



Year 6

Autumn

Why are living things so different from each other?





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Intent: The Why Behind our Topic

Rationale

'Why are living things so different from each other?' will give children an in-depth insight into how living things have adapted through millions of years to suit the environment they live in, what can cause animals to adapt and how this can lead to evolution. They will also explore the similarities and differences between a range of living things and how they can be grouped based on these characteristics through these aims the children will experience becoming: a scientist, a geographer, a historian, an artist and a designer.

Key Curriculum Areas: Science, History, Geography, Art, DT

We will meet the S&L needs of our children by: *Providing opportunities for debates and discussions, giving children relevant key scientific vocabulary – discoveries, key scientists, observable changes, key fossil findings, see word bank for topic related words.*

We will allow children to understand cultural differences and break down stereotypes by: *Acceptance of different religions and beliefs over time, especially in relation to the creation of Earth and all the creatures? Discussions around why different people believe Earth was created in different ways. Exploring the scientific belief that humans have evolved from apes.*

We will meet the SEMH needs of our children by: *Researching why some animals are becoming extinct and what we can do about it to help improve their chances of survival. Creating a text/presentation to persuade everybody to help save an animal of their choice.*

We will meet the socio-economic disadvantages of our children by: *Going on a trip to The Leeds City Museum where children have an opportunity to explore evolution through models of prehistoric beasts, real skeletons and fossils in the life on earth exhibition.*

Purposeful Outcome:

Most children will be able to explain how some animals have adapted to the environment they live in.

Some children will be able to explain how adaptations over time can lead to the evolution of one specie to another or the creation of a new species alongside the existing one.



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Intent: Topic-developed NCS Requirements

Subject	NCS Requirements
<p>Science</p>	<ul style="list-style-type: none"> 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. describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals give reasons for classifying plants and animals based on specific characteristics. describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird describe the life process of reproduction in some plants and animals.
<p>Art</p>	<ul style="list-style-type: none"> to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
<p>DT</p>	<ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately apply their understanding of how to strengthen, stiffen and reinforce more complex structures
<p>TBC</p>	
<p>Writing</p>	<p>Talk for Writing Units: For teacher to decide</p>

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Implement: Topic-developed NCS Requirements

Term Skeleton Coverage	
	<p>The key curriculum objectives will be met through:</p>
Week 1:	<p>History & Geography: Children will explore how animals have been adapted for the different environments they live in with a particular focus on how animals adapt for hot or cold climates. They will look at fossils and explore how living things on Earth have changed over time. Children will research Charles Darwin & Alfred Wallace's discoveries and theories around evolution. Children will investigate how characteristics are passed from parents to their offspring with a focus on dog breeding and how cross breeding creates a new breed e.g. cockapoo. They will go on to look at how different animals are classified based on characteristics and will investigate the differences in life cycle between these different groups.</p>
Week 2:	<p>Topic Week 2 – Art & DT: <i>Children will choose an animal to investigate and will create sculptures/artwork showing how the animals have evolved to live in certain environments. They will also create sculptures/art work showing how humans have evolved from apes.</i></p>
Week 3:	<p>TBC: <i>Added as topic goes on, allowing for reflection, evaluation and reviewal of how topic is going. What still needs to be done to ensure children can answer the question "Why are living things so different to each other?" and achieve the purposeful outcome.</i></p>
Experience:	<p>A trip to Leeds City Museum Creating sculptures showing the evolution of a species.</p>
Reading and Writing	<p>Class Books – I used to be a fish & Amazing evolution.</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div> <p>Shared Reading – Extracts from: I used to be a fish, amazing evolution and the origin of species.</p> <p>Talk for Writing Units: To be decided by the teacher</p>



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Implement: Topic-developed NCS Requirements

Medium Term Plan	
Week 1:	The key curriculum objectives will be met through:
Lesson 1:	<p>Science:</p> <p><i>Adaptation:</i> Begin Lesson 1 with a sorting activity of animals into the correct classifications – fish, mammal, bird, reptile, amphibian, insect – in floor books. KWL grid for the children to show what they already know, want to know and then to complete at the end. Discuss what adaptation means (how it is a result of random genetical mutations) and then allow the children to research plants and animals to find how they have adapted to their environment and climates (focusing on hot and cold climates).</p>
Lesson 2:	<p><i>Inheritance:</i> Look at inherited and acquired characteristics and the difference between these, children explain. Mr Men/Little Miss inherited activity in floor books. Children create own fact-file about themselves and which of their characteristics are inherited and which are acquired – children to use pictures of themselves and their parents to support this (link to pattern seeking).</p>
Lesson 3:	<p><i>Cross breeding:</i> Look at selective breeding and how humans have used this to create different breeds of dogs. Discuss all originally from wolves. Children to research different breeds of dogs, the positive mutations and any negative mutations (eg. Pugs and their breathing, any aggressive dog types).</p>
Lesson 4:	<p><i>Evolution:</i> Matching activity of key vocabulary and definitions covered so far: inheritance, acquired, characteristics, adaptation, mutations, species, offspring, natural selection. Also add in a definition of evolution so the children work out what it means themselves doing the sorting activity. Done in books and floor books using Vocappulary sheet. Discuss Charles Darwin, where he went and then look at what he discovered with the Galapagos finches – do experiment with sweets and different utensils to pick them up. Relate to positive adaptations, variation and natural selection.</p>
Lesson 5:	<p><i>Fossils:</i> Look at what fossils are, how they're made and relate to Mary Anning. Why was she important? How did fossils help Darwin with his theories?</p>
Lesson 6:	<p><i>Evolution related to human beings:</i> How human beings have evolved over time, the changes and different stages of human evolution.</p> <p><i>Freewrite lesson</i></p> <p><i>Possible trip or workshop to Leeds City Museum.</i></p>
Week 2:	Art & DT:



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Impact: Subject Leader and Teacher Evaluation

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Teacher General Review of Topic:

Subject Specific Review of Topic:
Science

Geography:

History:

Art:

DT:

Curriculum Coverage – Assessment Evaluation
Science:

Geography:

History:

Art:

DT: