Year Group: 4 Term: Autumn
Animals including Humans

National Curriculum objectives

S2.1p Describe the simple functions of the basic parts of the digestive system in humans.

S2.1q Identify the different types of teeth in humans and their simple functions.

S2.1s Construct and interpret a variety of food chains, identifying producers, predators and prey.

Specific substantive knowledge—what we want learners to know in this year group?

- Food enters the body through the mouth. Digestion starts when the teeth start to break the food down. Saliva is added and the tongue rolls the food into a ball.
- The food is swallowed and passes down the oesophagus to the stomach. Here the food is broken down further by being churned around and other chemicals are added.
- The food passes into the small intestine. Here nutrients are removed from the food and leave the digestive system to be used elsewhere in the body.
- The rest of the food then passes into the large intestine. Here the water is removed for use elsewhere in the body.
- What is left is then stored in the rectum until it leaves the body through the anus when you go to the toilet.
- Humans have four types of teeth: incisors for cutting; canines for tearing; and molars and premolars for grinding (chewing).
- Living things can be classified as producers, predators and prey according to their place in the food chain

What prior knowledge is this building upon? What should they focus on to build to age related?

- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 - Animals, including humans)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including humans)
- 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. (Y3 - Animals, including humans)

Key questions for AFL:

- *Can you name different parts of the digestive system?*
- *What role does this part play in the digestion of food and drink?*
- *What kind of teeth do humans have? How are teeth important for consuming food?*
- *How does digestion relate to what we have previously learnt about nutrition in Year 3?*
- *Can you create a food chain for a human? Is this different to other food chains? Are humans predators or prey?*

Where is this learning progressing to? (Use with knowledge ladder)

- Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (Y6 - Animals, including humans)
- Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (Y6 - Animals, including humans) •
- Describe the ways in which nutrients and water are transported within animals, including humans. (Y6 - Animals, including

Common misconceptions

Some children may think:

- arrows in a food chains mean ‘eats’
- the death of one of the parts of a food chain or web has no, or limited, consequences on the rest of the chain
- there is always plenty of food for wild animals
- your stomach is where your belly button is
- food is digested only in the stomach
- when you have a meal, your food goes down one tube and your drink down another
- the food you eat becomes “poo” and the drink becomes “wee”.

Working scientifically focuses

S2.1a Ask relevant questions and use different types of scientific enquiries to answer them

S2.1c Make systematic and careful observations

S2.1d Gather, record, classify and present data in a variety of ways to help in answering questions

What types of enquiry will we be undertaking?

Observation, research from secondary sources

Process for enquiry or investigation

- Observe people / personal explore eating different types of food to identify which teeth are being used for cutting, tearing and grinding (chewing).
- Observe the process of modelling the digestive system using Weetabix and tights—what happens to the food as it passes through the model digestive system. Use modelling process to dispel any misconceptions around how food is digested.
- Classify animals as herbivores, carnivores or omnivores according to the type of teeth they have in their skulls.
- Use food chains to identify producers, predators and prey within a habitat. Place humans in a food chain to compare to other predators / prey. Record data in the creation of food chains.

How does it help learners develop their knowledge?

The concept of digestion is hard to understand as much of the process is un-observable. Use of the modelling process as well as experience of biting / chewing will help children to develop understanding of quite an abstract process.
By placing / exploring different food chains, children can consolidate knowledge from KS1 on omnivores, herbivores and carnivores, as well as learning about plants and nutrition of humans, applying all of this knowledge into their food chains. It is important to make links between animals

Key Vocabulary

Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain