



## Science Year 3/4



### Working Scientifically

1. I ask relevant questions and use different types of scientific enquiries to answer them.
2. I can set up simple practical enquiries, comparative and fair tests.
3. I make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
4. I can gather, record, classify and present data in a variety of ways to help in answering questions.
5. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
6. I can report on findings from enquiries through oral and written explanations, displays or presentations of results and conclusions.
7. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
8. I can identify differences, similarities or changes related to simple scientific ideas and processes
9. I can use straightforward scientific evidence to answer questions and support my findings.

### Animals including humans

1. I can describe simple functions of the basic parts of the digestive system in humans.
2. I can identify teeth in humans & their simple functions.
4. I can 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.
7. I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.

### Plants

1. I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
2. I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plants
3. I can describe the way in which water is transported within plants
4. I know the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

### Living things and their habitats

1. I can construct & interpret a variety of food chains, identify producers, predators & prey. I can use the terms primary, secondary and tertiary when describing these chains.
2. I can explain how environmental changes may have an impact on living things.
3. I can use the observable features of plants and animals and to group, classify and identify them into broad groups, using keys or in other ways.

### Rocks

1. I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
2. I can describe in simple terms how fossils are formed when things that have lived are trapped within rock
3. I know that soils are made from rocks and organic matter.

### States of matter

1. I can compare and group materials together, according to whether they are in the solid, liquid or gas state.
2. I know that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
3. I know the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

### Forces and magnets

1. I can compare how things move on different surfaces
2. I know that some forces need contact between two objects, but magnetic forces can act at a distance
3. I know that magnets attract or repel each other and attract some materials and not others
4. I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
5. I describe magnets as having two poles
6. I can predict whether two magnets will attract or repel each other, depending on which poles are facing.

### Electricity

1. I can identify common appliances that run on electricity
2. I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
3. I can identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
4. I recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
5. I can name some common conductors and insulators, and associate metals with being good conductors.

### Light

1. I know that I need light in order to see things and that dark is the absence of light
2. I know that light is reflected from surfaces
3. I recognise that light from the sun can be dangerous and that there are ways to protect my eyes
4. I recognise that shadows are formed when the light from a light source is blocked by an opaque object
5. I find patterns in the way that the sizes of shadows change.

**Sound**

I know how sounds are made, associating some of them with something vibrating  
I recognise that vibrations from sounds travel through a medium to the ear  
I find patterns between the pitch of a sound and features of the object that produced it  
I find patterns between the volume of a sound and the strength of the vibrations that produced it  
I recognise that sounds get fainter as the distance from the sound source increases.

**STEM**

1. I can identify ways in which STEM professionals make a difference to my local community and everyday things I use.
2. I can talk about some of the knowledge and skills needed to work in STEM industries.