Working Scientifically

Plants

The Year 3 Scientist
How well can I …

… ask scientific questions and answer them by doing investigations and experiments.

… carry out different kinds of investigations to answer different questions.

… understand what a fair test is and why it's important to make sure experiments are fair tests.

… use different types of equipment, like thermometers and data loggers, in experiments.

… collect and record data and use it to answer questions.

… take accurate measurements.

… spot patterns in the results of an experiment.

… display data and other information in tables, bar charts, drawings and labelled diagrams.

… use the results of my experiments and other evidence to write conclusions.

… use evidence to answer questions.

… use the results of experiments to make predictions and ask more questions.

… write and talk about the things I've found out in my investigations, using simple scientific words.

… think of ways to improve an experiment.

Identify and describe the functions of different parts of flowering plants? (roots, stem/trunk, leaves and flowers)? Range of plants.

Explore the requirement of plants for life and growth (air, light, water, nutrients from soil, and room to grow)

Investigate the way in which water is transported within plants.

Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Animals (including humans)

Rocks

Light

Forces

The Year 3 Scientist
How well can I ...

Explain the importance of a nutritionally balanced diet.

Identify that animals, including humans, cannot make their own food: they get nutrition from what they eat.

Describe how nutrients, water and oxygen are transported within animals and humans?

Describe and explain the skeletal system of a human.

Describe and explain the muscular system of a human.

Compare and group together different rocks on the basis of their appearance and simple physical properties?

Describe and explain how different rocks can be useful to us?

Describe in simple terms how fossils are formed when things that have lived are trapped within rock.

Describe and explain the difference between sedimentary and igneous rocks, considering the way they are formed?

Recognise that soils are made from rocks and organic matter.

Compare how things move on different surfaces.

Observe how some magnets attract or repel each other?

Observe that magnetic forces can be transmitted without direct contact.

Identify and classify which everyday materials are attracted to magnets and which are not.

Notice that some forces need contact between two objects, but magnetic forces can act at a distance.

Describe magnets having two poles (N & S)? and predict whether two magnets will attract or repel each other depending on which poles are facing.

Recognise that they need light in order to see things.

Recognise that dark is the absence of light.

Notice that light is reflected from surfaces.

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.

Recognise that shadows are formed when the light from a light source is blocked by a solid object.

Find patterns in the way that the site of shadows change.

Explain the difference between transparent, translucent and opaque.