Observe, Identify Disciplinary Autumn Use, Explore Concept Compare, Predict Science **Spring** Investigate, PD Long Term Overview Explore Summer Opportunity Demonstrate Explain, Recognise Science Week-Safety Week taking science outdoors **Evolution and Inheritance** Electricity Animals inc. Humans Living things have changed over time The main parts of the human circulatory Fossils provide information about living buzzer is associated with the number and system include the heart, blood vessels, and things that inhabited Earth millions of voltage of cells used in the circuit. blood. years ago. Living things produce offspring of the Nutrients and water are transported within same kind, but normally offspring vary Switches can be used to turn components animals, including humans, in the blood. and are not identical to their parents. on and off in a circuit. Animals and plants are adapted to suit Diet, exercise, drugs, and lifestyle can all their environment in different ways and affect the way our bodies function. that adaptation may lead to evolution. Circuit symbols are used when representing a simple circuit in a diagram. Living Things and their habitats Living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants, and animals. Science Weektaking science **Crucial Crew** outdoors Animals inc. Humans <u>Light</u> Light travels in straight lines. Humans experience a Objects are seen because they give out or reflect light into the eye. number of changes as they We see things because light travels from $% \label{eq:continuous} % \label{eq$ light sources to our eyes or from light develop to old age. sources to objects and then to our eyes. As light travels in straight lines shadows have the same shape as the objects that National Space Centre Trip <u>Earth and Space</u> Earth and other planets in the Solar <u>Forces</u> Unsupported objects fall towards Earth because of the force of gravity acting System orbit around the Sun. between Earth and the falling object. The Moon orbits round Earth. The Sun, Earth, and the Moon are Air resistance, water resistance, and approximately spherical bodies. friction act between moving surfaces. Some mechanisms including levers, The rotation of Earth results in day and Dissolving night, and the apparent movement of the pulleys, and gears allow a smaller force to Sun across the sky. have a greater effect. Science Weektaking science outdoors Pond dipping States of Matter Living Things and their habitats Sound Sounds are made when something vibrates. Materials can be grouped according to Living things can be grouped in a variety Vibrations from sounds travel through a whether they are solids, liquids, or gases. of ways medium to the ear. Materials can change state when they are The pitch of a sound is affected by how heated or cooled—this happens at Classification keys can be used to help quickly an object vibrates. different temperatures for different group, identify and name living things. The volume of a sound is determined by the strength of the vibrations that produced it. Evaporation and condensation are key Environments can change and this can Sounds get fainter as the distance from the processes in the water cycle. sometimes pose dangers to living sound source increase. Rate of evaporation is affected by temperature.

> Science Weektaking science outdoors

Plants

Flowering plants have roots, a stem/trunk, leaves, and flowers. Plants require air, light, water, nutrients from the soil, and room to grow. Water is transported within plants in

vessels. Flowers play an important role in the life cycle of flowering plants, including pollination, seed formation, and seed dispersal.

<u>Forces</u>

Objects experience different amounts of friction on different surfaces. Some forces need contact between two objects, but magnetic forces can act at a distance.

Some materials are magnetic, meaning they are attracted to a magnet. Magnets have two poles.

Magnets can attract or repel each other, depending on which poles are facing each other.



Switches can be used to turn components

The brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit

Electricity

on and off in a circuit.

Circuit symbols are used when representing a simple circuit in a diagram.

The main types of human teeth are incisors, canines, molars, and premolars. Each type of tooth looks different and has a different function.

Animals inc. Humans

The human digestive system contains a number of organs including the mouth, stomach, oesophagus, and intestines.

Living Things and their habitats

There are differences in the life cycles of mammals, amphibians, insects, and birds.

