to how we humans came to existence.

Children will explore Charles Darwin's voyage to the Galapagos Islands and the geographical differences between different parts of the world.

Religious Education - Children will balance the scientific approach to life with the religious one and look at a range of creation origin stories from various religions. They will look objectively at how and why different faiths believe in different reasons for our existence.

Personal Development - children will look at the British Values of 'respect' and 'tolerance', making links between Mary Anning and Charles Darwin's hardships growing up and how people can uplift those around them through simple acts.

Key Vocabulary:

History: validity, continuity, perspective, relevance, judgement, refinement, bias, trend

Geography: charitable, ethical, classification, sustainable, livelihood, poverty, economic, export, observational

Art: composition, perspective, aesthetics, abstract, distorted, impressionistic, recreate, significance

D&T: foraging, toxic, nutritious, execute, resourceful, evolved, influence, reflection

Computing: content, retrieval, strategy, collaboration, intuitive, navigate

Science: evolution, inherit, inheritance, natural selection, characteristics, microorganism, botanist, botany, taxonomy, genus, species

History

Learning Sequence:

Children will explore the origins and life of Charles Darwin and Mary Anning. They will use a range of sources to discover information about their lives and their most famous discoveries, looking at how this has impacted the world we live in today (science links throughout).

Children will look at the validity of sources, and how Mary Anning overcame hardship and lacked recognition for her discoveries

Historical Concepts

Examine different aspects of history eg social, cultural, political and religious, in different contexts

Gain historical perspective by making connections between local, national and international history

Stories & Sources

Construct informed responses that involve thoughtful selection and organisation of relevant historical information

Develop perspective and judgement by weighing evidence and sifting arguments eg propaganda

Explain why contrasting arguments and interpretations of the past exist

Geography

Learning Sequence:

Children will track the journey of the HMS Beagle and Charles Darwin to the Galapagos Islands.

They will explore the human and topographical features of the Galapagos Islands and contrast to the UK, looking at how the UK land patterns have changed over time (making links to evolution of humans).

Children will also examine key aspects of physical geography by delving into the climate zone and biome of the island as well as how and why this process (and the creatures on the islands) have changed over time.

Locational Knowledge

Apply understanding of positional language eg longitude, latitude to explain geographical characteristics eg topography

Secure understanding of how and why the UK's human/physical features, geographical regions, topographical features and land-use patterns have changed over time

Human & Physical Geography

Examine and explain key aspects of physical geography (climate zones, biomes, vegetation belts, rivers, mountains, earthquakes, volcanoes, water cycle)

Examine and explain key aspects of human geography (settlement/land use, economic activity and distribution of natural resources)

Understand the interaction between physical and human processes and features and how these change over time

Place Knowledge

Analyse geographical similarities and differences (regions of UK, European country and N/S America) and communicate geographical concepts in a wide variety of ways

D&T

Learning Sequence:

While making links to geography, children will look at how food grows differently in different climates. They will then plan, prepare and make their own dishes using ingredients not typically found in Western countries.

Food Technology

Know where and how a variety of ingredients are grown, reared, caught and processed and its impact on meal design

Develop crucial life skill of feeding themselves and others affordably and well

Art

Learning Sequence:

Children will emulate Darwin's notebook sketches, looking at Galapagos animals and recreating their own versions.

They will also create a collage, combining visual and tactile qualities to produce a representation of a Mary Anning discovery.

Media & Materials

Capture artistic process in sketch book

In collage, combine visual and tactile qualities

In drawing, use a wide range of pencils to begin to develop a personal style, drawing on work of other artists for inspiration

Skills

Master art/design techniques with wide range of materials

Computing

Learning Sequence:

Children will use IT to gather information and facts about Charles Darwin or Mary Anning, as well as information surrounding their discoveries, from a range of reliable online sources. They will use these to help form their written biographies.

Information Technology

Use the opportunities computer networks offer for communication and collaboration

Appreciate how results are selected and ranked and use this to retrieve accurate content

Be discerning in evaluating the reliability of digital content

Science

Learning Sequence:

Children will explore evolution and inheritance through the lens of Charles Darwin and Mary Anning's research and discoveries.

They will make comparisons and observations from their own heritage and genetics as well as that from other species.

Children will explore the Galapagos islands and the wonders Charles Darwin discovered on his voyage. Here they will identify living things and their habitats, discovering how to classify existing and new plants and animals.

Make Observations

Independently decide which observations to make

Evolution & Inheritance

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

Living things and their habitats

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

Give reasons for classifying plants and animals based on specific characteristics

Writing

Learning Sequence:

Children will have regular opportunities throughout the science, history and geography sequences of learning, explaining findings and observations.

They will use information gathered to plan and write a biography on the life on either Charles Darwin or Mary Anning.

In addition, children will write a persuasive letter from Mary Anning (at the time) to the scientific community to encourage them to acknowledge her for her work and the importance of it due to its historical significance. They will use a range of persuasive features including figurative language and unpick features of good examples, explaining why this is the case.

Language & Vocabulary

Select appropriate language and vocabulary to reflect their understanding of audience and purpose

Use dictionaries (and thesauruses) to check meaning of new words/language

Understand the following terminology: Subject, object; active, passive; synonym, antonym; and ellipsis, hyphen, colon, semi-colon, bullet points

Understand the following terminology: modal verb, relative pronoun; relative clause; parenthesis, bracket, dash; and cohesion, ambiguity

Become familiar with the language of writing eg figurative language, imagery, style and effect

Plan, Draft, Edit & Evaluate

Use dictionaries to check the spelling and meaning of words

Identify audience and purpose when writing

Note and develop initial ideas drawing on reading

Select appropriate grammar and punctuation and understand how these can change/enhance meaning

Assess effectiveness of own and others' writing

	<p>Propose changes to grammar, punctuation and vocabulary to enhance meaning/effectiveness</p> <p>Ensure correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register</p> <p>Précis longer passages</p> <p>Proof-read for spelling and punctuation errors</p>
Grammar & Punctuation	<p>Use verb tenses consistently and correctly throughout their writing</p> <p>Use perfect form to indicate time/cause</p> <p>Use colons to introduce a list and mark boundaries between clauses</p> <p>Use the semi-colon, colon and dash when writing lists or as the boundary between independent clauses</p> <p>Punctuate bullet points consistently</p> <p>Use wider range of cohesive devices (repetition of word/phrase, adverbials and ellipsis)</p> <p>Use hyphens to avoid ambiguity</p>
Text Structure & Features	<p>Summarise main ideas from more than one paragraph using evidence</p> <p>Use knowledge of language and structure gained from stories, plays, poetry and non-fiction in their writing</p> <p>Reflect understanding of audience and purpose through choice of grammar, vocabulary and structure</p> <p>Use a wide range of devices to build cohesion within and across paragraphs</p> <p>Use further organisational and presentational devices such as headings, sub-headings, columns, bullets, or tables, to structure text</p> <p>Evaluate how authors use language and consider effect on the reader</p>
Transcription	<p>Spell some words with silent letters</p> <p>Continue to distinguish between homophones and other words that are often confused</p> <p>Use a thesaurus to look for suitable synonyms</p> <p>Choose the writing implement best suited to the task</p> <p>Write legibly, fluently and with increasing speed by: choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters</p> <p>Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary</p> <p>Understand verb prefixes eg dis-, de-, mis-, over- and re-</p>