Science Learning Journey

recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

explain the effect of the number and voltage of cells used in a circuit

use recognised symbols when representing a simple circuit

reporting and presenting findings from enquiries

recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

explain that objects are seen because they give out or reflect light into the eye

explain why shadows have the same shape as the objects that cast them.

explain how we see things

recognise that light appears to travel in straight lines

using test results to make predictions to set up further comparative and fair tests

identifying scientific evidence that has been used to support or refute ideas or arguments

compare and give reasons for variations in how components function

recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

identify the effects of air resistance, water resistance and friction

explain how gravity causes objects to fall

describe the Sun, Earth and Moon as approximately spherical bodies

describe the movement of the Moon relative to the Earth

describe the ways in which nutrients and water are transported within animals, including humans.

identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

5/6

use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

describe the movement of the Earth, and other planets, relative to the Sun in the solar system

explain why some changes are irreversible

demonstrate how some changes are reversible

know how mixtures can be separated

recording data and results of increasing complexity

construct a simple series circuit

identify whether or not a lamp will light in a simple series circuit

recognise common insulators and conductors

recognise that a switch opens and closes a circuit

describe differences in life cycles

describe changes as humans age

recognise that volume decreases with distance

5/6

know some materials dissolve and how to reverse this

identify how sounds are made (vibration) and how they travel through a medium and enter the ear

identify appliances that run on electricity

find patterns of pitch and volume

understand the part of evaporation and condensation in the water cycle and link this to temperature

planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

describe the process of reproduction in plants and animals

compare and group materials according to their properties

observe changes of state and take temperature readings to identify when this happens

identifying differences, similarities or changes related to simple scientific ideas and processes

identify types of teeth and their functions

using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

recognise that living things can be grouped in different ways

using straightforward scientific evidence to answer questions or to support their findings.

compare and group materials (solid/liquid/gas)

3/4

construct and interpret food chains

describe the simple functions of the digestive system

recognise that environments change & the impact of this

explore and use classification keys

describe magnets as having 2 poles

investigate the ways in which water is transported within plants

recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

notice how magnets attract and repel each other and other objects

compare and group together different kinds of rocks

recognise that light from the sun can be dangerous

making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment

notice that light is reflected from surfaces

gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

report on findings from enquiries

Identify and describe the features and functions of flowering plants

know how shadows are formed and notice patterns in how they change in size

identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food

asking relevant questions and using different types of scientific enquiries to answer them

describe how fossils are formed

compare how things move on different surfaces

Compare and group materials and objects based on their attraction

notice that some forces require contact but magnets can act at a distance

recognise that soils are made from rocks and organic matter.

explore the requirements of plants for life and growth

recognise that light is needed to see and that darkness is the absence of light

observe and describe how seeds and bulbs grow into mature plants

I carry out simple tests

setting up simple practical enquiries, comparative and fair tests

3/4

I describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

explore the part that flowers play in the life cycle of flowering plants,

identify that humans and some other animals have skeletons and muscles for support, protection and movement.

identify and name a variety of plants and animals in their habitats, including microhabitats

I notice that animals have offspring which grow into adults

I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees

I observe weather across the 4 seasons

I can identify and classify

identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other

I gather and record information

explore and compare the differences between things that are living, dead, and things that have never been alive

I can observe closely, using simple equipment and use this to answer questions

1/2

I can identify and name carnivores, herbivores and omnivores

I observe and describe weather

I know what animals need to stay healthy

I ask simple questions and recognise that they can be answered in different ways

I know what plants need to stay healthy

I can say how the properties of materials make them suitable for a range of uses and can talk about changes to solids

I can identify and classify

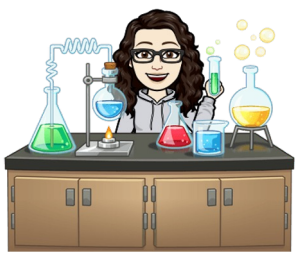
I gather and record information

I can identify and describe the basic structure of a variety of common flowering plants, including trees

I can observe closely, using simple equipment and use this to answer questions

I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

1/2



identify and name a variety of everyday materials

I carry out simple tests

I describe the simple properties of everyday materials and can use this to compare and group materials

I ask simple questions and recognise that they can be answered in different ways

I can describe and compare the structure of different animals

I can identify and name fish, amphibians, reptiles, birds and mammals

I can distinguish between an object and the material from which it is made