



In Science, we expect our children in Early Years to...



| Little Acorns – Skills Progression | | |
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| | Term 1 | Term 2 |
| Autumn | <p>Purposeful Project : All about me</p> <p>Focus objectives:</p> <ul style="list-style-type: none"> B-3: Notice differences between people. B-3: Make connections between the features of their family and other families. <p>Ongoing objectives:</p> <ul style="list-style-type: none"> B-3: Repeat actions that have an effect. B-3: Explore materials with different properties. B-3: Explore natural materials, indoors and outside <p>Computing opportunities:</p> <ul style="list-style-type: none"> Take a digital photo of myself using a tablet. Record a sentence about me e.g. My name is ... , using a digital device. | <p>Purposeful Project: What's Outside?</p> <p>Focus objectives:</p> <ul style="list-style-type: none"> B-3: Explore natural materials, indoors and outside. B-3: Explore and respond to different natural phenomena in their setting and on trips. <p>Ongoing objectives:</p> <ul style="list-style-type: none"> B-3: Repeat actions that have an effect. B-3: Explore materials with different properties. B-3: Notice differences between people. B-3: Make connections between the features of their family and other families. <p>Computing opportunities:</p> <ul style="list-style-type: none"> Use Sensory worlds app on the interactive table. |
| Spring | <p>Purposeful Project: Places to Go</p> <p>Focus objectives:</p> <ul style="list-style-type: none"> B-3: Explore natural materials, indoors and outside. | <p>Purposeful Project: Eggs</p> <p>Focus Objectives:</p> <ul style="list-style-type: none"> B-3: Explore materials with different properties. |

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| | <p>B-3: Explore and respond to different natural phenomena in their setting and on trips.</p> <p><u>Ongoing objectives:</u></p> <p>B-3: Repeat actions that have an effect.</p> <p>B-3: Explore materials with different properties.</p> <p>B-3: Notice differences between people.</p> <p>B-3: Make connections between the features of their family and other families.</p> | <p>B-3: Explore natural materials, indoors and outside.</p> <p>B-3: Explore and respond to different natural phenomena in their setting and on trips.</p> <p><u>Ongoing objectives:</u></p> <p>B-3: Repeat actions that have an effect.</p> <p>B-3: Make connections between the features of their family and other families.</p> <p>B-3: Notice differences between people</p> |
| Summer | <p>Purposeful Project : Healthy me</p> <p>Focus objectives:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Make connections between the features of their family and other families.</p> <p>B-3: Notice differences between people</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p><u>Ongoing objectives:</u></p> <p>B-3: Repeat actions that have an effect.</p> <p>B-3: Explore materials with different properties.</p> <p>B-3: Explore natural materials, indoors and outside</p> <p>B-3: Explore and respond to different natural phenomena in their setting and on trips.</p> <p><u>Computing opportunities:</u></p> | <p>Purposeful Project : Growing</p> <p>Focus objectives:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Plant seeds and care for growing plants.</p> <p>3-4 : Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>3-4: Explore natural materials, indoors and outside</p> <p>3-4: Explore and respond to different natural phenomena in their setting and on trips.</p> <p><u>Ongoing objectives:</u></p> <p>B-3: Repeat actions that have an effect.</p> <p>B-3: Explore materials with different properties.</p> <p><u>Computing opportunities:</u></p> <p>Use the interactive table to retell a nursery rhyme/story.</p> |

Use the interactive table app to sort and match by colour, shape and size.

How will I see this in place?

