Dereham Church Infant and Nursery School- Science

	Year group: 1, Spring 2	Area/topic: Animals including humans (Animal focus)
	(objectives from NC/ELG/Development matters) **Working scientifically:** *Observing closely, using simple equipment. *Identifying and classifying. *Using their observations and ideas to suggest answers to questions. *Gathering and recording data to help in answering questions. **Animals including humans:** *Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (Year 1, C1) *Identify and name a variety of common animals that are carnivores, herbivores and omnivores (Year 1, C2) *Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) (Year 1, C3)	

Prior learning	Future learning
*Use all their senses in hands-on exploration of natural materials. (Nursery - Humans) *Name and describe people who are familiar to them. (Reception - Humans)	*Notice that animals, including humans, have offspring which grow into adults (Year 2, C5) *Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) (Year 2, C6)

Working scientifically & encouraging scientific enquiry

Observations

*Children will be given the opportunity for hands-on experiences of animals and will make recordings of their observations through drawing or photographs.

Identifying, classifying and grouping

*Children will be able to identify and name common animals.
*Children will group animals based on similarities and differences.

*Children will compare animal groups recognising similarities and differences between mammals, birds, fish, amphibians and reptiles.
*Children to identify and name animal body parts.
*Children will sort animals into the correct category of mammals, birds, fish, reptiles and amphibians.

Pattern seeking
*Children to complete an investigation to record wildlife in the school grounds, children to collect and analyse data.

Research using secondary sources
*Children to see and discuss images and photographs of different animals.
*Children to view labelled diagrams of animals and their body parts.
*Children will view photos of animal teeth to compare predators and prey.

What pupils need to know or do to be secure

Key knowledge and skills	Possible evidence
*I can explain the difference between wild animals and pets. (C3) *I can ask and verbally share questions about animals and the way they look. (A1) *I can look at animal groups (mammals, birds, fish, reptiles and amphibians) and verbally discuss how the animals within the same group look similar to one another and have similar features. E.g., Birds have wings and feathers. (C3) *I can look at animal groups (mammals, birds, fish, reptiles and amphibians) and correctly identify and name the animals within these groups. (C1) *I can identify and name an animals body parts using scientific vocabulary such as eyes, beak, feathers, wings, talons. (C3) *I can notice and explain similarities and differences between animals; as well as between an animal and a human. (C3) *I can label the observable features and structure of animals. (C3) *I can make comparisons between animal groups (mammals, birds, fish, reptiles and amphibians). E.g. Retiles have scales but mammals have fur. (C3) *I can independently name and sort animals into the correct category of mammals, birds, fish, reptiles and amphibians. (C1) *I can name and describe animals; using at least one feature to explain which animal group they belong to and how their structure helps me decide. E.g. an owl and a pigeon are both birds because they have wings. (C1) *I can correctly name animals which I have experienced first-hand. (C1) *I can identify which groups of animals are warm blooded and which are cold blooded. (C3) *I can observe and describe the shape and size of an animals teeth and understand how this can help me to predict what an animal eats.(C2) *I can independently group animals into categories of carnivore, omnivore and herbivore using	**There will be evidence of children meeting the 'I can' statements through:** *Quotes taken from discussions. *Children can correctly use the key vocabulary during lessons. *Adults scribing to evidence children's understanding. *Children recording through drawing. *Photographs of children's learning. *Children completing sorting, grouping and classifying activities.

their teeth to help. (C2)
*I can explain what a carnivore, omnivore and herbivore eats. (C2)

Key vocabulary

Tail, wing, claw, fin, gills, scales, feathers, fur, beak, paws, hooves, antennae, carnivore, herbivore, omnivore, amphibians, reptiles, mammals, bird, fish, warm blooded, cold blooded, endangered, extinct, species, diet, captivity.
Names of animals from each group that children have experienced first-hand.

Common misconceptions

*Children may know that carnivores eat meat but not understand that this can mean they eat other animals and may picture it as just pieces of meat.
*Children may not recognise that humans are animals.
*Children may not recognise that insects are animals.
*Children may think that all bugs are part of the insect group such as spiders.
*Children may confuse reptiles and amphibians and think these animals are the same.
*Children may think all animals in the sea are fish.

Books linking to this area

*RSPB, My first book of birds by Mike Unwin
*My first book of garden bugs by Mike Unwin
*The three little pigs
*One day on our blue planet (range of books) by Ella Bailey
"You're called what?!" by Kes Gray
*Paddington at the zoo by Michael Bond
*Bird count by Susan Edwards Richmond
*Dear Greenpeace by Simon James
*Poo in the zoo by Steve Smallman
*Lift-the-flap creepy crawlies by Sarah Khan
*My friend Earth by Patricia Maclachlan
*Monkey puzzle by Julia Donaldson

Memorable first hand experiences	Opportunities for communication
*Animals visiting the school. *Children completing a wildlife walk to see/find animals. *School trip to see animals at a zoo.	*Children to be given opportunities for communication with partners, groups and whole class to discuss as completing practical activities and also to share findings. *Children to be provided with lots of opportunities to be outside observing animals and encouraged to discuss and describe what they see. *Through the use of Explorify.

Communication and Interaction	Cognition and Learning
*Visual aids, pictures of equipment with words labelled, word mats with pictures for key words in that lesson. *Freedom to explore scientific equipment and investigate in own way. *Hands on experiences to encourage communication and interaction with others. *Pre teaching any new vocabulary.	*Opportunity for lots of hands on exploration and verbally sharing thoughts and ideas. *Freedom to explore scientific equipment and processes. *Pre teaching new vocabulary or concepts. *Activities adapted if needed for safety and ease. *Visual aids, pictures of equipment, mats with key words and pictures *Learning recorded through photos and adult quotes, children not expected to write for recording their understanding. *Using working walls to aid learning and remind of previous learning.
Social, Emotional and Mental health	**Sensory and Physical**
*Awareness of individual needs, any potential triggers within the curriculum and the child's background. *Pre prepare children for any activity they could find triggering or difficult in some way. *Practical activities or experiments to be completed within a smaller group or 1:1 if needed. *If the class are sharing their learning within a large group, take the child in a smaller focus group if they struggle with social situations. *Adjustments made where needed to suit individual.	*Adult support with any practical activities. *Awareness of the individual's likes or dislikes and their own reactions to sensory activities. *If a child enjoys sensory activities, then plan for this wherever possible within the lesson.