

1. Scientific Investigation

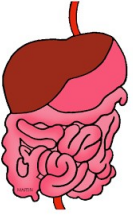
To start Year 8 we revisit the work on scientific investigations covered during Year 7. In this first unit we will be investigating why penguins huddle. All the scientific skills will be covered including **planning** an investigation, displaying data appropriately, **plotting graphs**, drawing **conclusions** from data and **evaluating** investigations.



Following a scientific method and analysing results: food tests

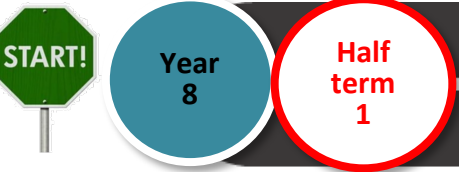
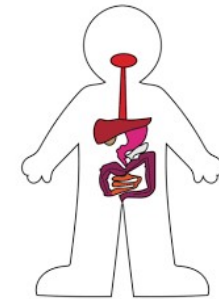
2. Organisms 3: Digestion

In this unit we look in detail at the digestive system. We start by considering what a **balanced diet** is and then we **test** different foods to determine which **nutrients** they contain. Next we look at the organs of the digestive system and what part they play in the process of digesting food before studying **enzymes** and how they help digestion.



3. Organisms 4: Body systems

This unit builds on the work in year 7 where we looked at organisational hierarchy within organisms and focuses on two different body systems. We start by looking at the lungs and how they are adapted for **gas exchange**. After this we look at the different components of the **blood** and how the **heart** is designed to pump it around the body efficiently. We focus on building our **literacy skills** by **communicating scientific ideas** effectively.



4. Ecosystems 2: Plant reproduction

We start by looking at the **reproductive organs** found in plants and how **pollination** requires pollen to be transferred from one plant to another. This links to previous work on interdependence and why insects are important. We then look at **fertilisation** and how seeds are formed before moving on to **germination** and what seeds and plants need to grow. We finish by considering different methods of **seed dispersal** and **investigating** the best shape for wind dispersal



Literacy: explaining scientific ideas using key words – natural

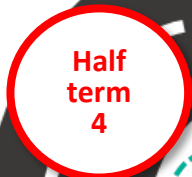


Graph skills: presenting data

Method writing: investigating wing shape

SUMMATIVE ASSESSMENT 1 (organisms 3, matter 3, waves 2) Week 12

Extended writing – journey of the blood around the body assessed task



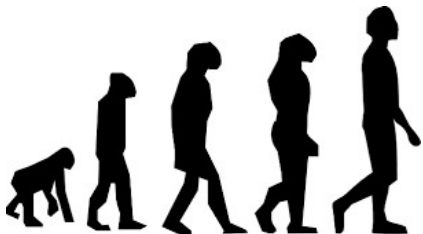
SUMMATIVE ASSESSMENT 3 (ecosystems 2, earth 2, electromagnets 2) Week 29

SUMMATIVE ASSESSMENT 2 (organisms 4, reactions 3, forces 2) Week 21



5. Genes 3 - Evolution

Building on prior knowledge about variation and inheritance we recap how **adaptations** give organisms an advantage and how this can lead to **evolution** via **natural selection**. We look at the work of Charles Darwin and think about why his theory was rejected by many but how **fossils** have provided evidence to support his theory. We finish by looking at how organisms can become **extinct** and methods we can use to try and preserve **biodiversity**.



SUMMATIVE ASSESSMENT 4 (genes 3, matter 4, energy 2) Week 38

