

2022/3 Curriculum Rolling Programme Science - Class 2 - Y1/2

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 2	Summer 2
Topics - Science taught discreetly or linked to these topics if appropriate					
An Island Home	Fantasy/ Fairy Stories/ Poetry	Our Wonderful World inc Space	Going Places	Dragons, Knights & Castles	Mini beasts & Bees
Ourselves Y1 identify, name, draw and label the basic parts of a human body and say which part of the body is associated with each sense. Build in a timeline - when I was born mum dad, granny etc Y2 Notice that animals, including humans, have offspring which grow into adults. -Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) -Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Work scientifically Observing, through videos first -hand observation and measurement asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions	Plants Y1 Identify and name a variety of plants and trees and classify deciduous and evergreen Y2 Observe and describe how seeds and bulbs grow into mature plants, find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Work scientifically Making predictions, identifying changes and recording their observations through drawing and writing. ELG UtW Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Seasonal changes Y1 observe changes across seasons – observe and describe weather associated with seasons. Y2 observe changes across the four seasons -observe and describe weather associated with the seasons and how day length varies. Work scientifically Making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.	Materials Y1 Compare & group together a variety of everyday materials on basis of their simple physical properties. -distinguish between an object and the material from which it is made -identify & name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock -describe simple physical properties of a variety of everyday materials -compare & group together a variety of everyday materials on the basis of their simple physical properties. Y2-identify &compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper & cardboard for particular uses -find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Work scientifically Performing simple tests to explore questions, What is the best material for,,,link to literacy books	Living Things and their habitats Y1 live in habitats which they are suited & describe how different habitats provide basic needs of animals & how they depend on each other. -identify & name a variety of plants & animals in their habitats, including microhabitats -describe how animals obtain their food from plants & other animals, using the idea of a simple food chain, & identify and name different sources of food. Y2 -explore & compare the differences between things that are living, dead, & things that have never been alive Work Scientifically Describe conditions in different habitats & microhabitats (under log, on stony path, etc) & find out how the conditions affect no. & type of plants and animals that live there ELG UtW PC&C Describe their immediate environment using knowledge from observation, discussion, stories, non fiction texts and maps	Identify that most things are living Y1 Describe and compare the structure of a variety of common animals. -Name a variety of common animals that are carnivores, herbivores and omnivores Y2 Notice that animals have offspring which grow into adults find out about and describe the basic needs of animals, for survival (water, food and air) -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 & plants, and how they depend on each other -identify & name a variety of plants & animals in their habitats, including microhabitats -describe how animals obtain their food from plants & other animals, using idea of a simple food chain, & identify & name different sources of food. Work Scientifically Sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive?' ELG UtW TNW Explore the natural world around them, making observations and drawing pictures of animals and plants;

2023/24 Curriculum Rolling Programme Science - Class 2 - Y1/2

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 2	Summer 2
Topics - Science taught discreetly or linked to these topics if appropriate					
Ourselves	Traditional Stories Christmas	Antarctica leading on to non-fiction texts	Stories from Other cultures	Rivers/Water	Seas and Oceans
Animals, including Humans Y1 -identify, name draw and label the basic parts of a human body and say which part of the body is associated with each sense. Y2 -find out about and describe the basic needs of animals, including humans, for survival (water, food and air) -describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. -notice that humans, have offspring which grow into adults Working Scientifically -asking simple questions and recognising that they can be answered in different ways	Seasonal changes Autumn, Winter – •observe changes across seasons – observe and describe weather associated with seasons. Plants Y1 Identify and name a variety of plants and trees and classify deciduous and evergreen Working Scientifically -using their observations and ideas to suggest answers to questions ELG UtW TNW Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Mini topic – identify and name a variety of common animals that are carnivores, herbivores and omnivores	Seasonal changes Spring – Living – non living (stick man). Forest Schools Link Distinguish between an object and the material from which is made. ELG UtW PC&C Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps; Working Scientifically -using their observations and ideas to suggest answers to questions	Plants Y1 -identify and describe the basic structure of a variety of common flowering plants, including trees. Y2 -observe and describe how seeds and bulbs grow into mature plants -find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Working Scientifically -observing closely, using simple equipment -gathering and recording data to help in answering questions -performing simple tests	Animals Y1 -identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals -identify and name a variety of common animals that are carnivores, herbivores and omnivores -describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Y2 -notice that animals have offspring which grow into adults Working Scientifically -identifying and classifying ELG UtW TNW Explore the natural world around them, making observations and drawing pictures of animals and plants;	Animals cont. → Seasonal changes – observe changes and describe weather associated with seasons. How this affects seas, tides. Keep Ocean clean - plastic waste ELG UtW TNW Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

