Foston CE, Terrington CE VA & Stillington Primary Schools Progression Map

'Love, Learn & Grow Together'

Subject: Biology

Understanding evolution and inheritance

Subject Intent:

Within our Federation of schools, we intend that all our children will develop a deep curiosity about the world around them, and to experience the wonder which comes with gaining a knowledge and understanding about the processes and systems they can and can't see.

Our children will further develop:

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings;
- Confidence and competence in the full range of practical skills;
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations;
- Scientific enquiry skills to be embedded in each topic throughout the school to allow the children to build upon prior knowledge;
- The ability to undertake practical work in a variety of contexts;
- Have a clear understanding of the jobs available from science specialisms.

Key Concept	Overview	EYFS	Key Stage 1	Key Stage 2- Cycle A/C	
Understanding evolution and inheritance	Topic	**All about me Autumn 1 Year A&B**	**Year B** Autumn 2. Human Life Cycle	**KS2** LKS2 Adaptations, UKS2 Humans and Animals over Time	
	Objectives NC/ Milestones	**UTW** Talk about members of their immediate family and community.	To notice that animals, including humans, have offspring which grow into adults. Identify how humans resemble their parents in many features.	**LKS2** Identify how plants and animals, including humans, resemble their parents in many features. Recognise that living things have changed over time.	**UKS2** 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

		Begin to make sense of their own life-story and family's history Make connections between the features of their family and other families. ELG: Talk about the lives of the people around them and their roles in society.		Know that fossils provide information about living things that inhabited the Earth millions of years ago. Identify how animals and plants are suited to and adapt to their environment in different ways.	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.
	Knowledge	To be able to observe and describe changes over time. To know who the different people are in my family. To know the features which make my family unique. To know how life has changed over time for members of my family.	To know that animals have offspring which grow into adults. **Specific examples to be taught:** Humans Pandas Frogs Shark Snake Robin To know that humans have similar features to their parents. **Specific examples to be taught:** Eye colour Hair colour Facial features, to include eye shape, jawline, shape of nose	To know how many features of plants and animals resemble their parents' features. **Specific example/s to be taught:** Inherited genes determine physical features and personality. Inherited diseases, specifically cystic fibrosis and sickle cell. To know that living things have changed over time, in a process called evolution. **Specific example/s to be taught:** Darwin's finches To know that fossils provide information about living things that inhabited the Earth millions of years ago. **Specific example/s to be taught:**	To recognise and understand how living things have changed over time, and that evolution ensures that organisms are fully adapted to their surroundings, gives rise to new species, as well as making others extinct. **Specific example/s to be taught:** Darwin's finches and the dodo To know that fossils w information about living things that inhabited the Earth millions of years ago. **Specific example/s to be taught:** Body fossils – leaves, teeth, shells, bone. They give information about the shape and structure of the organism. Trace fossils – footprints, burrows, excrement. These give information about behaviour, eg how an animal moved and whether it moved alone or with others.

				Body fossils – leaves, teeth, shells, bone. Trace fossils – footprints, burrows, excrement.	To know offspring of parents are the same kind. **Specific example/s to be taught:** Humans Pandas Frogs Shark Snake Robin To know that normally offspring vary and are not identical to their parents. **Specific example/s to be taught:** Humans Cats Dogs To know different ways plants and animals are suited to their environment. **Specific example/s to be taught:** Polar bear Camel Owls Fish To know that adaptation may lead to evolution. **Specific example/s to be taught:** Horse
	Vocabulary	Community School	**Offspring –** young born to animals and humans.	**Organisms** - This is another word that can be used to mean 'living things'.	**Adaptative traits** – a developmental pattern which helps species survive.

		Home Family mother father Sister Brother Aunts Uncles Cousins, daughter, Son, unique	**Features**-Characteristics of animals and plants, eg. feathers, fur, shell, branch etc. **Variation**-Similarities and differences between one animal or plant group. **Variety**-the assortment of plants and animals in the world	**Characteristics** – the features of an organism which distinguish it from another. **Species** – a group of organisms which reproduce with each other and have natural offspring **Offspring** – the young born of living organisms **Inheritance** – when living things reproduce they pass on characteristics to their offspring **Variation** – the difference in characteristics between members of the same species. **Adaptation** – a characteristic of a living thing which helps it to survive in its environment. **Habitat** – the home of an animal or plant. **Environment** – An environment contains many habitats and these include areas where there are both living and non-living things. **Fossils –** the preserved remains or traces of prehistoric life.	**Inherited traits** – traits which are passed on from your parents. **Fossils –** the preserved remains or traces of prehistoric life. **Evolution –** the theory that all living things alive today developed from earlier types. **Mass extinction** – where at least half of all species die out in a short space of time. **Impact –** what happens as a result of something else happening. **Inheritance –** the process by which genetic information is passed from parent to child.