

## Preston Primary School Knowledge Organiser

**Topic: Science- Animals  
including humans**

**Term: Autumn 2**

**Year: Unit 3**

**Duration: 7 Weeks**

### The Powerful Knowledge we will take away from this Learning Enquiry (what children will be learning):

Carrying on from our learning about nutrition, animals and humans need certain amounts of the right foods. Even amongst humans, people need different levels of nutrients to be healthy – e.g., an Olympic athlete needs to eat many more calories, more protein, and more carbohydrates than a non-athlete.

Humans have different organs with different roles to play in keeping us healthy and our bodies functioning. Our lungs clean the air we breathe and supply oxygen to our blood. Blood then carries this oxygen to our organs and muscles. We will complete an experiment looking into lung function.

A fair test is one where one variable has been changed – we will change the intensity of exercise to see the impact it has on how our lungs breathe.

Our teeth each play different roles in helping us to chew food. Incisor and canine teeth are sharp and help to rip and tear food. Pre molar and molar teeth chew and grind food down so that we can swallow.

The digestive system digests our food and enables our bodies to use the energy stored within food. We then excrete the waste products as faeces or urine.



### Our Key Vocabulary:

| Word             | Meaning  |
|------------------|--|
| Nutrition        | There are lots of different kinds of vitamins and minerals and nutrition is the term that describes what is in our food.                               |
| Living things    | Animals, including humans, that breathe oxygen and cannot make their own food or water.  |
| Fair test        | A test where two or more things are compared. There is only one variable, and all other elements of the experiment are controlled.                     |
| Variable         | The thing that is changed to carry out an experiment.  |
| Organ            | We have many different organs inside our bodies that each do different jobs. The lungs take in oxygen and emit carbon dioxide to enable us to breathe. |
| Digestive system | The parts of the body that work together to extract energy from food and excrete waste products.   |
| Carbohydrate     | A source of energy that humans ingest via food. We cannot make our own.  |
| Protein          | Protein is essential for building and repairing muscles and other body tissue.   |

### Website links:

[Digestive system - KS2 Science - BBC Bitesize](#)

There are some helpful guides, videos and quizzes looking at the roles played by different parts of the digestive system from teeth to the large intestine.

[Healthy eating and nutrition - KS2 Design and Technology - BBC Bitesize](#)





Videos that discuss nutrition with some ideas for experiments you could complete at home.

### What I already know:

In unit 2, children learned that humans and animals have basic needs for survival: food, water and air. They learnt that humans and animals reproduce.

Last half-term, children have studied the different nutritional requirements of humans and know that we need to eat a healthy and balanced diet. They have learnt about the function of the skeleton and are able to identify the role played by major bones e.g., the rib cage protects our lungs from damage.

### **Types of human teeth**

|                   | <b>Incisor</b>  | <b>Canine</b>   | <b>Premolar</b>   | <b>Molar</b>  |
|-------------------|---|---|---|---|
|                   |  |  |  |  |
| Position in mouth | Front   | Either side of incisors   | Behind canine   | Back  |
| Description       | Chisel-shaped (sharp edge)  | Slightly more pointed than incisors   | 2 points (cusps), 1 or 2 roots  | 4 or 5 cusps<br>2 or 3 roots  |
| Function          | Biting of pieces of food  | Similar function to incisors  | Tearing and grinding food   | Chewing and grinding food   |

The different teeth found in humans and the roles they play in eating.

### The parts of the digestive system:

