

Science

Medium Term Plan

Y6: Evolution and Inheritance



Y6: Evolution and Inheritance			Learning	Tier	Vocabulary
Class Text	Darwin's Dragons, Lightning Mary	EYFS + KS1	Plants Living things & their habitats Animals including humans Everyday materials Light Sound Seasonal Changes	Tier 1	change, living, danger, parent, child
Hook	Darwin's Dragons			Tier 2	competition, identical, reproduce/reproduction, formed, reveal, identify, relationships, evidence, theory, contributed, refute, environment
Topic Reflection	Children will be able to explain how evolution has made finches on the Galapagos islands suited to their habitat	KS2	Electricity Earth and Space Forces and Magnets Sound Light States of Matter Properties & Changes of Materials Rocks Evolution and Inheritance Living things & their habitats Animals including Humans Plants	Tier 3	fossil, habitat, conditions, characteristics, traits, organism, variation, offspring, adaptation, evolution, inheritance, species, DNA, gene, mutation, generation, palaeontologist, extinct, natural / artificial selection
Topic Outcome	-				
Scientific Enquiry	Which finches beak is best suited to a certain diet?				

Scientific Concepts
-

Previous Skills	Previous Knowledge	Previous Understanding
<p>Children can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>They can describe the life process of reproduction in some plants and animals</p> <p>They can describe in simple terms how fossils are formed when things that have lived are trapped within rock</p>	<p>Most living things live in habitats to which they are suited and these different habitats provide for the basic needs of different kinds of animals and plants.</p> <p>Environments can change and this can sometimes pose dangers to living things</p>	<p>I understand that animals are adapted to their habitats</p> <p>I understand that fossils are the preserved remains of plants and animals from the past</p>

Lesson	Concepts	Learning Objective	Lesson Outcome	ARE Success Criteria	GD Success Criteria	SEND Success Criteria
Lesson 1	Working scientifically: Make their own decisions about which observations to make, using test results and observations to make predictions or set up further comparative or fair tests.	LO: To identify features that individuals have inherited from their parents	Children learn that offspring inherit traits from their parents, and that organisms that reproduce sexually combine traits from two parents. Children learn about human created hybrids. They create a simple family tree for a range of organisms – e.g. labradoodle, the mule, the zonkey and the loganberry, and discuss which traits they have inherited from their different species parent	I can say what living things can inherit. I can say what cannot be inherited.	I can explain why some of these can be inherited as opposed to environmental reasons	See IEP/EHCP or Birmingham Toolkit for individual targets.
Lesson 2	Working scientifically: Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.	LO: To explain the process of evolution by natural selection	Children learn about the process of evolution by natural selection. They learn that offspring inherit traits of their parents, and that they might occasionally carry a random mutation which gives them a survival advantage and that they pass on to their own offspring. They learn that this process can change a population over time	I can say what natural selection is. I can describe the process	I can make links with inheritance	See IEP/ My Plan/Birmingham Toolkit
Lesson 3	Working scientifically: Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion	LO: To explain how some organisms are adapted to their environment	Children learn that over time, the process of natural selection can cause a range of beneficial traits (adaptations) to build up in a population. They look at a selection of organisms, identify useful adaptations, and explain the survival advantage that they provide	I can say what adaptation means I can identify ways different organism are adapted to their environment I can explain how this helps the organism	I can make links with inheritance	See IEP/ My Plan/Birmingham Toolkit

Lesson	Concepts	Learning Objective	Lesson Outcome	ARE Success Criteria	GD Success Criteria	SEND Success Criteria
Lesson 4	Working scientifically: Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.	LO: To explain how the fossil record helps us understand evolutionary relationships.	Children will look at the fossil record for an animal and identify what changes have happened as the animal has evolved.	I can say what a fossil is. I can describe how fossils are formed. I can identify what fossils tell us about the past.	I can make links with evolution.	See IEP / My Plan / Birmingham Toolkit
Lesson 5	Working scientifically: Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.	LO: To research how palaeontologists developed their ideas on evolution.	Children will research and describe the life and work of significant palaeontologists such as Anning, Darwin and Wallace. Focus on Mary Anning. Show video clip and discuss: What was she famous for? What did she do? Model using appropriate sources to discover more about Mary Anning.	I can use appropriate sources. I can find suitable facts. I can describe why and how Mary Anning is important.	I can say what we can learn from her example.	See IEP / My Plan / Birmingham Toolkit
Lesson 6	Working scientifically: Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.	LO: To plan and carry out a comparative test	Children will plan an investigation to find out which type of Galapagos finches' beaks are best suited to certain diets. Model activity and how we could gather results.	I can make a prediction. I can gather results. I can draw conclusions.	I can evaluate and plan what we could investigate in the future.	See IEP / My Plan / Birmingham Toolkit

Knowledge:	Skills:	Understanding: