Year 6: Medium Term Plan: Spring 1

Overall outcome:

Creation of an 'Evolution' game, which allows children to demonstrate their knowledge of the topic.

Hook:

Children will create Reebops – creatures made of marshmallows – choosing features according to their inherited characteristics.

Texts: Origin of the Species by Sabina Radeva, Darwin's Dragons by Lindsay Galvin, Darwin A life in Poems by Ruth Platel, The Great Sea Dragon Discovery by Pippa Goodhart, When Darwin Sailed the Sea by David Long, When Whales walked by Doughal Dixon

Key Vocabulary:

Evolution, inheritance, characteristics, variation, features, species, environment, reproduce, offspring, mutation, survival of the fittest, adaptation, changes over time

Areas of learning (subject)

Science, Literacy, Geography, History,

Art, DT

Resources

Marhsmallows, craft essentials, beads, spoons, cotton wool, straws, sticks, ipads , materials to create a game

Significant individuals

Charles Darwin, Alfred Wallace, Mary Anning

(Corrie Ten Boom for RE Biographies)

In 2000 years, will human bodies look the same as they do now?

Global Goals *15 – Life on Land, 12 – Responsible Consumption and Production*

Curriculum

What will we learn?

Children will be able to:

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

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

describe some of the islands in the Galapagos, the animals that live their and why they are so unique.

recount key findings of Darwin's voyage on the Beagle and show understanding of how his discoveries have contributed to modern scientific thinking.

know the key features of a biography/explanation text and be able to apply this knowledge to write an innovative version.

Six figure grid refences (revision)

explain how pneumatics works.

How to use light and shade when sketching.

Creativity:

How will we show we understand in multiple ways? What elements of Working Scientifically will we cover?

Children will create Reebops – creatures made of marshmallows – choosing features according to their inherited characteristics *(using simple models to describe scientific ideas SC6)*

Children will discuss their inherited characterises and examine the features and traits of species of animals considering which animals have inherited which traits from their parents. *(using simple models to describe scientific ideas SC6)*

Children will research the islands of the Galapagos and will be able to escribe how an animal living in that environment has adapted to enable it to survive. *(reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations)*

Children will research the life and work of Charles Darwin and Mary Anning and write biographies detailing the most significant events of their lives *(identifying scientific evidence that has been used to support or refute ideas or arguments SC7)* This skill will also be used in RE to write a biography of Corrie Ten Boom

Children will investigate the process of adaptation and 'survival of the fittest' through a 'beak and bead' activity, whilst studying Darwin's finches. *(planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary)*

Children will investigate a selection of fossils and consider what they tell us about their evolution over a period of time *(reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations)*

Drawing on their knowledge and understanding of evolution and the work of Darwin, children will create a board game to chart the voyage and discoveries of the Beagle.

Children will explore sketching techniques, inspired by illustrations from 'The Moth'.

Children will use mapping resources to create collages of the Galapagos Islands.

Children will research and create explanatory texts/storyboards to outline an evolutionary process following the model of 'The Moth'.

Investigate pneumatics and use this knowledge to make a moving model of an iguana.

Connections

What are the connections to our curriculum?

Connections to previous learning

Pupils should be taught to:

- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other (Year 2)
- describe in simple terms how fossils are formed when things that have lived are trapped within rock (Year 3)
- recognise that environments can change and that this can sometimes pose dangers to living things (Year 4)

Connections to Future learning

In KS3, children will be taught to:

- heredity as the process by which genetic information is transmitted from one generation to the next
- a simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model
- the variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection
- changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction

Community

What links can we develop ' Near and Far'? What opportunities will we create to use the outdoors?

Contact the Darwin Research Station to find out what they are currently researching.

https://www.darwinfoundation.org/en/about/cdrs

Look at virtual online evidence of scientific research (for example- pictures of Darwin's finches) from UK museums – eg Nat History Museum

Consider how plants and animals are adapted in the local environment.

Discuss hereditary characteristics in familiar animal groupings- eg family groupings- dog breeding etc