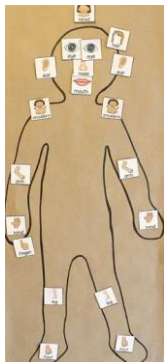


# **Science Long Term Plan 2025-26**

|           | Autumn 1                                                                                                                                                                                                                                                                                                                                                                             | Autumn 2                                                                                                                                                                                                                                                             | Spring 1                                                                                                                                                                             | Spring 2                                                                                                                                                                                                                                                                                              | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                    | Summer 2                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Reception | <p>The Five senses<br/>(Comparative)</p> <p>Materials – How does it feel<br/>(Comparative)</p>  <p>Body Parts</p>  <p>What makes us Healthy/<br/>Unhealthy food<br/>(Identifying, classifying &amp; grouping)</p> | <p>Recycling – Materials<br/>(Identifying, classifying &amp; grouping)</p> <p>Ice- Jugs – Capacity<br/>(Comparative)</p> <p>Encouraging children to sort a range of objects into different groups and explain why.<br/>(Identifying, classifying &amp; grouping)</p> | <p>What makes our teeth healthy?<br/><br/>(Research using secondary sources)</p> <p>How far do germs spread?<br/>Line children up and get them to shake hands.<br/>(Comparative)</p> | <p>Plants – Growing – Jack &amp; The Beanstalk – Measure<br/>Children will draw their observations of the plants over time<br/>(Observing over time)</p> <p>Bridges Experiment<br/>(Comparative)</p> <p>What objects/materials float?<br/>Can you make a raft for a Billy goat?<br/>(Comparative)</p> | <p>Sorting materials linked with recycling.<br/>(Comparative)</p> <p>Handa's Surprise – Push Pull Discovery dog.<br/>(Comparative/ identifying, classifying &amp; grouping)</p> <p>Building igloos with marshmallows. What substance will enable the igloo to stand the strongest and why? Why did the other substances not work?<br/>(Comparative)</p>  | <p>Life cycle of caterpillar – Watch caterpillars grow!<br/>(Pattern seeking with different animal life cycles)</p> <p>Jane Goodall<br/>(Research using secondary sources)</p> <p>Compare animals based on where they live/physical features etc.<br/>(Comparative)</p> <p>Compare a real worm and jelly worm.<br/>(Comparative)</p> <p>Name a wide range of animals from all groups.<br/>(Identifying, classifying &amp; grouping)</p> |

|        | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Autumn 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Spring 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Spring 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Summer 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Year 1 | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><b>PATTERN SEEKING</b><br/>Do trees with bigger leaves lose their leaves first in Autumn?</p> <p><b>PATTERN SEEKING</b><br/>Which tree has the biggest leaves?</p> <p><b>IDENTIFYING, CLASSIFYING AND GROUPING</b><br/>Different shaped leaves</p> | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><u>Seasonal Changes</u><br/>Signs of Autumn</p> <p><b>PATTERN SEEKING</b><br/>Does the wind always blow the same way?</p> <p><b>COMPARATIVE TEST</b><br/>Which material would keep the elf's feet dry?</p> <p><u>Materials</u><br/>Materials hunt</p> | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><b>Animals</b> including humans<br/>Name different animals<br/>Compare animals ~ similarities and differences</p> <p><b>IDENTIFYING, CLASSIFYING AND GROUPING</b><br/>Group animals</p> <p><b>RESEARCH USING SECONDARY SOURCES</b><br/>Mary Anning</p> <p><b>ASSESSMENT TASK</b><br/>Odd One Out</p> | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><b>ASSESSMENT TASK</b><br/>Spring writing in Independent Writing Books</p> <p><b>Animals</b> including humans<br/>The five senses<br/>Name the parts of a body</p> <p><b>IDENTIFYING, CLASSIFYING AND GROUPING</b><br/>Label the parts of a body</p> <p><b>PATTERN SEEKING</b></p> | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><u>Plants</u><br/>Name the parts of a plant<br/>Label the parts of a plant<br/>Plants in the school grounds<br/>What do plants need to grow?</p> <p><b>COMPARATIVE TEST</b><br/>Does the biggest seed grow the biggest plant?</p> | <p><b>Investigation</b><br/><b>PATTERN SEEKING</b><br/>How does the oak tree change over the year?</p> <p><b>MEASUREMENT</b><br/>Recognise and use language relating to months and years.</p> <p>Sequence events in chronological order.</p> <p><b>COMPARATIVE TEST</b><br/>Does it rain more in autumn/spring/summer/winter?</p> <p><b>OBSERVING OVER TIME</b><br/>What bugs can you find in autumn/spring/summer/winter?</p> <p><b>ASSESSMENT TASK</b><br/>Summer writing in Independent Writing Books</p> <p><b>RESEARCH USING SECONDARY SOURCES</b><br/>Neil Armstrong</p> |

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|        | <p><b>ASSESSMENT TASK</b><br/>Autumn writing in Independent Writing Books</p>                                                                                                                                                                                                                                                                                                                                                                       | <p>Group objects according to material</p> <p><b>ASSESSMENT TASK</b><br/>Sort materials and give reasons for how they have been sorted</p> | <p>Video children explaining which is the odd one out and why</p>                                                                                                                                                                                                                                                                 | <p>Can the person with the longest legs jump the furthest?</p> <p><b>MEASUREMENT</b><br/>Measure and begin to record length and heights using non-standard and standards measures</p> <p>Compare and describe lengths and heights</p> <p><b>ASSESSMENT TASK</b><br/>Can chd match the body part to the correct sense? Booklet</p>                    | <p><b>MEASUREMENT</b><br/>Measure and begin to record length and heights using non-standard and standards measures</p> <p>Compare and describe lengths and heights</p> <p><b>ASSESSMENT TASK</b><br/>Explorify<br/>Shooting Sprouts<br/>Chd to write what is happening</p> <p><b>ASSESSMENT TASK 2</b><br/>Use different materials to make a plant. Label the parts of a plant. Explain the job of the different plant parts</p> |                                                                                                                                                                                                                                                                                             |
|        | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                                            | Autumn 2                                                                                                                                   | Spring 1                                                                                                                                                                                                                                                                                                                          | Spring 2                                                                                                                                                                                                                                                                                                                                             | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                         | Summer 2                                                                                                                                                                                                                                                                                    |
| Year 2 | <p><b>Materials</b><br/><b>Pattern seeking</b> 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><b>Grouping and sorting objects and materials- Identifying and classifying.</b></p> <p><b>Which material makes the best cup? Comparative test</b></p> <p><b>What material makes the best glue? Comparative test</b></p> |                                                                                                                                            | <p><b>Humans/Animals</b><br/>Notice that animals, including humans, have offspring which grow into adults. <b>Pattern seeking</b></p> <p><b>Research</b> 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,</p> | <p><b>Living things and their habitats.</b><br/>Explore and compare the differences between things that are living, dead, and things that have never been alive.<br/><b>Identifying and classifying.</b></p> <p><b>Research</b> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and</p> | <p><b>Living things and their habitats.</b><br/>Identify and name a variety of plants and animals in their habitats, including microhabitats.<br/><b>Pattern seeking/ Identifying and classifying.</b></p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the</p>                                                                                 | <p><b>Plants</b><br/>Observe and describe how bulbs grow into mature plants.<br/><b>Do bigger bulbs grow into bigger plants? Pattern seeking/ Observation over time.</b></p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> |

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|        | <p><b>What happens to different materials when we bury them?</b> Observation over time.</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><b>Which materials are rigid?</b> Comparative test</p> |                                                                                                                                                                       | <p>eating the right amounts of different types of food, and hygiene.</p> <p>Group foods into different groups. Identifying and classifying.</p> <p><b>Which exercise makes you feel the most tired?</b> Comparative test.</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.<br/>C/C Geography - Link with hot and cold places in geography.</p> <p><b>What does blubber do?</b> Comparative test.</p> | <p>identify and name different sources of food.</p> <p><b>Research</b>- Who is David Attenborough? His life, knowledge and his passion for the environment.</p> <p><b>Research</b> – Which animals live in hot and cold places?</p> <p><b>Which colour caterpillar is the most difficult to find?</b> Comparative test<br/>C/C Maths - Statistics</p> <p><b>Research</b> - What did Charles Darwin discover?<br/>C/C History</p> | <p>basic needs of different kinds of animals and plants, and how they depend on each other. Identifying and classifying.</p> <p>Insects/not insects? Identifying and classifying.</p> <p><b>Where do woodlice like to live?</b> Pattern seeking<br/>C/C Maths – Statistics</p> | <p><b>What conditions do plants need to grow?</b> Observation over time.</p> <p><b>Do cress seeds grow quicker inside or outside?</b> Observation over time/Comparative test<br/>C/C Maths - Measuring</p> |
|        | Autumn 1                                                                                                                                                                                                                                                                                      | Autumn 2                                                                                                                                                              | Spring 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Spring 2                                                                                                                                                                                                                                                                                                                                                                                                                         | Summer 1                                                                                                                                                                                                                                                                       | Summer 2                                                                                                                                                                                                   |
