

Brough Primary School – Curriculum Intention Plan 2023 - 2024



Subject: Science Year Group: Year 3/4		Area of learning: Animals including Humans (Year B)
Links to previous work/Remember when	<ul style="list-style-type: none"> • KS1 – In years 1 and 2, children will have learnt to identify and name common animals that are carnivores, omnivores and herbivores. They will be able to compare animals such as birds, fish, reptiles, amphibians and mammals. They will have learnt to identify and name basic parts of the body and say which part is associated with each sense. They will have learnt that most living things live in habitats and be able to construct simple food chains. • Year 3 – Children in Year 4 will have learnt about the importance of nutrition, the human and animal skeletons and about muscles. <p><u>Working Scientifically</u></p> <ul style="list-style-type: none"> • Asking more relevant questions and used different scientific enquiries to answer them. • Set up some comparative and fair tests. • Made careful observations, and where appropriate taken measurements. • Identify and classify (KS1) • Using their observations to suggest answers to questions. 	
	Year 3/4	Key Skills to be taught
Summer 2 2024 What the children should know at the end of this series of lessons	<ul style="list-style-type: none"> • 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. • Construct and interpret a variety of food chains, identifying producers, predators and prey. <p><u>Working Scientifically</u></p> <ul style="list-style-type: none"> • Set up simple practical enquiries, comparative and fair tests. • Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. • Gather, record, classify and present data in a variety of ways to help answer questions. • Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. • Report on findings from enquiries, including oral. 	

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Vocabulary

Canines, carnivore, digestion, herbivore, incisor, large intestine, molars, oesophagus, omnivore, peristalsis, predator, prey, producer, saliva, small intestine, stomach, mouth, teeth, salivary gland, tongue, bolus, enzyme, liver, pancreas, anus, rectum, stool, bile, internal organs, wisdom teeth, grind. rip, tear, chew, teeth decay, bacteria, acid, plaque, enamel, dentine, pulp, crown, gum, root, hunt.

Sequence of learning	Learning Objectives/Outcomes	Suggested lesson outline
1 Explorify could be used at the start of the unit as a stimulus.	<p>Learning Objective: I can name the basic parts of the digestive system and describe their functions.</p> <p>Key Knowledge: When we digest food we use a lot of internal organs. Each organ has its own job to do. The order of the digestive process.</p> <p>Enquiry Type: Gather, record, classify and present data in a variety of ways to help answer questions.</p>	<p>Recap – What happens when we eat food?</p> <p>Digestive System Starts at the mouth, where food enters. The teeth rip, tear and chew food which mixes with saliva from the salivary gland. The tongue shapes this into a bolus and we swallow it. Bolus travels down the oesophagus through peristalsis (muscle contractions). Bolus enters the stomach where enzymes and acids break up the food. What is left enters the small intestine, where the liver produces bile which helps absorb fat and the pancreas produces enzymes which break down fat, protein, and carbohydrate. The remains the enter the large intestine, which squeeze the water out before what is left forms a stool; in your rectum.</p> <p><i>After the lesson input, the children label the parts of the digestive system and try to match the correct organ to the correct function. Some children could order the name cards, rather than label the diagram.</i></p>
2	<p>Learning Objective: I can identify the different teeth and describe their functions.</p> <p>Key Knowledge: We use our teeth when we eat to tear and chew our food. Adults can have as many as 32 teeth.</p>	<p>Recap – Can you name all 12 parts of the digestive system?</p> <p>Types of teeth In this lesson the children learn about all the different types of teeth and their functions.</p> <p><i>Children label the location of the different types of teeth on a diagram of a mouth</i></p>