Plants and animals produce offspring by the life process of reproduction

> POPS irreversible /reversible changes workshop

Properties and Changes of materials

hardness, solubility, transparency, conductivity, magnetism The particular uses of everyday materials, including metals, wood, and plastic depend on their properties.

filtering, sieving, and evaporating. Dissolving, mixing, and changes of state are reversible changes. Changes that result in the formation of new materials are not usually

reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Science Long Term Overview

Animals inc. Humans

Animals, including humans, need the right types and amount of nutrition. Animals cannot make their own food; they get nutrition from what they eat. Humans and some other animals have skeletons and muscles for support, protection, and movement.

Rocks

Rocks can be grouped by their appearance and simple physical properties Fossils are formed when things that have lived are trapped within rock. Soils are made from rocks and organic

Meet Inspiring person Mary

Light

Light is needed to see things Darkness is the absence of light. Light is reflected from surfaces. Light from the sun can be dangerous, and eyes should be protected from sunlight.

Shadows are formed when the light from a light source is blocked by an opaque object.

There are patterns in the way that the size of shadows change

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Plants and growth

Seeds and bulbs grow into mature plants. Plants need water, light, and a suitable temperature to grow and stay healthy.

Habitats (spring

2/summer 1)

never been alive. Plants and animals live in a variety of habitats, including microhabitats.

Things can be living, dead, or

Most living things live in habitats to which they are suited. Habitats provide for the basic needs of different kinds of animals and plants.

The living things in a habitat depend on each other for survival.

Animals obtain their food from plants and other animals. This can be shown using a simple food chain

Uses of materials

Everyday materials include wood, metal, plastic, glass, brick, rock, paper, and cardboard.

The material chosen to make an object or device is based on the suitability of its properties.

The shapes of solid objects made from some materials can be changed by squashing, bending, twisting, and stretching

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<u>Plants</u>

A plant is a living thing.

The main parts of a plant are the stem, leaves, and roots.

Plants can be grown by people or grow in the wild.

Animals and survival

Yorkshire Wildlife

Animals, including humans, have offspring which grow into adults. The basic needs of animals, including humans, for survival include water, food, and air. To remain healthy, it is important for humans to exercise, eat the right

amounts of different types

of food, and have good

hygiene.

pose dangers to wildlife, through housing, traffic, waste, and pollution. Where possible materials should be recycled to reduce landfill and pollution. To ensure a sustainable supply of water and energy, these resources must be used efficiently.

Protecting the environment

Humans and their activities

Trees are a source of food, fuel, oxygen, and timber. Trees provide a habitat for many animals.

> Science Weektaking science outdoors

Rockpool Experience

Seasonal Change

There are four seasons—

associated with different

summer.

seasons.

seasons.

autumn, winter, spring, and

Different types of weather are

Day length varies in different

Animals incl. Humans

Animals can be grouped into fish, amphibians, reptiles, birds, and mammals by their structural features.

Animals can be grouped into carnivores, herbivores, and omnivores by the food they eat. The human body is made of many different parts; each has its own function.

Humans have five senses: sight, hearing, touch, taste, and smell. Each sense uses different body parts.

Seasonal Change

There are four seasons autumn, winter, spring, and summer

Different types of weather are associated with different seasons.

Day length varies in different seasons.

Everyday materials

Objects can be made from a variety of materials.

Everyday materials include wood, plastic, glass, metal, water, and rock.

Different materials have different physical properties.



Summer 2

The natural world. Sea, land and rockpools. Pollution. Season summer.

Summer 1

The natural world Farm animals Where food comes from Hygiene Season spring/summer

Google Earth

Exploring local area

Autumn 1

How I've grown

Autumn 2

The natural world Harvest and where my food comes from. Ice caps and animals Season autumn/winter.

Investigation Ice

Spring 1

The natural world Google Earth exploring the planet. Planets and stars Gravity Light and shadows

Season winter

Gravity moon rock activity.

Google Earth exploring planet

Spring 2

The natural world Insects and spiders Plants Mothers and babies (animals) Season spring

Zoom farmer baby animals

FS2 Area of EYFS

The natural world Skeleton and my body Season Autumn