


Learning journey	Science	Animals Including Humans (Nutrients)	Year 4 Summer 1	
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Building on prior learning	Theme overview	Preparing for future learning	Vocabulary
<p>In key stage 1 children learn about how animals survive and what they need to do so including using their senses to hunt and find food. They also learn about animal life cycles</p> <p>They will be able to discuss foods animals eat and how they use their senses to find food.</p> <p>In Year 3, the children learn about teeth.</p>	<p>A. Animals need a variety of foods to help them grow and survive (Food Groups)</p> <p>B. Different animals require different foods to survive</p> <p>C. Humans require a balanced diet to remain healthy</p> <p>D. Understand how humans digest food</p>	<p>The next linked unit of work is circulation – Y6</p> <p>Children will learn that the circulatory system is made up of the heart, blood and blood vessels. Blood circulates around the body in a way that ensures all muscles in the body get a supply of oxygen and sugar.</p> <p>B. The heart is a muscle and a pump. It pumps blood through blood vessels around the body, delivering oxygen from the lungs and sugar from the intestines to all parts of the body including muscles.</p> <p>C. All animals need oxygen to survive. Air is breathed into the lungs where the oxygen is passed into the blood. Every part of the body needs oxygen, especially muscles.</p> <p>D. Diet, exercise, drugs and lifestyle all have an impact on the body's function.</p>	<p>Digestion, nutrients, absorb, dissolve, blood.</p> <ul style="list-style-type: none"> • Carnivore, herbivore, omnivore, predator and prey and food chain. • Teeth, incisors, canines, molars, cut, grind and chew. • Enamel, crown, root, hygiene, bacteria, acid, cavities, hygiene. • Mouth, tongue, chew, oesophagus, stomach, acid, small intestine, large intestine, rectum
NC coverage and HWJS skills development		Knowledge organisers	
<p>National curriculum coverage</p> <ul style="list-style-type: none"> • 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 • Describe the simple functions of the basic parts of the digestive system in humans • Identify the different types of teeth in humans and their simple functions. 		<p>Chapter 1; Food groups.</p> <ul style="list-style-type: none"> • Animals need a variety of foods to help them grow and survive. The main food groups are: • Meat, dairy and pulses to provide protein for muscles. • Grains and root vegetables to provide carbohydrates for energy. • Fat for insulation and energy. 	

HWJS skills development

What does behaving like scientists mean, can I define it?

What must I teach children so they can do these things?

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| <p>1a. Use my scientific knowledge to predict what might happen.</p> <p>1b. Sometimes I will also need to draw upon observations to help me predict</p> | → | <p>Precise ideas as defined by learning journeys.</p> <ul style="list-style-type: none"> • How to observe closely and carefully enough. • How to measure precisely enough and with appropriate resolution. |
| <p>2a. Use my scientific knowledge to hypothesise why <i>something</i> happened.</p> <p>2b. Sometimes I will also need to draw upon observations to help me hypothesise, these may be from my own experiments or from secondary sources (e.g. when hypothesising why some planets have more moons than others)</p> | → | <p>Precise ideas as defined by learning journeys .</p> <ul style="list-style-type: none"> • How to observe closely and carefully enough. • How to measure precisely enough and with appropriate resolution. |
| <p>3. Plan to investigate how one thing affects another</p> | → | <p>How to identify, measure and control variables in cause and effect investigations.</p> |
| <p>4. Use evidence to describe how one thing affects another</p> | → | <p>How to use evidence to describe how one variable affects another.</p> |

A Model of Progression.

1. Pose problems that require the application of knowledge being taught.
2. Deconstruct the problem to define what a child must understand and be able to do to tackle the problem (including what they need to observe and measure), teach these skills and knowledge **at that point.**
3. As children progress through the curriculum they will tackle problems using new ideas, and when the problem requires with closer observation and more precise measurement.

Good enough progression is being able to tackle these problems. Children gather evidence to describe the relationship between variables (cause and effect) by identifying what must be changed, what measured and what must be kept the same.

In this instance: Precise amounts of calcium carbonate added to different liquids (the independent variable) to observe their effect, make accurate descriptions using scientific language derived from previous units (e.g. dissolve) and observe both immediately and over time. Based on observations and discussions, draw simple conclusions as to that it is acid (in saliva) that rots teeth.

- Fruit and vegetables for minerals, vitamins and fibre. These are essential to keep our bodies working well and protect us from illnesses.

Chapter 2: Variation in animals diet.

- Different animals require different foods to survive. Humans require a balanced diet to remain healthy but healthy diets vary depending upon the type of activity that humans do.

Chapter 3: How humans digest food.

- The nutrients in food have to get to every part of the body. The blood transports them. The role of digestion is to get the nutrients in food to dissolve in the blood. If it doesn't dissolve, it can't enter the blood and be transported.

Connections / deepening understanding

RADE

Assessment

By the end of the unit the children will be able to ...

How is the understanding of this area deepened in other areas of the curriculum? What links are there in the other subjects in the curriculum?	Are the rights of the child relevant in this area of study - do they get referred to in the work?	Details of the objectives that they will have covered within this unit of work	
English – Note making and report writing P.E. – Health and exercise P.S.H.E – The importance of a healthy diet.		<ol style="list-style-type: none"> 1. Animals need a variety of foods to help them grow and survive (Food Groups). Different animals require different foods to survive 2. Humans require a balanced diet to remain healthy 3. Understand that teeth are the first part of the digestive system and that acids will rot them. 	
Assessment recording for the unit - checking the level of pitch of the work			
<u>Key skill(s)/ knowledge to be assessed by the end of the unit</u>	<u>Lower attaining</u>	<u>Middle attaining</u>	<u>Higher attaining</u>
	Description of the level of ability that the child has to use these skill(s)	Description of the level of ability that the child has to use these skill(s)	Description of the level of ability that the child has to use these skill(s)
<p>Details of key skill(s) that this unit will cover That animals need a balanced diet to help them grow and survive:</p> <p>A balanced diet leads to good health in humans. Teeth are the first part in the digestive system That nutrients in the food have to get to every part of the body</p>	<p>Pupils can describe that different foods are needed to help animals and people grow and survive. Pupils can describe that humans require a diet that is balanced in terms of proteins, carbohydrates, fruits/veg and fats. Pupils can describe that nutrients in food have to get to every part of the body and that the blood helps in this.</p>	<p>Pupils can describe that different foods are needed to help animals and people grow and survive. They can name the main food groups. Pupils can describe that humans require a diet that is balanced in terms of proteins, carbohydrates, fruits/veg and fats and give examples of these foods. They can describe a balanced meal and diet for themselves. Pupils can describe that nutrients in food have to get to every part of the body and that the blood helps in this. They can describe the functions of key parts of the digestive system such as teeth and the stomach. They know that nutrients in food dissolve in the blood and is transported</p>	<p>Pupils can describe that different foods are needed to help animals and people grow and survive. They can name the main food groups.</p> <p>Pupils can describe that humans require a diet that is balanced in terms of proteins, carbohydrates, fruits/veg and fats. They can describe how some diets may vary depending on what humans do. Pupils can describe that nutrients in food have to get to every part of the body and that the blood helps in this. They can describe the journey through the body that food makes and describe what each part does. They know that nutrients in food dissolve in the blood and is transported and that if it doesn't dissolve it can't enter the blood to be transported.</p>

NB: The assessments are completed for two reasons – to enable the class teacher and in turn the subject leader to evaluate the pitch of the learning within the unit in order to consider any necessary updates and for the class teacher to report to parents on the attainment of pupils in the end of year reports.