| EYFS / National Curriculum Strands | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| EYFS | EYFS |  |  |  |  |  |
| - Ask questions to find out more information <br> - Use observation to look closely - observing change and pattern <br> - Identify and classify <br> - Work together to carry out a simple investigation | Who Helps You? <br> (People around us \& in the community) (explore different forces; talk about different materials \& changes they notice; explore the natural world; the effect of changing seasons on the natural world) | Once Upon A Story! <br> (Celebrations, festivals, seasons, light \& dark) (the effect of changing seasons on the natural world; describe what they see/ hear/feel outside; the effect of changing seasons on the natural world) | How Does Your Garden Grow? <br> (Growth \& life cycles) (plant seeds \& care for growing plants; key features of life cycles; explore the natural world; describe what they see/ hear/feel outside; the effect of changing seasons on the natural world) | Minibeasts \& Megabeasts <br> (Insects to dinosaurs) (respect and care for the natural environment \& living things; key features of life cycles; explore the natural world; describe what they see/ hear/feel outside) | Adventures Near \& Far! <br> (Space, solar system/ ocean adventures) (explore the natural world; describe what they see/ hear/feel outside; explore different forces; talk about different materials \& changes they notice) | All Around the World <br> (Different cultures, communities $\&$ foods) (explore different forces; talk about different materials \& changes they notice; explore the natural world; the effect of changing seasons on the natural world) |
| KS 1 Working Scientifically | Year 1 |  |  |  |  |  |
| - Asking simple questions and recognising that they can be answered in different ways <br> - Observing closely, using simple equipment; <br> - Performing simple tests <br> - Identifying and classifying <br> - Using their observations and ideas to suggest answers to questions <br> $\bullet$ Gathering and recording data to help in answering questions | Everyday Materials (Celebrations) <br> - Distinguish between an object and the material from which it is made <br> - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock <br> - Describe the simple physical properties of a variety of everyday materials <br> - Compare and group together a variety of everyday materials on the basis of their simple physical properties | Animals Including Humans (and Materials) <br> (Polar Adventures) <br> - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals <br> - Identify and name a variety of common animals that are carnivores, herbivores and omnivores <br> - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) <br> - Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense <br> - Describe the properties of everyday materials that are transparent, translucent, opaque, waterproof and flexible <br> - Compare and group materials that are transparent, translucent, opaque, waterproof and flexible | Animals Including Humans <br> (Who Am I?) <br> - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals <br> - Identify and name a variety of common animals that are carnivores, herbivores and omnivores <br> - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) <br> - Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense | Animals Including Humans (and Materials) (On Safari) <br> - Identify and name a variety of common invertebrates. <br> - Identify and name a variety of common animals that are carnivores, herbivores and omnivores. <br> - Describe and compare the structure of a variety of common invertebrates. | Animals (and Everyday Materials) <br> (Holiday) <br> - Identify and name a variety of common animals including fsh, amphibians, reptiles, birds and mammals. <br> - Identify and name a variety of common animals that are carnivores, herbivores and omnivores <br> - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) Distinguish between an object and the material from which it is made. dentify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. <br> - Describe the simple physical properties of a variety of everyday materials. <br> - Describe and compare the structure of a fsh with humans and some other animals. | Plants (and Animals and Materials) <br> (Treasure Island) <br> - Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees <br> - Identify and describe the basic structure of a variety of common flowering plants, including trees <br> - Identify and name a variety of animals including fsh, amphibians, reptiles, birds and mammals. <br> - Describe and compare the structure of a fish with humans and some other animals. <br> - Describe the simple physical properties of a variety of everyday materials. |
|  | Seasonal change \& plants <br> - Observe changes across the 4 seasons <br> - Observe and describe weather associated with the seasons and how day length varies |  | Seasonal change \& plants <br> - Observe changes across the 4 seasons <br> Observe and describe weather associated with the seasons and how day length varies |  | Seasonal change \& plants <br> - Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies |  |


| Year 2 |  |  |  |  |  |
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| Animals including humans <br> (Healthy Me) <br> - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <br> - Notice that animals, including humans, have offspring which grow into adults <br> - Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) | Animals including humans <br> (Healthy Me) <br> - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene <br> - Notice that animals, including humans, have offspring which grow into adults <br> - Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) | Uses of Everyday materials <br> (Material Monsters) <br> - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses <br> - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | Plants (and Materials) (Young Gardeners) <br> - Observe and describe how seeds grow into mature plants <br> - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy <br> - Identify and name a variety of plants <br> - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses | Living things and their habitats <br> (Mini Worlds) <br> - Explore and compare differences between things that are living, dead, and things that have never been alive <br> - Identify that most living thigs 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 <br> - Identify and name a variety of plants and animals in their habitats, including microhabitats <br> - Describe how animals obtain their food from plants and other animals, using the idea of a a simple food chain, and identify the different sources of food <br> - To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. <br> - To explore and compare the differences between things that are living, dead or that have never been alive. <br> - To identify that most living things live in habitats and micro-habitats to which they are suited. <br> - To describe how different habitats provide for the basic needs of different kinds of animals and plants. <br> - To describe how animals obtain their food from plants and other animals. <br> - To use the idea of a simple food chain. <br> - To identify and name different sources of food. | Scientists and Inventors |
| - Observe and describe how seeds <br> - Find out and describe how plants temperature to grow and stay hea | ts <br> bulbs grow into mature plants d water, light and a suitable | Pla <br> - Observe and describe how seeds an <br> - Find out and describe how plants ne temperature to grow and stay healt | d bulbs grow into mature plants eed water, light and a suitable hy | Pla <br> - Observe and describe how seeds and <br> - Find out and describe how plants n temperature to grow and stay heal | grow into mature plants er, light and a suitable |


| LKS 2 Working Scientifically | Year 3 |  |  |  |  |  |
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| - Asking relevant questions and using different types of scientific enquiries to answer them <br> - Setting up simple practical enquiries, comparative and fair tests <br> - Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers <br> - Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions <br> - Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables <br> - Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusion <br> - Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions <br> - Identifying differences, similarities or changes related to simple scientific ideas and processes <br> - Using straightforward scientific evidence to answer questions or to support their findings | Animals including humans (nutrition (Food) <br> - 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 <br> - Identify that humans and some other animals haver skeletons and muscles for support, protection and movement <br> - Find out about healthy and balanced diets. <br> - Gather, record and present data in different ways. | Animals including humans (movement) <br> (\& Bodies) <br> - 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 <br> - Identify that humans and some other animals haver skeletons and muscles for support, protection and movement <br> - Describe the basic parts of the skeletal system. <br> - Observe and compare animals with and without skeletons. <br> - Look at joints, and how bones and muscles help us move. <br> - Make systematic and careful observations | Light <br> (Mirror Mirror) <br> - Recognise that they need light in order to see things and that dark is the absence of light <br> - Notice that light is reflected from surfaces <br> - Recognise that light from the sun can be dangerous and that there are ways to protect their eyes <br> - Recognise that shadows are formed when the light source is blocked by an opaque object - Find patterns in the way that the size of shadows change <br> - Describe the reflections when <br> light is reflected from surfaces. <br> - Record observations and make sense of them. <br> - Describe how shadows are formed. <br> - Design and carry out a fair test. <br> - Research and gather some key facts about how mirrors have been made over the centuries create a list of the key uses. | Rocks <br> (Earth Rocks) <br> - Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties <br> - Describe in simple terms how fossils are formed when things that have lived are trapped within rock <br> - Recognise that soils are made from rocks and organic matter <br> - Explore different kinds of rocks and their properties. <br> - Collect and record data from observations and tests <br> - Explore different types of rock families. <br> - Recognise that soil comes from rock. <br> - Set up and carry out simple, practical activities and fair tests. <br> - Find out how fossils are formed. <br> - Use results to draw conclusions and suggest improvements or new questions. | Plants <br> (throughout the year) <br> (How Does Your Garden Grow?) <br> - Identify and describe functions of different parts of flowering plants; roots, stem/trunk, leaves and flowers <br> - Explore the requirements of plants for life and growth (air, light, water, nutrients from the soil and room to grow) and how they vary from plant to plant <br> - Investigate the way in which water is transported within plants <br> - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal <br> - Set up simple practical enquiries. <br> - Explore exactly what plants need to live and grow, and how these requirements vary from plant to plant. <br> - Ask relevant questions and use different types of scientific enquiry to answer them. <br> - Record the findings using drawings and labelled diagrams. | Forces and magnets (Opposites Attract) <br> - Compare how things move on different surfaces <br> - Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance <br> - Observe how magnets attract or repel each other and attract some materials but not others <br> - 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 <br> - Describe magnets as having 2 poles <br> - Predict whether 2 magnets will attract or repel each other, depending on which poles are facing <br> - To observe the forces that magnets produce. To report and present fndings from enquiries. <br> - To name some materials that magnets can attract and some they cannot. To list at least ten uses of magnets in everyday life. - To explain what a magnetic pole is and what it can do. To predict whether two magnets will attract or repel each other. |
|  | Year 4 |  |  |  |  |  |
|  | Living things and their habitats <br> (throughout the year) <br> (Living Things) <br> - Recognise that living things can <br> be grouped in a variety of ways <br> - Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment <br> - Recognise that environments can change and that this can sometimes pose dangers to living thing | Animals including humans <br> (Teeth and Eating) <br> - Describe the simple functions of the basic parts of the digestive system in humans <br> - Identify the different types of teeth in humans and their simple functions <br> - Construct and interpret a variety of food chains, identifying producers, predators and prey | Electricity <br> (Power It Up!) <br> - Identify common appliances that run on electricity <br> - Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and 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 and closes a circuit and associate this with whether or not a lamp lights in a simple | States of matter (Looking at States) <br> - Compare and group materials together, according to whether they are solids, liquids or gasses <br> - Observe that some materials change state when they are heated or cooled, and measure or research the temperature at Celsius <br> - Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature | Sound <br> (What's That Sound?) <br> - Identify how sounds are made, associating some of them with something vibrating <br> - Recognise that vibrations from sounds travel through a medium to the ear <br> - Find patterns between the pitch of a sound and features of the object that produced it - Find patterns between the volume of a sound and the strength of the vibrations that produced it <br> - Recognise that sounds get fainter as the distance from the sound source increases | What Do Scientists Do? |


|  |  |  | - Recognise some common conductors and insulators, and associate metals with being |  |  |  |
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| UKS 2 Working Scientifically | Year 5 |  |  |  |  |  |
| - Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary; <br> - Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate; <br> - Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs; <br> - Using test results to make predictions to set up further comparative and fair tests; <br> - 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; <br> - Identifying scientific evidence that has been used to support or refute ideas or arguments. | Properties and changes of materials (properties of materials.) <br> (Material World) <br> - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity, electrical and thermal), and response to magnets <br> Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution <br> - Use knowledge of solids, liquids, gases to decide how mixtures might be separated <br> - Give reasons, based on evidence from comparative and fair testis, for the particular uses of everyday materials including metals, wood and plastic <br> - Demonstrate that dissolving, mixing and changes of state are reversible changes <br> - 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 | Properties and changes of materials (changes of materials.) <br> (Material World) <br> - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity, (electrical and thermal), and response to magnets <br> - Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution <br> Use knowledge of solids, liquids, gases to decide how mixtures might be separated <br> - Give reasons, based on evidence from comparative and fair testis, for the particular uses of everyday materials including metals, wood and plastic <br> Demonstrate that dissolving, mixing and changes of state are reversible changes <br> 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 |  | Earth and Space (Out of This World) <br> - Describe the movement of the Earth and other planets relative to the sun in the solar system <br> - Describe the movement of the moon relative to the Earth <br> - Describe the sun, Earth and moon as approximately spherical bodies <br> - Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky | Living things and their habitats (Circle of Life) <br> - Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird <br> - Describe the life process of reproduction in some plants and animals | Animals including humans <br> (Growing Up and Growing Old) <br> - Describe the changes as humans develop to old age |
|  | Year 6 |  |  |  |  |  |
|  | Animals including humans (Staying Alive) <br> - Identify and name the main parts of the human circulatory system, heart, blood vessels and blood <br> - Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function <br> - Describe the ways in which nutrients and water are | Electricity (Electrifying) <br> - Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit <br> - 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 |  | Living things and their habitats (Clarifying Critters) <br> - 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 | Light <br> (Let It Shine) SATs <br> - Recognise that light appears to <br> travel in straight lines <br> - 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 <br> - Explain that we see things because light travels from light | Recap and consolidation of topics |

Science Skills Progression Map robert blair primary school

|  | transported within animals, <br> including humans | -Use recognised symbols when <br> representing a simple circuit in a <br> diagram |
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[^0] - Give reasons for classifying plants
and animals based on specific characteristics
sources to our eyes or from light sources to objects and then to
evolution

- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them


[^0]:    parents

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

