



## Knowledge Organiser

**Subject: Science**

**Topic: Health and Movement**

**Year: 3**

### Key Knowledge

- Animals, unlike plants which can make their own food, need to eat in order to get the nutrients they need.
- Food contains a range of different nutrients – carbohydrates (including sugars), protein, vitamins, minerals, fats, sugars, water – and fibre that are needed by the body to stay healthy.
- A piece of food will often provide a range of nutrients.
- Humans, and some other animals, have skeletons and muscles which help them move and provide protection and support.

### Common misconceptions

- Certain whole food groups like fats are 'bad' for you.
- Certain specific foods, like cheese are also 'bad' for you.
- Diet and fruit drinks are 'good' for you.
- Snakes are similar to worms, so they must also be invertebrates.
- Invertebrates have no form of skeleton.

### Key Learning

- 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.
- Can name the nutrients found in food.
- Can state that to be healthy we need to eat the right types of food to give us the correct amount of these nutrients.

### Disciplinary Skills

- Carry out investigations.
- Classify materials according to whether they are magnetic.
- Devise an investigation to test the strength of magnets.

### **Key Concepts**

#### **Nutrition and the Need for Food:**

Animals, including humans, cannot make their own food and must eat a variety of foods to get the nutrients needed for health. This includes carbohydrates, proteins, vitamins, minerals, fats, water, and fibre.

#### **Skeletons and Muscles for Movement and Protection:**

Humans and some animals have skeletons and muscles that provide support, protection, and allow movement.

#### **Balanced Diet for Health:**

To stay healthy, humans need to eat the right types and amounts of food to ensure they get a balance of essential nutrients.

**The Big Question**

**What is the importance of food to our bodies?**

| Key Vocabulary   |                                                                                          |
|------------------|------------------------------------------------------------------------------------------|
| Healthy          | In a good physical and mental condition                                                  |
| nutrients        | substances that living things need to stay alive and healthy                             |
| Energy           | strength to be able to move and grow                                                     |
| Saturated fats   | types of fats, considered to be less healthy, that should only be eaten in small amounts |
| Unsaturated fats | fats that give you energy, vitamins and minerals                                         |

| Nutrient      | Found in... (examples)                                                             | What it does/they do                             |
|---------------|------------------------------------------------------------------------------------|--------------------------------------------------|
| carbohydrates |  | provide <b>energy</b>                            |
| protein       |  | helps growth and repair                          |
| fibre         |  | helps you to digest the food that you have eaten |
| fats          |  | provide <b>energy</b>                            |

|          |                                                                                     |                                                                       |
|----------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| vitamins |  | keep you <b>healthy</b>                                               |
| minerals |  | keep you <b>healthy</b>                                               |
| water    |  | moves <b>nutrients</b> around your body and helps to get rid of waste |

| Linking Thinking Across Our Learning Journey |                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                               |                              |                                                                                                                                                                                                                                                                                                                   |                                                                                           |                                                                                                                                          |
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| Early Years                                  | Year One                                                                                                                                                                                                                                                                                                                                                                    | Year Two                                                                                                                                                                                                                                                                      | Year Three                   | Year Four                                                                                                                                                                                                                                                                                                         | Year Five                                                                                 | Year Six                                                                                                                                 |
|                                              | <b>Animals including Humans</b><br><br>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.<br><br>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.<br><br>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals). | <b>Animals including Humans</b><br><br>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).<br><br>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. | <b>Health &amp; Movement</b> | <b>Animals including Humans</b><br><br>Describe the simple functions of the basic parts of the digestive system in humans.<br><br>Identify the different types of teeth in humans and their simple functions.<br><br>Construct and interpret a variety of food chains, identifying producers, predators and prey. | <b>Animals including Humans</b><br><br>Describe the changes as humans develop to old age. | <b>Animals, including humans</b><br><br>Recognise the impact of diet, exercise, drugs and lifestyle on the way that our bodies function. |