Living Things and their Habitats

Describe how living things are classified into groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.

UKS2 Working Scientifically

Children will understand that scientific ideas change over time and will select the most appropriate ways to answer questions using different enquiries. This will include observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources

of information

Secondary School

Science

Curriculum Pathway

Evolution and Inheritance

Understand that living things produce offspring but they are not identical to their parents. Understand how humans and animals have adapted over time. Understand how fossils provided information about living things that inhabited the Earth.

Electricity

Explore the brightness of a lamp or the volume of a buzzer with the number and voltage of cells; understand how components function; use symbols when representing a simple circuit in a diagram.

Animals, including **Humans**

Identify the main parts of the human circulatory system and describe the function of the heart, blood vessels and blood.

Year 6

Earth and Space Describe the movement of the Earth and other planets; describe the movement of the Moon: understand the Sun, Earth and Moon as approximately spherical bodies; understand day and night in relation to the Earth's and the Sun's positioning in the sky.

<u>Forces</u>

Understand gravity and the relationship between Earth and a falling object; explore air resistance, water resistance and

friction.

Light

Understand that light travels in straight lines; know objects are seen because they give out or reflect light into the eye; understand we see things because light travels from light sources into our eyes or to objects and then to our eyes; use this knowledge to understand and explore shadows.

Living Things and their Habitats

Understand reproduction in plants and animals; describe the differences in life cycles of a mammal, an amphibian, an insect and a bird.

Animals including Humans

Describe the changes as humans develop to old age.

Properties and Changes of Material

Compare and group materials on the basis of their properties; explore solvents, solutions and solids; explore filtering, sieving and evaporation; understand reversible and irreversible changes. Recap states of matter and water

cycle.



Year

5

Evolution and Inheritance

How humans and animals have adapted over time. Know how fossils provided information about living things that inhabited the Earth. Understand that living things produce offspring but they are not identical to their parents.

Sound

Understand how sounds are made, associating them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Investigate pitch and volume of a sound, and understand that sounds get fainter as the distance from the sound source increases.

Electricity

Understand what appliances use electricity; make simple electrical circuits; understand the components of a circuit and their purposes; identify conductors and insulators, and research good conductors. Apply knowledge of electricity to make torches.

Living Things and Their

Habitats -Group living things in a variety of ways. Understand how

environments change

Animals, including

Humans

Research the digestive system; identify different types of teeth and their simple functions; interpret food chains and food webs.

States of Matter

Compare and group materials into solids, liquids and gases; observe the changing of state when they are heated or cooled, and measure the temperature at which this happens (°C); understand the different parts of the water cycle.



Animals including Humans

Understand that humans and other animals have skeletons and muscles for support, protecting and movement.

LKS2 Working

Scientifically

Children will ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using econdary sources information.

Plants

Light and Shadows

Recognise light is needed to see

things, dark is the absence of light; light

is reflected from surfaces; light from the

sun can be dangerous and protection is

needed; shadows are formed when the

light from a light source is blocked by

an opaque object; and find patterns in

the way sizes of shadows change.

Observe and describe how seeds and bulbs grow into mature plants. Understand how plants need water, light and a suitable temperature to grow and stay healthy.

Living Things and their Habitats

Identify and name a variety of plants and animals in their microhabitats. Understand how animals get their food, using food chains

Rocks and Soils

Group rocks based on their appearance and physical properties. Understand how fossils are formed. Recognise what soil is made from.

Forces and Magnets

Compare how things move on surfaces; understand

contact and non-contact forces; and explore magnets and magnetism.

Year

Animals, including Humans

Know 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

Living Things and

their Habitats

Know the

differences

between things that are living, dead and things that have

never been alive.

Understand that

living things live in

habitats that are

suited to them.

and animals in their

habitats.

<u>Plants</u>

Describe different functions of parts of a flowering plants: understand what they need for life and growth; understand how water is transported within plants; explore he life cycle of flowering plants.

Use of Everyday Materials

Identify and compare the materials.

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and

suitability of a variety of different

stretching.

Year

Seasonal Changes (Throughout Year 1)

Observe changes across the four seasons. Observe and describe the weather associated with the seasons. Discuss how day length changes according to the seasons.

Everyday Materials (With DT)

Know the difference between an object and its material. Name different materials that are used

everyday and their properties. Compare and group materials based on their properties.

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Animals, including **Humans**

Animals, including

Humans

Describe the importance

of exercise, eating the

right amounts of

different foods and

hygiene for humans.

Identify, name, draw and

label different parts of the human body and know which part is associated with each sense.

Animals, including **Humans**

Understand that animals

have offspring which grow into adults. Describe the basic needs

of animals for survival (food, water and air).

2

Understand how different habitats provide for the basic needs of living things. Identify and name a variety of plants

Know different common animals including fish, amphibians, reptiles, birds and mammals, and learn their structures Understand the

KS1 Working Scientifically

Children will be curious and ask questions. They will answer these questions by observing changes over time, notice patterns, group and classify things, carry out simple comparative tests and find information through secondary sources like books, photographs and videos.

Plants

Identify the features of common flowering plants, including trees. Name a variety of common wild and garden plants, including deciduous and evergreen trees.

Year

Year R Objectives:

- Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities
- and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

class.

Animals including Humans

difference between carnivores, herbivores and omnivores

1

Year



The Seaside

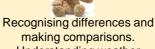
magnetism.

The Farm



Understand the different seasons and what they look like on a farm. Exploring animals on a farm and life cycles.

Beware the Bear!



making comparisons. Understanding weather changes.

Me and My Community



school. Learn different body parts.

R

Year

