Subject	Term	Unit
Science- Year 4	Autumn 2	Animals including humans

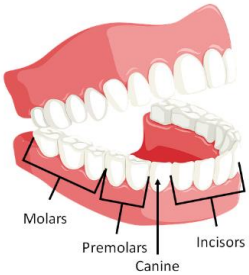
Intent
Interweaving knowledge and enquiry to discover the world around us.

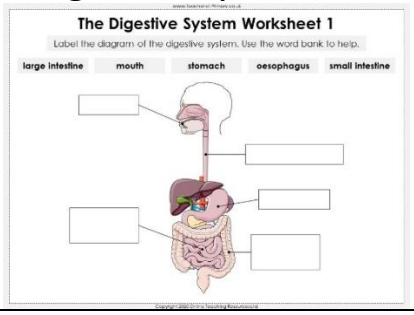
Prior knowledge	National Curriculum
• identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • identify that humans and some other animals have skeletons and muscles for support, protection and movement	• 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.

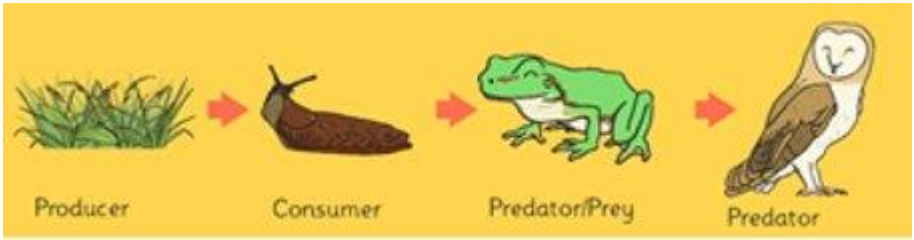
What?	To understand how animals eat and digest food. To look at how food chains work.
Why?	The children need to understand how teeth are used in digestion to better understand how digestion works. The children need to understand where food comes from- this links to their DT learning.
How?	Through experimentation and observation. By making studies of teeth and how teeth work. By investigating and building food chains.

Vocabulary	
Absorb	Soak up or take in.
Canine	Pointed teeth near the front of the mouth of humans and of some animals.
Carnivore	An animal that eats meat
Decay	Gradually destroyed by a natural process.
Digestion	Breaking down ingested food material.
Enamel	The hard white substance that forms the outer part of the tooth.
Excretion	The process of eliminates faces, urine or sweat form the body.
Faeces	The solid waste substance that people and animals get rid of from their body by passing it through the anus.
Herbivore	An animal that only eats plants.
Incisor	The teeth at the front of your mouth which you use for biting into food.
Ingested	When animals or plants ingest a substance they take it into themselves for e.g. by eating or absorbing.
Intestines	The tubes in your body through which food passes when it has left your stomach.

Molar	The large, flat teeth towards the back of your mouth t hat you use for chewing your food.
Muscles	Something inside your body that connects to bones and which you use when you make a movement.
Nutrition	The process of taking food into the body and absorbing the nutrients in the foods.
Oesophagus	The part of your body that carries food from the throat to the stomach.
Omnivore	Person or animal that eats all kind of food incusing meat and plants.
Organ	Apart of your body that has a particular purpose.
Plaque	A substance containing bacteria that forms on the surface of your teeth.
Premolar	Two situated on each side of the jaws between the first molar and the canine.
Saliva	A watery liquid that forms in your mouth and helps you to chew and digest food.