| Year 3 | <p><u><b>Light and Shadows</b></u></p> <p>- recognise that light is needed to see and that dark is the absence of light<br/>- explore whether materials absorb, reflect or allow light to travel through</p>                                                                                  | <p><u><b>Magnets and Forces</b></u></p> <p>Describe magnets as having two poles</p> <p>Understand that magnets can attract or repel and start to make predictions</p> | <p><u><b>Animals Inc Humans</b></u></p> <p>Identify that animals, including humans, need the right types and amount of nutrition and that they cannot make their own</p>                                                                                                                                                                                                                                                                                                                                                                                                           | <p><u><b>Rocks and Soils</b></u></p> <p>Compare and group rocks based on their appearance and physical properties</p> <p>Understand how different types of rocks are formed.</p>                                                                                                                                                                                                                                                 | <p><u><b>Plants</b></u></p> <p>Identify the different parts of the flowering plant and understand their function</p> <p>Explore what plants need for life and growth</p> <p>Understand how water is transported in plants</p>                                                  |                                                                                                                                                                                                            |

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|  | <p>Recognise that light from the sun can be dangerous – best ways to protect ourselves from the sun</p> <p>- Understand how shadows are formed</p> <p>Find patterns in the way that shadows change</p> <p><b>Investigations</b><br/>Test a range of materials to see if they are reflective, translucent or transparent <b>(Identifying, classifying and grouping)</b></p> <p>Test different safety features (suncream, hat, sunglasses, shade etc) to see which protect best from suns UV rays <b>(Comparative test)</b></p> <p>Does the distance from the light affect the size of a shadow? <b>(Pattern seeking)</b></p> <p>How does my shadow change over the day? <b>(Observation over time)</b></p> <p>Why is the sun dangerous? <b>(Research)</b></p> | <p>about whether this will happen.</p> <p>Group materials based on whether they are attracted to a magnet</p> <p>- direct and indirect forces</p> <p>- compare how things move on different surfaces</p> <p><b>Investigations</b><br/>Group and test materials based on whether or not they are magnetic <b>((Identifying, classifying and grouping))</b></p> <p>Does the size of a magnet affect how many paperclips the magnet can hold? <b>(Pattern seeking)</b></p> <p>Which material makes the best ramp? <b>(Comparative test)</b></p> <p>How do magnets work? <b>(Research)</b></p> <p><b>Assessment:</b><br/>Design a magnetic race tracks</p> | <p>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> <p>- Group animals based on their diets</p> <p>- Research different food groups</p> <p><b>Investigations</b><br/>Group animals based on their diets <b>(Identifying, classifying and grouping)</b></p> <p>Research different food groups <b>(Research)</b></p> <p>Do taller children have stronger muscles <b>(Pattern seeking)</b></p> <p>- Twig skeleton <b>(outdoor learning)</b></p> | <p>Understand and describe how fossils are formed</p> <p>Recognise that soils are made from rocks and other matter</p> <p><b>Investigations</b><br/>Compare and group rocks based on their appearance and physical properties <b>(Identifying and Classifying)</b></p> <p>Find out about Mary Anning <b>(Research)</b></p> <p>Which soil holds the most water? <b>(Comparative / Fair test)</b></p> <p>Which soil is the driest? <b>(Observation over time)</b> <b>(Comparative / Fair test)</b></p> <p><b>Assessment:</b><br/>Complete a poster (given a rock cycle lay out) about the different types of rock and how fossils are made</p> | <p>Understand how seeds are dispersed.</p> <p><b>Investigations</b><br/>Identify the different parts of the flowering plant <b>(Identifying and Classifying)</b></p> <p>Does the amount of water affect how tall a plant grows? <b>(Observation over time)</b> <b>(Pattern seeking)</b></p> <p>What does a plant need to grow? <b>(comparative testing / pattern seeking)</b></p> <p>How are seeds transported? <b>(Research)</b></p> <p>Investigate how water is transported in plants <b>(Observation over time)</b></p> <p><b>Assessment:</b><br/>Design a plant that will grow well in a given environment. Children to explain each part of their plant – either written or verbally and videoed (child dependent)</p> |
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|        | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                   | Autumn 2                                                                                                                                                                                                                                                                                                                                               | Spring 1                                                                                                                                                                                                                                                                                                                                          | Spring 2                                                                                                                                                                                                                                                                                                                                        | Summer 1                                                                                                                                                                                                                                                                                                                                                                            | Summer 2                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| Year 4 | <p><b><u>Living Things and their habitats</u></b></p> <p>Classification branching databases</p> <p>Classifying leaves from the woodland</p> <p>Observing over time – How does the variety of invertebrates on the school field change over the year?