

KS1.CA.T2.1	Area of study: Living things including humans.  Unit aims / outcome: <ul style="list-style-type: none"> <li>Identify that animals, including humans, need the right types and amounts of nutrition and that they cannot make their own food; they get nutrition from what they eat.</li> <li>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> </ul>	
Geographical concepts to organise knowledge: <b>Biology</b> <b>Working Scientifically</b>		
Key strands of learning:		
Hierarchical Strands: (see progression) e.g. plants (Build year on year)	Cumulative Strands: e.g. environment (key features throughout NC)	
Learning in Reception:	Tier 2 <u><b>New</b></u> Nutrients Substances Benefits Excess Prevent infections Fibre Vitamins minerals maintain health skeleton skull/ cranium rib cage spine pelvis collar bone spine vertebra patella/ knee ca cartilage mammal contract relax  <u><b>Review –</b></u> Consumers Muscles balanced diet bones Milk, cheese, fish, fruit, vegetables, butter, orange, lemon, tomatoes	Tier 3 <u><b>New</b></u> Rickets obesity Decay Abdominal Pectoral Bicep Triceps Hamstring Calves cardiac muscle posture

	Birds Fish Amphibians reptiles protection							
NC objective:	Vocabulary and crucial knowledge:							
<ul style="list-style-type: none"> <li>• identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</li> <li>• identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> <li>• describe the simple functions of the basic parts of the digestive system in humans</li> <li>• identify the different types of teeth in humans and their simple functions</li> </ul>	<p><u>Context of study:</u>          This unit is the fifth unit where pupils study animals including humans, as part of the discipline of biology. Pupils have secure knowledge of the life cycle and what animals KS1CBT1.2, what animals, including humans, need to survive KS1CBT1.2 and the importance of a healthy lifestyle KS1CBT1.2. Pupils can identify and name a variety of animals KS1CBT1.1 . Pupils know the names of animals native to the sea, rivers and canals and the features that help them live there KS1CAT1. Pupils can use classification keys to help group, identify and name a variety of living things in their local and wider environment KS2CAT1.1.</p> <p>In this unit, pupils learn that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Pupils further develop their knowledge of what humans need to thrive by learning about a balanced diet, including how sugar can cause tooth decay (which is further built upon in KS2CAT2.2) and obesity, the food groups and their role in human development. New learning includes how humans and some other animals have skeletons and muscles for support, protection and movement. This unit is the precursor to work in KS2CAT2.2 as pupils learn about the digestive system, teeth and food chains.</p> <p><u>Crucial Knowledge:</u></p> <p><u>Nutrition</u>          Know that animals, including humans need food, water and air to survive. Know that all the animals and humans are consumers (they eat food but cannot create it themselves) and rely on a balanced diet to maintain their health.          Know the food that animals and humans eat gives them nutrients for body health and maintenance.          Know that nutrients are substances that help humans and animals to grow.          Know that different food types provide different benefits for humans.</p> <table border="1" data-bbox="453 1805 1390 1995"> <thead> <tr> <th data-bbox="453 1805 810 1845">Food</th> <th data-bbox="810 1805 1390 1845">Main Role</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 1845 810 1957">fruit and vegetables</td> <td data-bbox="810 1845 1390 1957">provide fibre, vitamins and minerals to keep body parts working properly and maintain health</td> </tr> <tr> <td data-bbox="453 1957 810 1995">Milk, cheese, butter</td> <td data-bbox="810 1957 1390 1995">Healthy vision and skin</td> </tr> </tbody> </table>		Food	Main Role	fruit and vegetables	provide fibre, vitamins and minerals to keep body parts working properly and maintain health	Milk, cheese, butter	Healthy vision and skin
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fruit and vegetables	provide fibre, vitamins and minerals to keep body parts working properly and maintain health							
Milk, cheese, butter	Healthy vision and skin							

Orange, Lemon, tomatoes	Prevent infections
Milk, cheese, fish	Help bones development

Know that fibre consists of the parts of plants or seed that your body cannot digest. Fibre is useful because it makes food pass quickly through your body.

Know that vitamins are substances that you need in order to remain healthy which are found in foods.

Know that vitamins are known by letters.

Know the high fat and sugary food does not provide any nutritional value, and can be harmful to health.

Know for example, that a lack of vitamin D leads to a disease called Rickets.

Know the tooth decay is caused by an excess of sugar.

Know that excess fat from fatty foods such as butter and cheese- and created in the body from excess calories- builds up in the body can cause obesity.

#### Human Body

Know what a human skeleton looks like.

Name key parts: skull/ cranium, rib cage, spine, pelvis, collar bone, spine, vertebra, patella/ knee cap, cartilage.

Know that mammals have skeletons and that a human is a type of mammal.

Know that birds, fish, amphibians and reptiles also have skeletons, and that skeletons are designed to keep bodies in the correct shape and help movement as well as offer protections.

Know that humans have muscles.

Know the name and location of the following: abdominal, pectoral, bicep, triceps, hamstring, hamstring and calves.

Know the heart is a special type of muscle called cardiac muscle.

Know that muscles are attached to the bone and are responsible for movement.

Know that when muscles contract and relax that is what causes movement.

Know that joints occur when two bones meet and are able to move together e.g. knee, elbow.

Know that sitting up straight is good for your posture.

#### Working Scientifically:

##### Research:

Children will research different food groups and how they keep us healthy.

- Ask questions: about what different food groups provide our body with and what can happen if we eat too much of one type of food.

- Communicating results: children will design meals based on what they have found out in the research stage.

Identify and classify:

Children will be introduced to the main body parts (some of which they will know from KS1) associated with the skeleton and muscles and find out what their functions are. Children could compare the human skeleton/muscles with another animal (fish, bird or mammal (whale, tiger)) thinking about how it helps protect, support and move the body.

Ask questions: about what do the different bones and muscles do for our bodies.

Predict: which parts of the skeleton and muscles you think animals might have that humans have.

Record: the similarities and differences between a human skeleton and another animal.

Key scientists of study: (other trust schools will have these mapped out if we are struggling)