- Planned short carpet time sessions with focus Nursery rhymes and repetitive stories linked to Purposeful projects/ cultural events.
- Planned continuous and enhanced provision activities with a focus on these skills.
- Information poster identifying the learning and vocabulary for the week.
- Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden)
- Adult interactions supporting children to practise and develop these skills.
- Planned experiences:

Coombe Abbey (Autumn Term)

Pets at Home, Guinea Pigs, Chicks, Farm visit, Moat House Café (Spring Term)

Soft play trip and Sports' Day (Summer Term)

| | Term 1 | Term 2 |
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| Autumn | <p>Purposeful Project : Our World at Autumn Time</p> <p>Focus objectives:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>B-3: Explore materials with different properties.</p> <p>B-3: Explore natural materials, indoors and outside.</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> <p>3-4: Explore collections of materials with similar and/or different properties.</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Ongoing objectives</p> <p>B-3: Repeat actions that have an effect.</p> <p>3-4: Explore how things work.</p> <p>3-4: Explore and talk about different forces they can feel.</p> <p>Computing opportunities:</p> <p>Take photos of the world around me</p> <p>Use the interactive table - Sensory worlds app</p> | <p>Purposeful Project : Celebrations</p> <p>Focus objectives:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Begin to make sense of their own life-story and family's history</p> <p>3-4: Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.</p> <p>3-4: Continue developing positive attitudes about the differences between people.</p> <p>Ongoing objectives:</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>3-4: Explore collections of materials with similar and/or different properties.</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> <p>3-4: Explore and talk about different forces they can feel.</p> <p>3-4: Explore how things work.</p> <p>Computing opportunities:</p> <p>Use Google Maps/Google Earth to look at different countries</p> <p>Use Cbeebies app to visit children's homes virtually</p> |
| Spring | <p>Purposeful Project : Hot and Cold</p> <p>Focus objectives:</p> | <p>Purposeful Project : On the Farm</p> <p>Focus objectives:</p> |

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| | <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> <p>3-4: Explore collections of materials with similar and/or different properties.</p> <p>3-4: Explore how things work.</p> <p>3-4: Explore and talk about different forces they can feel.</p> <p>3-4: Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.</p> <p>Ongoing objectives:</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Computing opportunities:</p> <p>Check the temperature on a digital screen, recognising icons for sun, rain and clouds.</p> | <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>3-4: Show interest in different occupations.</p> <p>3-4: Understand the key features of the lifecycle of an animal.</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Ongoing objective</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> <p>3-4: Explore how things work.</p> <p>3-4: Explore and talk about different forces they can feel.</p> <p>Computing opportunities:</p> <p>Explore electronic books – select the buttons to enhance the story.</p> |
| Summer | <p>Purposeful Project : Growth and Change – Plants</p> <p>Focus objective:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>3-4: Plant seeds and care for growing plants.</p> <p>3-4: Understand the key features of the life cycle of a plant and an animal.</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> | <p>Purposeful Project : People around me</p> <p>Focus objectives:</p> <p>3-4: Talk about what they see, using a wide vocabulary.</p> <p>3-4: Begin to make sense of their own life-story and family’s history.</p> <p>3-4: Continue developing positive attitudes about the differences between people.</p> <p>3-4: Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.</p> <p>3-4: Show interest in different occupations.</p> <p>3-4: Understand the key features of the life cycle of a plant and an animal.</p> |

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| | <p>Ongoing objectives:</p> <p>3-4: Explore how things work</p> <p>3-4: Explore and talk about different forces they can feel.</p> <p>Computing opportunities:</p> <p>Explore electronic books - select the buttons to enhance the story.</p> <p>Take photos every day to record cress growing.</p> | <p>Ongoing objectives:</p> <p>3-4: Talk about the differences between materials and changes they notice.</p> <p>3-4: Use all their senses in hands-on exploration of natural materials.</p> <p>3-4: Explore how things work.</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things.</p> <p>Computing opportunities:</p> <p>Record precise instructions for making a sandwich (sandwich robot activity)</p> |
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How will I see this in place?

