

# Year 1 Spring Term

**Animals, including humans**  
 How are animals the same, how are they different, and why do I need my senses?

Concept

Biology Animals including humans



Connect



Explain



Example



Attempt



Apply



Connect

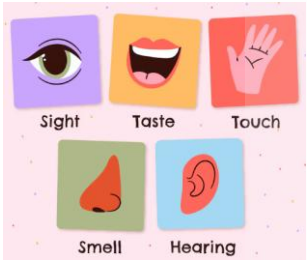
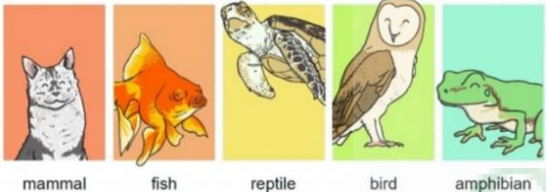
Talk about the different animals we already know.  
 Identify parts of the body we already know.  
 Share observations of animals and plants and explain why some things occur and talk about changes.

Animals are different in various ways such as, structure (e.g., wings) and skin covering (e.g., feathers). These features can be used for identification.  
 Animals can also be grouped by what they eat. Some eat plants, others eat meat and some eat both plants and meat.  
 Humans have key parts in common, but these vary from person to person. Humans (and other animals) find out about the world using their senses.  
 Humans have five senses - sight, touch, taste, hearing and smelling. These senses are linked to parts of the body.

Identify and name some common animals.  
 Describe and compare the structure of a variety of common animals.  
 Identify and name a variety of common animals that are carnivores, herbivores and omnivores.  
 Sort animals according to a criteria.  
 Name and label the parts of the human body. Say which part of the body is associated with each sense.

Name the five senses and to perform simple tests to find out more about them.  
 Name, identify and group animals by a criteria.

I can identify and compare different animals.  
 In Year 2, I will discuss further the similarities and differences between humans and animals.  
 I have sorted and classified. I have made simple observations.



**Vocabulary**  
 Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, pouch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue

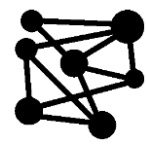
# Year 2 Spring Term

## Animals including humans.

What do animals and humans need to become healthy adults?

Concept

Biology Animals including humans



Connect



Explain



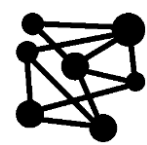
Example



Attempt



Apply



Connect

Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

Sort animals according to a criteria.

Name and label the parts of the human body. Say which part of the body is associated with each sense.

- Animals, including humans, have offspring which grow into adults. In humans and some animals, these offspring will be live young, in other animals, such as birds, there may be eggs laid that hatch to young which then grow to adults.
- The young of some animals do not look like their parents e.g. tadpoles.
- All animals, including humans, have basic needs of feeding, drinking and breathing that must be satisfied in order to survive.
- To grow into healthy adults, they need the right amounts and types of food and exercise.
- Good hygiene is also important in preventing illness.

Investigate how some animals reproduce, grow and change as they get older.

Investigate what a balanced diet is and how to eat healthily as a human.

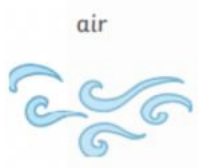
Explore what we need to do to look after our bodies.

Make links between diet, exercise and hygiene for humans to grow healthily.

I know that animals including humans have basic needs of feeding, drinking and breathing to survive.

I know that animals including humans have offspring which grow into adults.

In Year 3, I will identify that animals including humans need the correct type and amount of nutrition and they get nutrition from what they eat.

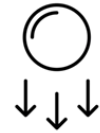


### Vocabulary

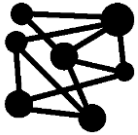
Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples - meat, fish, vegetables, bread, rice, pasta)

## Forces and magnets

Physics Forces and magnets



How can we test the magnetic strength of different magnets?



Connect



Explain



Example



Attempt



Apply



Connect

Identify and name materials.

Describe the properties of materials.

Compare and group together a variety of everyday materials on the basis of their simple physical properties.

- A force is a push or a pull.
- When an object moves on a surface, the texture of the surface and the object affect how it moves.
- A magnet attracts magnetic material.
- The strongest parts of a magnet are the poles.
- Magnets have two poles - a north pole and a south pole. If two like poles, e.g. two north poles, are brought together they will push away from each other - repel. If two unlike poles, e.g. a north and south, are brought together they will pull together - attract.

Explore different simple forces (push/pull/friction) and sort magnetic and non-magnetic materials.

Name parts of a magnet and explain how they work.

Investigate the strength of different magnets.

Talk about what a force is.

Investigate and test the magnetic strength of different magnets.

I know what a force is.

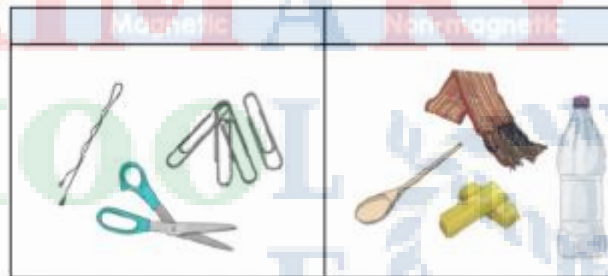
Name parts of a magnet and how they work.

Explain whether a material is magnetic or not.

In Year 5, I will investigate and test other forces.

### Vocabulary

Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole, surface





## Rocks

How can I identify different types of rock?



Connect



Explain



Example



Attempt



Apply



Connect

Identify and name materials.

Describe the properties of materials.

Compare and group together a variety of everyday materials on the basis of their simple physical properties.

- Rock is a naturally occurring material. There are different types of rock e.g. sandstone, limestone, which have different properties.
- Rocks can be hard or soft.
- Rocks may absorb water.
- Rocks can be different shapes or sizes and have different sized grains or crystals.
- Some rocks contain fossils.
- Fossils were formed millions of years ago. When plants and animals died, they fell to the seabed. They became covered and squashed by other material. Over time the dissolving animal and plant matter is replaced by minerals from the water.
- Soils are made up of pieces of ground down rock which may be mixed with plant and animal material (organic matter).

Explore and research how soil is made and changed.

Identify and compare different types of rocks.

Name the 3 types of rocks.

Explore how fossils are formed.

Identify and test which rocks would be suitable for a new cave.

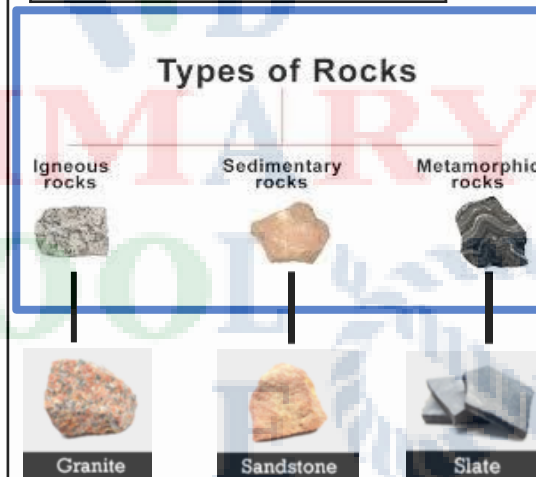
Carry out a fair test. Produce a report and talk about findings.

I can talk about what soil is made up of.

I can compare and group different types of rocks.

I can describe in simple terms how fossils are made.

In Year 6 I will recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth.

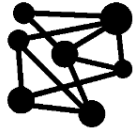


### Vocabulary

Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, igneous, metamorphic, sedimentary, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil, natural, man-made, weathering, erosion, mineral

### How do teeth and the digestive systems of humans help them to survive?

Concept



Connect



Explain



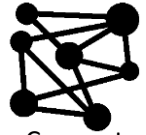
Example



Attempt



Apply



Connect

- Name common animals that are carnivores, herbivores and omnivores.

