



The Tree of Life

Year Group: Term: 3, 2019

Overview – Am amazing look at the story of evolutionary science and the way one man's revolutionary theories changed the world. We will explore a range of diverse habitats and the weird and wonderful creatures that have adapted to live there; not forgetting those who just couldn't survive. We will follow Charles Darwin on his epic voyage in search of the origin of the species, consider the importance of fossil evidence and discover the dramatic developments since his era including D.N.A.

Subject Focus:

- Science

Home Learning:

- Inherited characteristics -family discussion and study of photos. Who do you look like? Whose abilities and mannerisms do you have?
- Research and create a poster explaining adaptation of a creature to its habitat
- What would Darwin have packed in his suitcase?
- Darwin's Diary - a day on the Beagle

Enrichment:

- a dinosaur fossil workshop by Dinostar
- a talk by a local enthusiast with a wide collection of fossils for pupils to explore
- a visit from a local bee keeper

Environment:

-

Projects:

- A class timeline of evolution

Links to English, including genres:

TEXT TYPES

- *Explanation
- *Biography
- *Formal letter

Incidental writing opportunities:

- *Short explanations within a non-chronological report
- *Diary entries
- *Description

Key Questions:

Why are all humans different?

How has life evolved from single celled organisms in warm, shallow seas to today when the Earth is teeming with millions of different species?

Is the answer to be found in world's Holy books or in scientific theory?

Key Skills for Learning:

- co-operation
- resilience and determination to learn from mistakes and peer assessment

SMSC and British Values -

*individual liberty and mutual respect.

*tolerance of those with different faiths and beliefs

Speaking and Listening:

- Pupils' skills will be developed through sharing and evaluating their learning and opinions.
- Pupils' confidence, enjoyment and mastery of language will be extended through public speaking, performance and debate

How you can help at home:

- Listen to your child read at least twice a week, model fluent reading and give advice on how to use expression and punctuation to show understanding and engage the listener.
- Encourage your child to complete any homework set to their best ability and to have it in on time.
- Test your child's instant recall of all tables to 12 and inverses.

Programmes of Study

English:

Writing skills, specific to each text type studied, to be explored, modelled and practised :

- *planning
- *drafting
- *evaluating and editing
- *proof reading
- *presentation

Grammar and Punctuation:

- *drafting a range of complex sentences using subordinating and relative clauses and a variety of phrases
- *using a range of cohesive devices between sentences and paragraphs
- *relationship between prepositions / adverbs
- *progressive tense
- *active / passive
- *formal / informal devices / language to suit texts taught
- *commas for clarity
- *colons and semi colons between clauses
- *hyphens

Spelling:

- *Year 5 /6 statutory word list- secure those outstanding
- *ant / ance / ancy ent / ence / ency
- * hyphenated prefixes
- *adding vowel suffixes to words ending fer
- * /ee/ sound ie / ei
- * ce noun se verb
- * more homophones

Revision of key Year 5 objectives

Maths:

Number Operations

- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

Number Fractions (including decimals and percentages)

- * use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- *compare and order fractions, including fractions >1
- *add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- *multiply simple pairs of proper fractions, writing the answer in its simplest form
- *divide proper fractions by whole numbers
- *associate a fraction with division and calculate decimal fraction equivalents
- *use written division methods in cases where the answer has up to 2 decimal places
- *solve problems which require answers to be rounded to specified degrees of accuracy
- *recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Ratio and proportion

- *solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts
- *solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison
- *solve problems involving similar shapes where the scale factor is known or can be found
- *solve problems involving unequal sharing and grouping using knowledge of fractions and multiple

<p><u>Music:</u> Violin lessons</p>	<p><u>R.E.</u> * a comparison of the creation stories of Christianity, Judaism, Hinduism and Islam</p>
<p><u>Geography:</u> Exploration of the continents and countries featuring in the voyage of the Beagle. Location and physical geography of places visited by Darwin - Brazil, Galapagos Islands, Australia Creatures indigenous to islands Contrast of diverse habitats (and adaptation of creatures to survive there)</p> <p><u>Locational Knowledge</u></p> <ul style="list-style-type: none"> locate the world's countries using maps /concentrating on their environmental regions, key physical and human characteristics, countries and major cities. identify the position and significance of latitude, longitude, Nth and Sth Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime and Greenwich time zones. <p><u>Place knowledge</u></p> <ul style="list-style-type: none"> understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom and a region within South American <p><u>Physical geography</u>, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle</p> <p><u>Geography skills & fieldwork</u></p> <ul style="list-style-type: none"> use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied 	<p><u>History :</u> Timeline of evolution Pre-Darwin theories Mary Anning 1799-1847 *research key people / chronology of events that led to the acceptance of the importance of fossil evidence *attitudes to women/her successes Charles Darwin 1809-1882 - create a time line to write a biography Alfred Wallace 1823-1913-compare the timeline of his life and theories with Darwin's Life on the Beagle</p> <p><u>Historical Enquiry :</u> <u>Questioning</u>- regularly address and sometimes create appropriate, searching questions about change, cause, similarity and difference. <u>Chronology</u> - to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. <u>Connections</u> -to make connections, contrasts and trends over time and develop the appropriate use of historical terms. <u>Information sources</u>- understand how our knowledge of the past is constructed from a range of sources.</p>
<p><u>Computing:</u> *internet safety- sites which allow interaction with others *effectively using the internet to research * coding - design, write and debug programs, use reasoning to explain how simple algorithms work and detect and correct errors *select, use and combine a selection of software including powerpoint, word and excel to collect, analyse, evaluate and present data</p>	<p><u>Art:</u> * develop accuracy of drawing techniques -draw the Beagle *develop techniques for adding shadow and texture *observational drawings -fossils * accurate diagrams *symbolism in Islamic art / Islamic calligraphy</p>

Design and Technology

* make fossils

Design-generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make-select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
• select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

PSHE

- Going for Goals

Science

The Story of Life - life in the water to the Quaternary period- timeline and key changes

Inheritance - cells / chromosomes / DNA / genes

- identifying inherited traits (their own parents / cross breed animals
- distinguish behavioral / acquired traits

Adaptation - How have animals and humans adapted to suit their environment?

- maladaptation - Dodo -How did its adaptation cause its downfall? What might have been a better adaptation?
- classification

Evolution - thinking pre - Darwin and how it affected his theory

- the importance of fossils / belief in extinction / travel and exploration in forming Darwin's theory
- natural selection

Evolution trees - from water to land and sky

The Origin of the Species - evolution of humans

Explanation - how fossils are formed

Evolution and 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.