

Ashtree Primary School and Nursery Medium Term Plan for Science

Year 4 Autumn Term – Animals including Humans Unit – Teeth and Digestion

Prior Knowledge – Y3

- Step 1** - identify some foods needed for a **healthy and varied (balanced) diet**
name the components of a healthy and varied diet - **carbohydrates, protein, fats, fibre, fruit and vegetables**
describe how their diet is balanced
- *describe an adequate and varied diet for humans, recognising that there are many ways of achieving this*
- Step 2** - know they have **bones and muscles** in their body -
state that they and other animals have skeletons
- Step 3** - identify animals that **do not** have **an internal skeleton (invertebrates)**
group animals with and without an internal skeleton
- Step 4** - describe some observable characteristics of bones
- recognise that their skeletons grow as they grow
- Step 5** - describe the main functions of their skeletons
- state that movement depends on both **skeleton** and muscles
- Step 6** state that when one muscle **contracts another relaxes**

Prior Skills – Y3 - asks relevant questions and uses, with support, different types of scientific enquiries to answer them, beginning to make systematic and careful observation, uses observable criteria to group, sort and classify in different ways, uses relevant scientific language to discuss their ideas and communicate their findings using speaking frames and vocabulary lists to support, **reports on findings from enquiries, in simple scientific language, using oral and written explanations.**

Key Vocabulary Teeth and eating: incisor, molar, canine, diet, decay, healthy, teeth, acids, sugars, mouth, rip, tear, chew, grind, Digestive system: saliva, tongue, toilet waste, nutrients, energy, stomach, large/small intestine, brain, lungs, movement, acids, urine, faeces, oesophagus

Key Knowledge

- **Step 1** – identify a wider range of body parts, including some internal organs (**large intestine, small intestine, brain, lungs, heart, stomach, oesophagus**)
- **Step 2** - locate and name the different organs in the **digestive system**
- **Step 3** - describe the role of each organ in the digestive system
- **Step 4** - state that animals have different **diets** and may have different kinds of teeth and describe the role of each type of teeth in **digestion**
- **Step 5** - recognise they need to take care of their teeth and name the different types of teeth – **incisor, molar, canine**
- **Step 6** - explain how they should look after their teeth and recognise why they need to do so

Key Skills

- Step 1** - gathers and records data in a variety of ways to help in answering questions records and presents findings using drawings, labelled diagrams, keys, tally charts, Carroll diagrams, Venn diagrams, bar charts and tables
- Step 2** - reports on findings from enquiries, in simple scientific language, using oral and written explanations, displays or presentations of results and conclusions
- Step 3** - reports on findings from enquiries, in simple scientific language, using oral and written explanations, displays or presentations of results and conclusions
- Step 4** - identifies differences, similarities or changes related to simple scientific ideas and processes
- Step 5** - uses straightforward scientific evidence to answer questions or to support their findings
- Step 6** - **reports on findings from enquiries, in simple scientific language, using oral and written explanations.**

Curriculum Enhancements

- *Large Teeth model and toothbrush on display.*
- *Open model of human to show internal organs.*
- *Visit from dentist.*



Suggested Activities

S1 – There are many different systems on the body – what ones do you know (circulatory, respiratory, digestive, nervous, etc). Draw the parts of the system on a human outline.

S2 – What parts of our body are used when we eat? Where are they in our bodies? Label the main organs of the digestive system.

S3 – What is the function of each part of the digestion system? Use the practical model of what happens to our food to demonstrate the function each part plays.

S4 – Remind children of herbivore, carnivore and omnivore. Do they think that all of these animal types have the same sort of teeth? Why? Why not? Compare the skulls/jaws of different animals paying particular attention to their teeth.

S5 – What teeth do humans have? Label a diagram of the human mouth. What things can damage our teeth?

S6 – How do we look after our teeth? (Tooth brushing, flossing, visiting the dentist)

Possible Misconceptions

- 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”.

This will lead to . . . Y5 – Life Cycles and Growth

Step 1 - identify ways in which the appearance of humans changes as they get older - **wrinkles, grey hair, height, weight**

Step 2 - identify some characteristics that will not change with age

Step 3 - recognise stages in growth and development of humans including puberty - **new born, infant, child, teenager, puberty, adult,**