- Animals, including humans, have basic needs for survival.

- It is important that humans eat a balanced diet and exercise regularly.

- Animals, including humans, need the right types and amount of nutrition from food.

- Animals get nutrition from what they eat.

#### Common Misconceptions

- 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".

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).

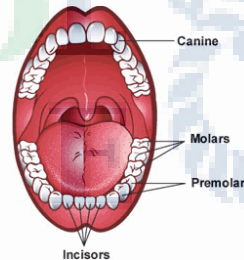
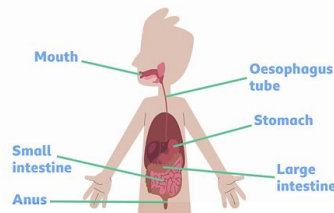
- Explore written and pictorial models of the digestive system.
- Label the digestive system.
- Respond to misconceptions about the digestive system.
- Create a model of the digestive system using a pair of tights!
- compare the digestive system of humans and other animals.

- Name the types of teeth and their functions
- Compare the teeth of carnivores and herbivores. Link teeth to diet.

Comparative test to find out how the teeth and digestive systems of humans help them to survive.

I know that humans have a variety of teeth for different purposes and that alongside a human digestive system, it helps humans to survive.

In **Year 5**, I will learn what animals and plants need to survive at different stages of the life cycle.  
In **Year 6**, we will look at human systems that enable humans to survive.



#### 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



Connect



Explain



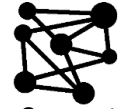
Example



Attempt



Apply



Connect

- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.
- Identify and describe the basic structure of a variety of common flowering plants, including trees.
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (and pets). Describe and compare their structure.
- Identify and name a variety of plants and animals in their habitats, including microhabitats.

Living things can be grouped (classified) in different ways according to their features.

Classification keys can be used to identify and name living things.

Living things live in a habitat which provides an environment to which they are suited (Year 2 learning). These environments may change naturally e.g. through flooding, fire, earthquakes etc. Humans also cause the environment to change. This can be in a good way (i.e. positive human impact, such as setting up nature reserves) or in a bad way (i.e. negative human impact, such as littering). These environments also change with the seasons; different living things can be found in a habitat at different times of the year.

Explore food chains.

Explore the physical adaptations of animals in different habitat.

- Camels store fat
- Cacti store water
- Frogs
- Desert/polar/aquatic

Measure the impact of humans on an environment.

**Identifying and classifying**

How are living things similar and how are they different?

Final - Hexagons - We can make links and discuss the similarities and differences.

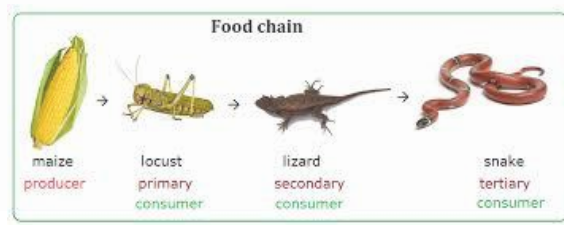
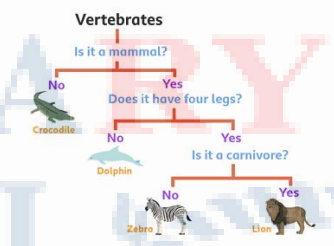
I know that some living things have special adaptations to help them survive and that humans can have a positive and negative impact on some habitats.

In year 6, we will look at how animals and plants adapt to survive and over time this can lead to evolution.

**Common Misconceptions**

- 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.
- animals are only land-living creatures.
- animals and plants can always adapt to their habitats.
- all changes to habitats are negative.

Living things can be classified as producers, predators and prey according to their place in the food chain.



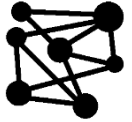
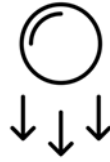
**Vocabulary**

Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate, adaptations, warm blooded, cold blooded, homeostasis (sweat), camouflage, physical features, webbed feet, producers, predators, prey.

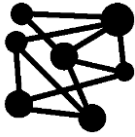
### How does the movement of the Moon and the Earth affect us?

Concept

Physics



Connect



Connect



Explain



Example



Attempt



Apply

Explain how gravitational forces affect objects in the solar system.

Talk about changes across the seasons.

Explain relationship between the Sun and plants.

Discuss sun protection.

- The Sun is a star. It is at the centre of the solar system.
- There are 8 planets in our solar system.
- Planets travel around the Sun in fixed orbits. Earth takes  $365\frac{1}{4}$  days to complete its orbit around the Sun.
- The Earth rotates (spins) on its axis every 24 hours.
- As Earth rotates half faces the Sun (day) and half is facing away from the Sun (night).
- Understand the tilt of the Earth is linked to our seasons.
- The Moon orbits the Earth. It takes about 28 days to complete its orbit.
- The Sun, Earth and Moon are approximately spherical.

Name and order the planets in the solar system. Describe the movement of the Earth and other planets relative to the Sun.

Compare size of planets and duration of their orbit.

Investigate the idea of the Earth's rotation to explain day and night.

Understand how the Earth's tilt links to seasons.

Explore the phases of the Moon.

Discuss how the movement of the Moon and the Earth affect our planet.

Use and apply my understanding of space to my English work.

#### Vocabulary

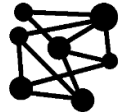
Solar system, Earth, The Sun, star, The Moon, planets, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune), spherical, solar system, galaxy, rotates / rotation, orbit, heliocentric, geocentric, revolution, reflect, tilt, axis, seasons, hemisphere, satellite.



# Year 6 Spring Term

Concept

Biology

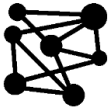


Connect

## Evolution and inheritance

How have living things evolved over time?

How are physical features passed from generation to generation?



Connect



Explain



Example



Attempt



Apply

Identify and describe different habitats

Explain the basic needs of animals and humans to survive.

Describe in simple terms how fossils are formed.

Discuss how environments can change and cause dangers to life.

Describe the life process of reproduction in some plants and animals.

- Living things have changed over time.
- Fossils provide information about living things that inhabited the Earth millions of years ago.
- Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents due to DNA.
- Animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Explain how living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago.

Explain the process of evolution and describe the evidence for this.

Identify how animals and plants are adapted to suit their environment and that adaptation may lead to evolution over time.

Analyse and discuss information fossils give us.

Explain reasons why offspring are not identical to each other or to their parents due to x + y chromosomes and dominant genes.

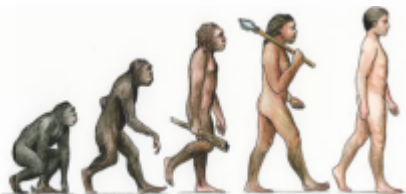
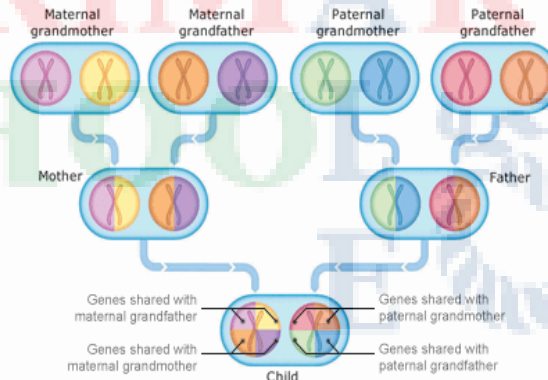
Identify and classify how humans have adapted to their environment.

Talk about how organisms have evolved over time using theories and evidence.

I can talk about how organisms have evolved over time.

I can explain how fossils provide us with information.

I know that offspring vary and are not identical to their parents.



### Vocabulary

Offspring, sexual reproduction, vary, traits, characteristics, recessive, dominant, genes, generation, inherit, cell, chromosomes, suited, adapted, environment, inherited, species, fossils, evolved