- Planned short carpet time sessions with focus Nursery rhymes and stories linked to Purposeful Projects/ Seasons/ Celebrations.
- Planned continuous and enhanced provision activities with a focus on these skills.
- Continuous provision posters, supporting adults to identify the learning in different learning areas.
- Adult interactions supporting children to practise and develop these skills.
- Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden)
- Daily routines such as getting ready to go outside, snack time.
- Planned experiences:

Theatre trip and Christmas songs performance (Autumn Term)

Chicks and Farm visit (Spring Term)

Soft play trip, Caterpillars and Sports' Day (Summer Term)

Reception – Skills Progression

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| Autumn | <p>Purposeful project : Bugs</p> <p>Focus objectives:</p> <p>3-4: Understand the key features of the life cycle of a plant and an animal.</p> <p>3-4: Begin to understand the need to respect and care for the natural environment and all living things</p> <p>3-4: Talk about what they see, using a wide vocabulary</p> <p>Rec: Explore the natural world around them.</p> <p>Rec: Recognise some environments that are different from the one in which they live.</p> <p>Rec: Describe what they see, hear and feel whilst outside.</p> <p>Ongoing objectives:</p> <p>3-4: Continue to develop positive attitudes about the differences between people.</p> <p>Rec: Understand the effects of changing seasons on the natural world around them.</p> <p>Computing opportunities:</p> <p>Use a search engine to find and explore pictures of bugs.</p> <p>Use the interactive table - Sensory worlds app.</p> <p>Take photograph of minibeasts.</p> | <p>Henley Green Nativity Show</p> <p>Focus objectives:</p> <p>Rec: Recognise that people have different beliefs and celebrate special times in different ways.</p> <p>Rec: Understand that some places are special places to members of their community.</p> <p>Rec: Recognise some similarities and differences between life in this country and life in other countries.</p> <p>Rec: Talk about members of their immediate family and community.</p> <p>Rec: Comment on images of familiar situations in the past.</p> <p>Rec: Compare and contrast characters from stories, including figures from the past.</p> <p>Ongoing objectives:</p> <p>Rec: Describe what they see, hear and feel whilst outside.</p> <p>Rec: Explore the natural world around them.</p> <p>Computing opportunities:</p> <p>Use digital painting to design a picture for the cover of the program (tablets).</p> <p>Video and watch performance.</p> |
| Spring | <p>Purposeful Project : Space</p> <p>Focus objectives:</p> <p>Rec: Comment on images of similar situations in the past.</p> | <p>Purposeful Project : Animal Babies</p> <p>Rec: Understand the effect of the changing seasons on the natural world around them.</p> <p>3-4: Understand the key features of the life cycle of a plant and an animal.</p> |

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| | <p>Rec: Compare and contrast characters from stories, including figures from the past.</p> <p>Rec: Draw information from a simple map.</p> <p>Rec: Recognise some environments that are different to the one in which they live.</p> <p>Ongoing objectives:</p> <p>Rec: Understand the effect of the changing seasons on the natural world around them.</p> <p>Computing opportunities:</p> <p>Explore space on Google Maps/Google Earth.</p> <p>Explore the difference between old and new photos.</p> | <p>Rec: Explore the natural world around them.</p> <p>Rec: Describe what they see, hear and feel whilst outside.</p> <p>Rec: Recognise some environments that are different to the one in which they live.</p> <p>Ongoing objectives:</p> <p>Computing opportunities:</p> <p>Take a photo every day to record and create a time lapse video of the chicks hatching and growing.</p> |
| Summer | <p>Purposeful project : All around the world</p> <p>Focus objectives:</p> <p>Rec: Talk about members of their immediate family and community.</p> <p>Rec: Name and describe people who are familiar to them.</p> <p>Rec: Understand that some places are special to members of their community.</p> <p>Rec: Recognise some similarities and differences between life in this country and life in other countries.</p> <p>Rec: Recognise that people have different beliefs and celebrate special times in different ways.</p> <p>Rec: Recognise that some environments that are different to the one in which they live.</p> <p>Ongoing objectives:</p> <p>Rec: Explore the natural world around them</p> <p>Rec: Describe what they see, hear and feel whilst outside.</p> | <p>Purposeful project : Mini Olympics</p> <p>Focus objectives: (Physical development focus)</p> <p>Rec: Talk about members of their immediate family and community.</p> <p>Rec: Comment on images of familiar situations in the past.</p> <p>Rec: Draw information from a simple map.</p> <p>Ongoing objectives:</p> <p>Rec: Understand the effect of the changing seasons on the natural world around them.</p> <p>Rec: Explore the natural world around them</p> <p>Rec: Describe what they see, hear and feel whilst outside.</p> <p>Computing opportunities:</p> <p>Use a stopwatch to record times.</p> |

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| | <p>Computing opportunities:</p> <p>Videoring skills (video themselves and others) Use Google Maps/Google Earth to look at different countries Scan a QR code linked to e.g. Google Translate</p> | <p>Explore programming the code and go mice to move to a certain point.</p> |
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How will I see this in place?

- Planned short carpet time sessions, including focus stories linked to Purposeful Projects/ Seasons/ Celebrations.
- Planned continuous and enhanced provision activities with a focus on these skills
- Continuous provision posters, supporting adults to identify the learning in different learning areas.
- Adult interactions supporting children to practise and develop these skills.
- Indoor and outdoor provision using a range of spaces and learning areas. (For e.g. mark making area, sensory area, construction area, MUGA, adventure garden).
- Daily routines and transitions such as getting ready to go outside, snack time.
- Planned experiences:



In Science, we expect our children to...

Progression Statements

| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
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| <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> | <p>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.</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> <p>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.</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Observe and describe how seeds and bulbs grow into mature plants.</p> | <p>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.</p> <p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p> <p>Investigate the way in which water is transported within plants.</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>Identify that animal, including humans, need the right types and amount of nutrition, and that</p> | <p>Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Identify the different types of teeth in humans and their simple functions.</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey.</p> | <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>Describe the changes as humans develop to old age.</p> <p>Describe the life process of reproduction in some plants and animals.</p> | <p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans.</p> |

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| <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> | <p>Notice that animals, including humans, have offspring which grow into adults.</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> | <p>they cannot make their own food; they get nutrition from what they eat.</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p> | | | |
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Chemistry
Progression Statements

| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
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| <p>Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> | <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> | <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter.</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> | <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> <p>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which</p> | <p>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.</p> <p>Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including</p> | |

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| | | | <p>this happens in degrees Celsius ($^{\circ}\text{C}$)</p> | <p>through filtering, sieving and evaporating.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>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.</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. "</p> | |
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| <p style="text-align: center;"><u>Physics</u> Progression Statements</p> | | | | | |
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| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| <p>"1.2.1 Observe changes across the four seasons.</p> <p>LINK 3.3.5"</p> | | <p>Compare how things move on different surfaces.</p> | <p>Identify how sounds are made, associating some of them with something vibrating.</p> | <p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between</p> | <p>Recognise that light appears to travel in straight lines.</p> |

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| <p>1.2.2 Observe and describe weather associated with the seasons and how day length varies.</p> | | <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>Observe how magnets attract or repel each other and attract some materials and not others.</p> <p>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.</p> <p>Describe magnets as having two poles.</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Recognise that they need light in order to see things and that dark is the absence of light.</p> <p>Notice that light is reflected from surfaces.</p> | <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p> <p>Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Identify whether a lamp will light in a simple</p> | <p>the Earth and the falling object.</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <p>Describe the movement of the Moon relative to the Earth.</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p> | <p>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.</p> <p>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.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit.</p> <p>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.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p> |
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| | | <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by a solid object.</p> <p>Find patterns in the way that the size of shadows changes.</p> <p>"</p> | <p>series circuit, based on whether or not the lamp is part of a complete loop with a battery.</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> | | |
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Working Scientifically: we expect our children to....

| Working scientifically | | | | | |
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| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 |
| I can use scientific vocabulary | | | | | |
| (Questioning) Ongoing scientific objective: I can ask and answer questions to develop my understanding. | | | | | |
| When planning for the learning you must develop this ongoing objective using the skills below: | | | | | |
| I can ask questions e.g. What is the name of? What can I see? What can I feel? What is it used for? Where would I find it? I can answer questions from everyday experience | I can ask questions (see Y1) What would happen if? Why is it like that? I can suggest how to answer questions I can use different ways to answer questions (research or investigation) | I can ask relevant questions I can use different lines of scientific enquiry to answer questions | I can ask relevant scientific questions I can suggest ways to find out answers to questions | I can develop my own line of questioning I can suggest a wide variety of ways to answer questions | I can develop my own line of questioning I can identify an appropriate approach to find an answer to a scientific question |
| (Planning) Ongoing scientific objective: I can plan a scientific enquiry | | | | | |
| When planning for the learning you must develop this ongoing objective using the skills below: | | | | | |
| I can think of ideas to find an answer I can sequence my ideas (in word, pictures etc.) | I can make suggestions about how to find out about something I can recognise items needed to carry out a test I can choose suitable equipment from a limited range | I can plan a simple enquiry I can plan a fair test I can suggest equipment to use | I can plan a comparative test I can plan a fair test I can choose appropriate equipment independently | I can plan different types of scientific enquiries I can choose scientific apparatus to ensure accurate testing I can plan by controlling variables for a fair test | I can plan different types of scientific enquiries I can choose scientific equipment to ensure accurate testing I can plan for testing reliability (setting up repeat readings) I can plan by controlling the key variables for a fair test |
| (Testing) Ongoing scientific objective: I can test my ideas (using scientific equipment) | | | | | |
| When planning for the learning you must develop this ongoing objective using the skills below: | | | | | |
| I can use equipment provided to make observations I can use my senses to make observations I can observe and classify objects I can make simple comparisons I can measure using non-standard units | I know the features of a fair test I can measure quantities such as length or mass I can use a range of simple equipment I can measure using standard units | I can measure accurately using standard units (length, mass, temperature, force, volume/capacity) I can use a range of equipment to measure I can make careful observations | I can measure accurately using standard units I can make a series of measurements I can make systematic observations I can use a range of equipment (data loggers and thermometers) | I can take accurate and precise measurements with a range of scientific equipment (using a variety of different scales) I can take repeat readings | I can take accurate and precise measurements with a range of scientific equipment I can take repeat readings |

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(Recording and communicating) Ongoing scientific objective: I can record and communicate my findings using statistics.

When planning for the learning you must develop this ongoing objective using the skills below:

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| I can communicate my findings using drawings, simple tables and charts I can describe what I see I can use scientific vocabulary | I can communicate my findings using drawings, simple tables, charts and graphs I can use scientific vocabulary I can report what happened during my test | I can gather data I can record data in different ways (drawings, labelled diagrams, keys, bar charts and tables) | I can gather data I can record data in different ways (drawings, labelled diagrams, keys, bar charts, time graphs and tables) | I can record data and results using scientific diagrams and labels, classification keys, tables, bar and line graph I can use table to record repeat readings | I can record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graph I can design my own way of recording repeat readings |
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(Concluding) Ongoing scientific objective: I can communicate my scientific findings

When planning for the learning you must develop this ongoing objective using the skills below:

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| I can make a simple statement based on what I have found out | I can make simple statements based on what I have found out. I can give reasons for my answer I can identify simple patterns in my results | I can report on findings from enquiries (oral, written, display and presentation of results) I can use these results to draw simple conclusions I can find and describe patterns (using comparative vocabulary) I can suggest simple improvements to my test | I can report on findings from enquiries (oral, written, display and presentation of results) I can use my results to draw conclusions I can make predictions for new values I can suggest improvements and raise further questions I can use scientific evidence to support my findings | I can draw conclusions from my data giving examples I can begin to use scientific facts to support or refute ideas I can use test results to make predictions to set up further comparative and fair tests I can explain results in terms of cause and effect I can evaluate my working methods and suggest improvements | I can draw conclusions from my data explaining the degree of trust in results (repeat readings) I can use scientific facts to support or refute ideas I can use test results to make predictions to set up further comparative and fair tests I can explain results in terms of cause and effect I can evaluate my working methods and suggest improvements |
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