

## Key idea: Animals

### SENSE

### NUTRITION

### MOVEMENT

### GROWTH

### RESPIRATION

Muscles need oxygen to release the energy from food to do work.

- Oxygen is taken into the blood in the lungs
- The heart pumps blood through blood vessels to the muscles
- The muscles take the oxygen and nutrients from the blood

Y5

The heart pumps blood around the body

Y5

Oxygen is breathed into the lungs where it is absorbed by the blood

Y5

Different animals mature at different rates and live to different ages

Y5

## Yr 4

Food is broken down by the teeth and further in the stomach and intestines where nutrients go into the blood. The blood takes nutrients around the body

Y4

Nutrients produced by plants move to primary consumers then to secondary consumers through food chains

Y4

Different animals are adapted to eat different foods

Y4

Animals have teeth to help them eat. Different types of teeth do different jobs

Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy

Y3

Movable joints connect bones

Y3

Muscles are connected to bones and move them when they contract

Y3

Many animals have skeletons to support their bodies and protect vital organs

Y3

## Yr 2

Y4

Exercise keeps animal's bodies in good condition and increases survival chances

Y2

Animals have senses to help individuals survive. When animals sense things they are able to respond

Y1

Animals need food to survive

Y2

Different animals move in different ways to help them survive

Y2

Animals move in order to survive

Y1

Animals grow until they reach maturity and then don't grow any larger

Y1

Animals reproduce new animals when they reach maturity

Y1

There are many different animals with different characteristics

Y1

All animals eventually die

## Applications and activities related to new NC – BOLD ITEMS MUST BE TAUGHT

- Children should learn about the growth and development of humans, including the changes experienced in puberty, and moving onto adulthood and old age. They could compare data about the gestation periods of humans and other animals, time to reach adulthood and try and explain how animals are adapted for these differences
- Children should explore how the circulatory system allows food and oxygen to be moved around the body and consider what might happen if these processes were damaged through illness or injury
- Children should be encouraged to explain the links between diet, hygiene and exercise and their impact on health - this should include the role of microorganisms in some diseases. They should look for evidence to support commonly held ideas such as: salt is bad for you; you should drink eight glasses of water per day; blueberries are a 'superfruit'.
- Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty.
- Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.
- Children should consider how some drugs are helpful (in treating illness), and also how some drugs and other substances can be harmful to the human body.

- Y3 - Children should continue to learn about the importance of nutrition (including a balanced diet). Children should be encouraged to think about why a balanced diet for a child might be different to a balanced diet for an adult.
- Y4 - They should consider how plants and animals (including humans) are connected in simple food chains.
- Y3 - Children should be introduced to the main body parts associated with the skeleton and muscles, focusing on their role in support, protection and movement. Children should try to explain the consequences of breaking a bone, and research how it might be treated.
- Y4 - Children need to be taught that the blood carries everything the body needs to where it is needed and so food needs to be broken into small enough pieces to get into the blood from the intestines. Children should be introduced to the digestive system: mouth, tongue, teeth, esophagus, stomach and intestine and explore questions that help them to understand their special functions.
- Y3 - They should be given opportunities to use their knowledge of teeth and skeletons to speculate on the lifestyles of extinct animals and consider how carnivores and herbivores are adapted to what they

- Y1 - Children should be encouraged to use names for the main parts of their body including sense organs. They need to explore question related to how senses aid survival? Children must explore how we hear with our ears and how we can make different sounds and that these sounds can be described using terms high and low, loud and quiet.
- Y1&2 - Children should use the local environment throughout the year to raise and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Children should become familiar with the names of common birds, fish, amphibians, reptiles, mammals and invertebrates, including pets. (Common means local and ones they are interested in or have come across i.e. relevant) and to use the terms carnivore, herbivore and omnivore
- Y1&2 - Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they are not expected to understand how reproduction occurs. The following examples might be used: egg, caterpillar, pupa, butterfly; spawn, tadpole, frog. Growing into adults can include reference to baby, toddler, child, teenager and adult. Maturity is reached when an organism is able to reproduce.