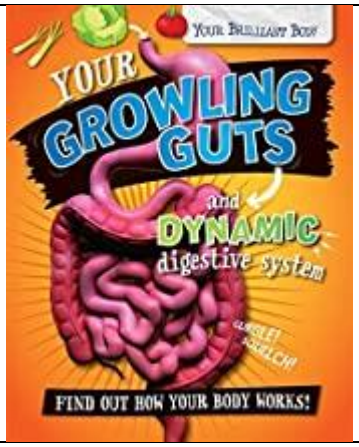
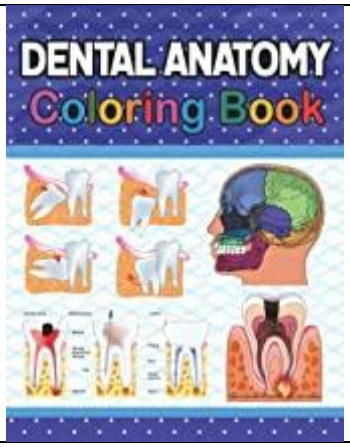
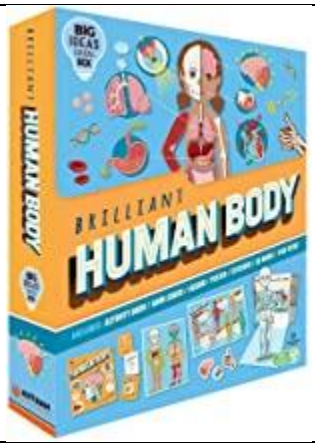
Learning	
Objective	**Learning**
Can I explain the different names of teeth and their functions?	**Identifying and classifying** · **Canines** - pointed for tearing and ripping food. These are usually Used when chewing meet. · **Incisors -** are shovel shaped and help bite lumps out of and cutting food. · **Premolars and Molars** - are flat and they grind and crush food. Show children pictures. Get them to use mirrors to look at their own teeth. Draw and label the different teeth with their function. 
Can I observe? *How does an egg shell/ tooth/ chicken bone change when it is left in cola?*	**0bserving over time** Use the fair test planning boards. Ask the children to work in small groups to think about the variables that we will change and measure. What happens observe and record findings in a self-created table.

	Explain what they have found out. Give reasons. What do we need to do to keep our teeth healthy? Why do we need to do this?
Can I identify? *What are the names for all the organs involved in the digestive system?* *What does each of the organs do?*	**Identifying and classifying** · The smell of food triggers saliva to be produced. · **tongue** pushes the food around while you chew with your teeth. When you're ready to swallow, and pushes a tiny bit of mushed-up food towards your throat. · The digestive system begins with the mouth and teeth where food is ingested and chewed. · Saliva is mixed with the food which helps to break it up. · When the food is small enough to be swallowed, it is pushed down the oesophagus by muscles to the stomach. · In the stomach, food is mixed further. · The mixed food is then sent to the small intestine which absorbs nutrients from the food. any left over broken food then moves on to the large intestine. · The food minus the nutrients arrives in the rectum where muscles turn it into faeces. It is stored here until it is pushed out by the anus. This is called excretion. **Have a picture of the digestive system. Work through each stage explaining what is happening.** What is the digestive system? - BBC Bitesize Children to label the diagram with the different functions of each part of the digestive system. 

Can I classify organisms in a food chain/web? *consumers, predators, prey, omnivores, carnivores and herbivores*	**Identifying and Classifying** Give children food chains to look at and identify and classify the animals to consumers, predators, prey or omnivores, herbivores, carnivores. Model to the children how the food chain works. Labelling each section. Discuss the transfer of energy and how they all start from a plant/producer.  Give children different examples to label. Ask the children to answer questions about the food chain. Which animal is the predator? Etc.
Can I explain who eats who in each habitat?	**Comparison** Construct and interpret different food chains Producer, consumer, predator, prey . Ask the children to use a range of pictures to create their own food chains. This could be done physically or using computer software Purple Mash and J2E. Label with the different parts of the food chain.
Can I classify teeth? *Who's Teeth?*	**Classifying and identifying** Children to have a variety of animals teeth - herbivores and carnivores. They need to classify the teeth. Explaining why they have classified them. Why do certain animals have certain teeth? How does this link to the food chain?

Websites
What are the types of teeth? - BBC Bitesize What is the digestive system? - BBC Bitesize Why do animals have different teeth? - BBC Bitesize

Recommended Reads

Golden Thread
Animals including humans