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	<p>Children have more than 20. Your first set of teeth are called your milk teeth. Incisors are used for biting and cutting, canines are used to rip and tear, premolars are used to hold and crush, molars are used to grind food before we swallow it. Wisdom teeth are basically extra molars.</p> <p>Enquiry Type: Observing closely, using simple equipment. Reporting on findings from enquiries, including oral and written explanations.</p>	<p><i>and then write a short definition of each type of tooth and its function.</i></p>
<p>3 LESSON REQUIRES the plan on one day and the examination and collection of results on a later day.</p>	<p>Learning Objective: I can plan and carry out an investigation. I can communicate my results.</p> <p>Key Knowledge: It is important to keep teeth healthy. When we eat it produces acid in our mouth which can attack our teeth. Tooth decay can be reduced or prevented if we avoid overeating sugar and acidic foods. Brushing teeth twice a day can also help keep our teeth healthy.</p> <p>Enquiry Type: Set up simple practical enquiries, comparative and fair tests. Make systematic and careful observations</p>	<p>Recap – What are the three main types of teeth adults have in their mouth?</p> <p>Teeth and staying healthy Every time we eat sugary or unhealthy food, it is broken down by the bacteria that live in our mouths. The bacteria then produce acid, which can attack our teeth, causing tooth decay. Tooth decay can be reduced or prevented if we avoid overeating sugar and acidic foods. To help your teeth stay healthy, we should eat healthy food. Any snacks we have in-between meals should be low in sugar, such as breadsticks, raw vegetables and fruit. Today children will investigate which type of drink causes the most decay to our teeth.</p> <p><i>Children write an investigation plan covering the question, equipment, variables, method, measure and prediction and how we will keep the test fair. Some of these could be completed prior to the lesson so the children only do part of the plan. After the test has been</i></p>

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		<i>carried out, they should write up and 'communicate' their findings.</i>
4	<p>Learning Objective: I can construct and interpret a variety of food chains. I understand what producers, predators and prey are.</p> <p>Key Knowledge: Nutrition is when we eat food. Animals can be omnivores, carnivorous or herbivores. Scientists use simple food chains to show what different animals eat. Living things can be sorted into producers, prey and predators.</p> <p>Enquiry Type: Gather, record, classify and present data in a variety of ways to help answer questions.</p>	<p>Recap – Can the children remember MRS GREN? Recap the seven life processes.</p> <p>Interpreting Food Chains An arrow in a food chain means 'is eaten by'. We can place herbivores, omnivores and carnivores in simple food chains and identify which is the producer, the prey and the predator.</p> <p><i>Children record some simple food chains labelling them with the key words (prey, predator, producer, omnivore, herbivore and carnivore). They do this by placing pictures of living things to make a workable food chain.</i></p>
5	<p>Learning Objective: I can construct and interpret a variety of food chains. I understand what producers, predators and prey are.</p> <p>Key Knowledge: We know scientists use food chains to show what different animals in a habitat eat.</p> <p>Enquiry Type: N/A</p>	<p>Recap – Can you still remember which organs do which job in the digestive system? Can you remember the seven life processes?</p> <p>Food Chain game Ensure the children know the relationships between all of the organisms in the game. Playing the game – ask the producers (plants) to go and stand in a fixed position within the large area. They cannot move (as plants only move to face the Sun, they can't run around!). Once the producers are fixed, send the animals off to 'hunt'. Once the animal (prey) has been caught by another animal (predator), they must link hands and go to the plant which they think the smaller animal eats. The first group to make a food chain with a plant wins.</p>

5
Have
IPads
available
should
they be
needed to
help the
children
'picture'
particular
organisms.

Brough Primary School – Curriculum Intention Plan 2023 - 2024



		<p>Check the chains are correct. The game can be played several times, and the children can swap labels so that they all get the chance at being the animal and the plant.</p> <p><i>Practical and recap lesson.</i></p>
6	<p>Learning Objective: To demonstrate what has been learnt about animals including humans.</p>	<p>ASSESSMENT LESSON</p> <p>Children complete short formative assessment.</p>

Learning Outcome/product

During this unit of work, children will learn about the importance of the digestive system. They will learn the names and functions of each part of the system and be able to identify the different types of teeth in humans and their purpose. The children will plan and conduct an investigation to answer the question: which drink causes the most tooth decay? They will extend their knowledge of food chains by constructing and interpreting a variety of food chains, identifying producers, predators and prey.

Assessment records	List only those children who have not achieved the expected outcomes.