</p> <p><b><u>Explorify-</u></b></p> <p>-show a vid chn scribing</p> <p>-What if</p> <p>-What just happened</p> <p>-Odd one out</p> <p><b><u>Venn diagram?</u></b></p> | <p><b><u>Electricity</u></b></p> <p>Circuits</p> <p>Comparative tests – size of battery, number of components</p> <p>Pattern seeking – Which room has the most electrical sockets in a house</p> <p>-Models + explain</p> <p>-Diamond nine</p> <p>-Ranking – explaining why</p> <p>-Explain why something happens</p> <p>Draw a circuit + label it</p> | <p><b><u>Animals Including Humans</u></b></p> <p>Teeth/Digestion</p> <p>Fair testing egg shell investigation (Investigation over time)</p> <p>-concept cartoons</p> <p>-presentations</p> <p>- own investigations</p> <p>-making predictions</p> <p>- analyse data that is already out there- what would the results show what you found out.</p> | <p><b><u>Animals Including Humans</u></b></p> <p>Food Chains</p> <p>Comparative test/ research</p> <p>Are all animals which are at the top of the food chain predators?</p> <p>Research/ comparative - Do animals with the longest legs run the fastest?</p> <p>Classifying sorting and grouping –</p> <p>venn diagram, branching data base</p> | <p><b><u>States of Matter</u></b></p> <p>Solids liquids and gasses</p> <p>Fair testing / pattern seeking- How long it takes to melt different size of ice lollies?</p> <p>Observing over time/ – How does the level of water in a glass change when left on a window sill?</p> <p>Solid liquid gas</p> <p>Model using counters + explain</p> <p>make a model of the water cycle</p> | <p><b><u>Sound</u></b></p> <p>Sound waves</p> <p>Pitch/volume</p> <p>Pattern seeking – link between how loud it is in school to time of the day? If so, is it the same in every area of school?</p> <p>Comparing sounds over distance.</p> <p>Do younger children hear better? (Operation Ouch)</p> <p>- Posters</p> <p>- Vocab mats where the chn explain</p> <p>- what if ....was missing.</p> <p>What if something was missing?</p> |
| Year 5 | <p><b><u>Living Things and their habitats</u></b></p> <p>Describe the life process of reproduction in some plants and animals.</p> <p>Dissect and label the parts of a flower and describe the life process of</p>                                                                                                                                                                                                         | <p><b><u>Living Things and their habitats</u></b></p> <p>Research the work of famous scientists (historical and modern day) and use this to find out how scientific ideas have changed over time.</p>                                                                                                                                                  | <p><b><u>Properties and changes of Materials</u></b></p> <p>-Can you group these materials based on their properties?</p> <p>Distinguish between melting and dissolving.</p>                                                                                                                                                                      | <p><b><u>Space</u></b></p> <p>Reporting and presenting findings from enquiries</p> <p>Describe what is in the Solar System</p> <p>-How have our ideas about the solar system changed over time?</p>                                                                                                                                             | <p><b><u>Forces</u></b></p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments</p> <p>Learn about the Scientist Galileo Galilei and investigate the force of</p>                                                                                                                                                                         | <p><b><u>Animals including humans</u></b></p> <p>Compare more complex processes, systems, functions (e.g. life cycles of different living things, organ systems of different animals).</p>                                                                                                                                                                                                                                             |

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|  | <p>reproduction in some plants.</p> <p>Learn about asexual reproduction by cloning a basil plant.<br/>-How does a basil plant change over time?</p> <p>Observe and compare the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest)</p> <p>Compare plants that grow in our local areas – woodlands and gardens to those that have adapted to growing in the rainforest.<br/>-Research enquiry and compare to plants in the Amazon</p> | <p>Find things out using a wide range of secondary sources of information.</p> <p>The work of Jane Goodall.<br/>-Research Goodall's contribution to Science and how she has impacted research today</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>Observe changes in an animal over a period of time</p> <p>Learn about the lifecycle and reproduction of amphibians and insects and draw some using zoological and ecological illustrations.<br/>-Compare the collection of animals based on similarities and differences in their lifecycle</p> <p>Learn about the lifecycle and reproduction of mammals and birds, describing the differences.<br/><b><u>Properties and changes of Materials</u></b></p> | <p>-What happens to the skittles when left over a period of time?</p> <p>Investigate how temperature affects how solutes dissolve. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>-Does the temperature of the water affect the rate of which a solid dissolves?</p> <p>Recognise that dissolving is a reversible change.<br/>-How does a container of salt change over time?</p> <p>Investigate reversible and irreversible changes.<br/>-Research examples of reversible and irreversible changes and present findings</p> | <p>Planning different types of scientific enquiries to answer questions</p> <p>Reporting and presenting findings from enquiries including a conclusion</p> <p>-Is there a pattern between the size of a planet and the time it takes to travel around the sun?</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Use the idea of the Earth rotation to explain day and night.</p> <p>Describe the movement of the moon relative to the Earth<br/>-Can you observe and identify all of the phases in the cycle of a moon?</p> <p>Describe the movement of the Earth relative to the sun in the solar system.</p> | <p>gravity acting between Earth and falling objects<br/>-Research the work and findings of Galileo and how this impacted on peoples' understanding of gravity</p> <p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Identify the effects of air resistance by constructing a parachute<br/>-Does the size of the parachute affect the time it takes for it to fall?<br/>-Does the material of the parachute affect the time it takes for it to fall?<br/>-Does the string size of the parachute affect the time it takes for it to fall?</p> <p>Reporting and presenting findings from enquiries</p> <p>Identify the effects of water resistance and friction using modelling clay<br/>-Do objects fall through the water in the same way?</p> | <p>Human Timeline of growth and development<br/>What are the stages a human goes through in their life cycle?<br/>-Can you identify all the stages in the human lifecycle?</p> <p>Explore more abstract systems/functions/changes and record their understanding of these</p> <p>Puberty</p> <p>Gestation Period<br/>-Is there a relationship between a mammal's size and its gestation period?</p> <p>Changes in Old Age &amp; Life Expectancy<br/>-Research how humans change over each part of their lifecycle</p> |
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|  |  | <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>Investigate how temperature affects how solutes dissolve. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> | <p><b>-Do all solutes have the same saturation points?</b></p> <p>Explain which variables need to be controlled and why.</p> <p>Recognise when it is appropriate to carry out a fair test and plan how to set it up.</p> <p>Conduct a comparative test and explain my findings.</p> <p><b>Insulating investigation:</b></p> <p>Temperature and Thermal Insulation</p> <p>Heat always moves from hot to cold.</p> <p>Some materials (insulators) are better at slowing down the movement of heat than others.</p> <p>Objects/liquids will warm up or cool down until they reach the temperature of their surroundings.</p> <p><b>-Which material provides the best insulation?</b></p> <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification</p> |  | <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p><b>-Record data onto a line graph</b></p> <p>Investigate further into friction</p> <p><b>-Which surface provides the best friction?</b></p> <p>Investigate that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p> |  |
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|        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     | keys, tables, scatter graphs, bar and line graphs<br>-Use a bar chart to record the results from the temperature investigation and children to calculate the mean to plot this result<br>-Use a line graph to record the results of the insulation investigation<br>-Use a bar chart to plot the saturation points of different solutes                                           |                                                                                                                                                                                 |          |                                                                                                                                                                                                                                                            |
|        | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                   | Autumn 2                                                                                                                                                                                                                            | Spring 1                                                                                                                                                                                                                                                                                                                                                                          | Spring 2                                                                                                                                                                        | Summer 1 | Summer 2                                                                                                                                                                                                                                                   |
| Year 6 | <u><b>Light</b></u><br><br>Recognise that light appears to travel in straight lines (fair test)<br><br>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. (Fair test)<br><br>Making periscopes<br>Angles of incident and reflection<br>Newton's colour wheel and visible spectrum using a prism.<br><br>Measuring shadows – observation over time | <u><b>Electricity</b></u><br><br>What happens if you add more batteries to a circuit (Fair test)<br><br>What happens if you add more output components to a circuit? (Fair test)<br>Static electricity<br><br>Assessment – Hexagons | <u><b>Evolution and Inheritance</b></u><br><br>Peppered Moths (research using secondary sources)<br><br>How have horses changed over time (research using secondary sources)<br><br>Animals over winter (Research using secondary sources)<br><br>Darwin's Finches (identifying, grouping and classifying)<br><br>Jelly Baby inheritance<br><br>DNA extraction using strawberries | <u><b>Animals including Humans</b></u><br><br>How does exercise affect the heart rate? (Pattern seeking)<br><br>Assessment – Create a model of the circulatory system and label |          | <u><b>Living things and their habitats</b></u><br><br>Buttercups (identifying, grouping and classifying)<br><br>Mould (observation over time)<br><br>Assessment – classifying and grouping a different species based on their own criteria and explain why |

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|  | Assessment - Presentation<br>on how light travels in<br>straight lines and how it<br>reflects of different<br>surfaces |  | Assessment – Poster<br>showing inheritance from<br>parents and evolution of<br>time |  |  |  |
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