2022/3 Curriculum Rolling Programme Science - Class 3 - Y3/4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 2	Summer 2
Humanities topics. Science taught discreetly or linked to these topics if appropriate					
Stone/Bronze/Iron Age	Land Use/ Settlement	Riotous Royalty/ Timelines	The UK	Greeks	Africa KS2 Play Greece goes to pieces?
Rocks y3 -compare & group together different kinds of rocks on basis of appearance & simple physical properties -describe in simple terms how fossils are formed when things that have lived are trapped within rock -recognise that soils are made from rocks and organic matter Working Scientifically -identifying differences, similarities or changes related to simple scientific ideas & processes	Sound Y4 -identify how sounds are made, associating some of them with something vibrating -recognise that vibrations from sounds travel through a medium to the ear -find patterns between the pitch of a sound and features of the object that produced it -find patterns between volume of a sound & strength of the vibrations that produced it -recognise that sounds get fainter as the distance from the sound source increases Working Scientifically -making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	Electricity Y4 -identify common appliances that run on electricity -construct simple series electrical circuit, identifying & naming its basic parts, including cells, wires, bulbs, switches & buzzers -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 -recognise that a switch opens & closes a circuit & associate this with whether or not a lamp lights in a simple series circuit -recognise some common conductors & insulators, & associate metals with being good conductors Working Scientifically -setting up simple practical enquiries, comparative and fair tests -using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	States of Matter Y4 -compare and group materials together, according to whether they are solids, liquids or gases -observe 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) -identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature Working Scientifically -setting up simple practical enquiries, comparative and fair tests -making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers -using straightforward scientific evidence to answer questions or to support their findings.	Habitats & Animals Y4 -recognise that living things can be grouped in a variety of ways -explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment -recognise that environments can change and that this can sometimes pose dangers to living things Animals - including Humans construct and interpret a variety of food chains, identifying producers, predators and prey Working Scientifically -gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	Habitats & Animals Y4 cont. Relate to African animals Dangers - environmental factors Working Scientifically -gathering, recording, classifying and presenting data in a variety of ways to help in answering questions -identifying differences, similarities or changes related to simple scientific ideas and processes -reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

2023/24 Curriculum Rolling Programme Science - Class 3 - Y3/4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 2	Summer 2
Humanities topics. Science taught discreetly or linked to these topics if appropriate					
Rampaging Romans	Theme/Aspect Study Roads - Railways ? link roman roads	All Around the World	Extreme Weather	Mayans	Amazon Rainforest KS2 Play - Emerald Crown?
Animals- including Humans Nutrition, bones Y3 - 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 -identify that humans and some other animals have skeletons and muscles for support, protection and movement Working Scientifically -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	Animals- including Humans - Digestion Y4 -describe the simple functions of the basic parts of the digestive system in humans -identify the different types of teeth in humans and their simple functions -construct and interpret a variety of food chains, identifying	Forces + Magnets y3 -compare how things move on different surfaces -notice that some forces need contact between 2 objects, but magnetic forces can act at a distance -observe how magnets attract or repel each other and attract some materials and not others -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 -describe magnets as having 2 poles -predict whether 2 magnets will attract or repel each other, depending on which poles are facing Working Scientifically -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	cont. 	Plants y3 -identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers -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 plant -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 Working Scientifically -asking relevant questions and using different types of scientific enquiries to answer them	Light y3 -recognise that they need light in order to see things and 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 an opaque object • find patterns in the way that the size of shadows change Habitats & Animals Y4 Relate to Amazon animals Dangers - environmental factors Working Scientifically -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

2022/23 Curriculum Rolling Programme Science - Class 4 Y5/6

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 2	Summer 2
Humanities topics. Science taught discreetly or linked to these topics if appropriate					
Geography Marvellous Maps	History Victorians—Significant turning points in British History	Geography The Changing World Enough For Everyone	History Ancient Egyptians	Geography Raging Rivers	History/Geography Local History , Settlements and Land Use
Earth and space Y5 -describe the movement of the Earth and other planets relative to the sun in the solar system -describe the movement of the moon relative to the Earth -describe the sun, Earth and moon as approximately spherical bodies -use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky -explain that unsupported objects fall towards Earth because of the force of gravity acting between the Earth & falling object Working Scientifically -identifying scientific evidence that has been used to support or refute ideas or arguments	Electricity Y6 -associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit -compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches -use recognised symbols when representing a simple circuit in a diagram Working Scientifically -planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Animals, including humans Y5 -describe the changes as humans develop to old age (Link to Health and Relationships) Living things and their habitats Y5 -describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird -describe the life process of reproduction in some plants and animals	Properties of Materials Y5 -give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic -compare & group together everyday materials on basis of their properties, including their hardness, solubility, transparency, conductivity (electrical & thermal), & response to magnets Working Scientifically -planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs -using test results to make predictions to set up further comparative and fair tests	Living things and their habitats Y6 -describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. -give reasons for classifying plants and animals based on specific characteristics Working Scientifically -recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	

2023/24 Curriculum Rolling Programme Science - Class 4 Y5/6

Autumn 1

Autumn 2

Spring 1

Spring 2

Summer 2

Summer 2

Humanities topics. Science taught discreetly or linked to these topics if appropriate

History

Britain at War - turning points in British History

Geography

Economic Activity and Trade including Fair Trade

Geography

Biomes

History

Crime and Punishment Or Inventions from 1066

History

Invaders and Settlers

Geography

Exploring Eastern Europe

Changing Materials Y5

- know that some materials will dissolve in liquid to form a solution, & describe how to recover a substance from a solution
- Compare and group together everyday materials based on solubility.
- use knowledge of solids, liquids & gases to decide how mixtures might be separated, including thro' filtering, sieving & evaporating
- demonstrate that dissolving, mixing and changes of state are reversible changes
- explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Working Scientifically

- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests

Evolution and inheritance Y6

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

Forces Y5

- identify the effects of air resistance, water resistance & friction, that act between moving surfaces
- recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect

Working Scientifically

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

Light Y6

- recognise that light appears to travel in straight lines
- use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Working Scientifically

- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations

Animals including humans Y6

- identify & name the main parts of human circulatory system, & describe functions of heart, blood vessels & blood
- recognise the impact of diet, exercise, drugs & life-style on the way their bodies function
- describe the ways in which nutrients & water are transported within animals, including humans

How to Keep Healthy (Link to Health and Relationships)

Working Scientifically

- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations