# Skills Progression - Science (Year 1-6)

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks States of matter)</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/ Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To be taught across all units through the year.</td>
<td>Pupils will be taught to:</td>
<td>Paragon link: Unit 1 Theme: Who am I? (self - human body)</td>
<td>Paragon link: Unit 3 Theme: What do clothes teach us about people?</td>
<td>Paragon link: Theme:</td>
<td></td>
<td></td>
<td>Paragon link: Unit 1 Theme: Who am I? (likes, dislikes, place, identity)</td>
</tr>
<tr>
<td></td>
<td>Pupils in years 1 and 2 should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions.</td>
<td>Identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen.</td>
<td>Describe the basic structure of a variety of common plants including roots, stem, leaves and flowers.</td>
<td>Pupils will be taught to: Identify and name lots of common animals including fish, amphibians, reptiles, birds and mammals.</td>
<td>Identify and name lots of everyday materials, including wood, plastic, glass, metal, water, and rock.</td>
<td>Understand the difference between an object and the material from which it is made.</td>
<td>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.</td>
<td>Seasonal changes</td>
</tr>
<tr>
<td></td>
<td>They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group.</td>
<td>Describe the simple physical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To be taught across all units through the year.</td>
<td>Use observations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skills Progression - Science (Year 1-6)</strong></td>
<td>them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships.</td>
<td>Gather and record data to help in answering questions.</td>
<td>Gather and record data to help in suggesting answers to questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>They should ask people questions and use simple secondary sources to find answers.</td>
<td>carnivores, herbivores and omnivores.</td>
<td>properties of a variety of everyday materials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their ideas and methods.</td>
<td>describe and compare lots of common animals (fish, amphibians, reptiles, birds and mammals, including pets) by how they look and how they move.</td>
<td>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Describe and compare lots of common animals (fish, amphibians, reptiles, birds and mammals, including pets) by how they look and how they move.</td>
<td>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</td>
<td>days changes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
findings in a range of ways and begin to use simple scientific language.

These opportunities for working scientifically should be provided across years 1 and 2 so that the expectations in the programme of study can be met by the end of year 2. Pupils are not expected to cover each aspect for every area of study.
## Skills Progression - Science (Year 1-6)

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks States of matter)</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/ Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>To be taught across all units through the year.</td>
<td>Pupils will be taught to:</td>
<td>Paragon link: Unit 1 Theme: What do people need?</td>
<td>Paragon link: Unit 2 Theme: How do people help their communities?</td>
<td>Paragon link: Unit 4 Theme: How do people create communities?</td>
<td></td>
<td></td>
<td>Paragon link: Unit 6 Theme: How do people communicate?</td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td>Observe and describe how seeds and bulbs grow into mature plants.</td>
<td>Pupils will be taught to:</td>
<td>Understand that animals, including humans, have offspring (babies) which grow into adults.</td>
<td>Identify and compare how different materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are used because of their properties.</td>
<td></td>
<td></td>
<td>Sound</td>
</tr>
<tr>
<td></td>
<td>Ask simple questions and understand that they can be answered in different ways.</td>
<td>Find out and describe how plants need water, light and the right temperature to grow and stay healthy.</td>
<td>Pupils will be taught to:</td>
<td>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</td>
<td>Explore and compare the differences between things that are living, dead, and things that have never been alive.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observe closely, using simple equipment.</td>
<td>Perform simple tests.</td>
<td>Identify that most living things live in habitats to which they are suited and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify and classify living and non-living things.</td>
<td>Use observations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>These should use simple features to compare objects, materials and living things and, with help, decide how to sort and group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pupils in years 1 and 2 should explore the world around them and raise their own questions. They should experience different types of scientific enquiries, including practical activities, and begin to recognise ways in which they might answer scientific questions.

Pupils will be taught to:

- Ask simple questions and understand that they can be answered in different ways.
- Observe closely, using simple equipment.
- Perform simple tests.
- Identify and classify living and non-living things.
- Use observations.
**Skills Progression - Science (Year 1-6)**

<table>
<thead>
<tr>
<th>them, observe changes over time, and, with guidance, they should begin to notice patterns and relationships.</th>
<th>Gather and record data to help in answering questions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>They should ask people questions and use simple secondary sources to find answers.</td>
<td>They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their</td>
</tr>
<tr>
<td>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene (being clean).</td>
<td>changed by squashing, bending, twisting and stretching. Identify and compare how different materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are used because of their properties.</td>
</tr>
<tr>
<td>describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. Identify and name different plants and animals in their habitats, including micro-habitats. Describe how animals get their food from plants and other animals, using the idea of a simple food chain, and identify and name different</td>
<td></td>
</tr>
</tbody>
</table>

**Gather and record data to help in answering questions.**

- **Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene (being clean).**
- **changed by squashing, bending, twisting and stretching.** Identify and compare how different materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are used because of their properties.
- **describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. Identify and name different plants and animals in their habitats, including micro-habitats.**
- **Describe how animals get their food from plants and other animals, using the idea of a simple food chain, and identify and name different**
**Skills Progression - Science (Year 1-6)**

<table>
<thead>
<tr>
<th>Findings in a range of ways and begin to use simple scientific language.</th>
<th></th>
<th></th>
<th>Sources of food.</th>
</tr>
</thead>
<tbody>
<tr>
<td>These opportunities for working scientifically should be provided across years 1 and 2 so that the expectations in the programme of study can be met by the end of year 2. Pupils are not expected to cover each aspect for every area of study.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**KING OSEA MILITARY ACADEMY**

**AURORA ACADEMIES TRUST**
## Skills Progression - Science (Year 1-6)

### Year Group

<table>
<thead>
<tr>
<th>Year</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Pupils in years 3 and 4 should be given a range of scientific experiences to enable them to raise their own questions about the world around them. They should start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; recognise when a simple fair test is necessary and help to decide how to set it up; talk about criteria for...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To be taught across all units through the year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ask relevant questions and using different types of scientific enquiries to answer them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set up simple practical enquiries, comparative and fair tests.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make organised and careful observations and, where appropriate, take accurate measurements using standard units, using a range of...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paragon link: Unit 1 Theme: Why did people start to farm?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paragon link: Unit 3 Theme: How do people live in a desert environment?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paragon link: Unit 6 Theme: How do we live in Britain?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compare how things move on different surfaces.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understand that some forces need contact between two objects, but magnetic forces can act at a distance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observe how magnets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paragon link: Unit 5 Theme: How do people live in an icy land?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognise that they need light in order to see things and that dark is the absence of light.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understand that light is reflected from surfaces.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognise that light from the sun can be dangerous and...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Skills Progression - Science (Year 1-6)

| Grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard equipment, including thermometers and data loggers. | Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. | Recognise that soils are made from rocks and organic matter. | Attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by a solid object. Find patterns in the way that the size of shadows change. |
Units, and help to make decisions about how to record and analyse this data.

With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected, and finding ways of improving what they have already done. They should also recognise when and

| simple conclusions, make predictions for new values, suggest improvements and ask further questions. |
| Identify differences, similarities or changes related to simple scientific ideas and processes. |
| Use simple scientific evidence to answer questions or to support their findings. |
| depending on which poles are facing. |
Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.

These opportunities for working scientifically should be provided across years 3 and 4 so that the expectations in the programme of study can be met by the end of year 4.
Skills Progression - Science (Year 1-6)

Pupils are not expected to cover each aspect for every area of study.

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks States of matter)</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/ Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>To be taught across all units through the year.</td>
<td>Pupils will be taught to: Investigate the way in which water is transported within plants.</td>
<td>Paragon link: Unit 4 Theme: How do explorers connect cultures?</td>
<td>Pupils will be taught to: Describe the simple functions of the basic parts of the digestive system in humans.</td>
<td>Pupils will be taught to: Paragon link: Unit 1 Theme: How does a culture flow from a river?</td>
<td>Pupils will be taught to: Recognise that living things can be grouped in a variety of ways.</td>
<td>Pupils will be taught to: Identify common appliances that run on electricity.</td>
<td>Sound</td>
</tr>
<tr>
<td></td>
<td>Pupils will be taught to: Ask relevant questions and using different types of scientific enquiries to answer them.</td>
<td>Investigate the way in which water is transported within plants.</td>
<td>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed</td>
<td>Pupils will be taught to: Compare and group materials together, according to whether they are solids, liquids or gases.</td>
<td>Pupils will be taught to: Observe that some materials change state when</td>
<td>Pupils will be taught to: Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</td>
<td>Pupils will be taught to: Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</td>
<td>Identify how sounds are made, associating some of them with something vibrating.</td>
</tr>
<tr>
<td></td>
<td>Set up simple practical enquiries, comparative and fair tests.</td>
<td>Investigate the way in which water is transported within plants.</td>
<td>Describe the simple functions of the basic parts of the digestive system in humans.</td>
<td>Observe that some materials change state when</td>
<td>Recognise that environments</td>
<td>Sound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make organised and careful</td>
<td>Investigate the way in which water is transported within plants.</td>
<td>Identify the</td>
<td>Observe that some materials change state when</td>
<td>Recognise that environments</td>
<td>Identify how sounds are made, associating some of them with something vibrating.</td>
<td>Identify how sounds are made, associating some of them with something vibrating.</td>
<td>Recognise that vibrations from sounds travel through a</td>
</tr>
</tbody>
</table>
Skills Progression - Science (Year 1-6)

| recognize when a simple fair test is necessary and help to decide how to set it up; talk about criteria for grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. They should learn how to use new equipment, such as data loggers, appropriately. They observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Report on findings from enquiries, including oral and written explanations. dispersal. different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey. they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C). Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. can change and that this can sometimes pose dangers to living things. 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 series circuit. Recognise some common conductors and insulators, and associate metals with medium to the ear. 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. Recognise that sounds get fainter as the distance from the sound source increases.
# Skills Progression - Science (Year 1-6)

| Should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. | Displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and ask further questions. Identify differences, similarities or changes related to simple scientific ideas and processes. Use simple scientific evidence to answer questions or to support their findings. | | | Being good conductors. |
collected, and finding ways of improving what they have already done. They should also recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.

Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.

These opportunities for working scientifically should be provided across
skills progression - science (year 1-6)

years 3 and 4 so that the expectations in the programme of study can be met by the end of year 4. Pupils are not expected to cover each aspect for every area of study.

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks States of matter)</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/ Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>To be taught across all units through the year. Pupils will be taught to: Plan different types of scientific enquiries to answer questions, including recognising and</td>
<td>Pupils will be taught to: Describe the changes as humans develop to old age.</td>
<td>Pupils will be taught to: Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency.</td>
<td>Pupils will be taught to: Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</td>
<td>Pupils will be taught to: Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the</td>
<td>Paragon link: Unit 3 Theme: What can a civilisation learn from its great thinkers?</td>
<td>Earth and Space</td>
<td></td>
</tr>
</tbody>
</table>
Skills Progression - Science (Year 1-6)

| Type of scientific enquiry to use to answer scientific questions; recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. They should use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. They should make their own decisions about what observations to make, what controlling variables where necessary. | Conducting variables using a range of scientific equipment, with increasing accuracy, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use test results to make predictions to set up further comparative and fair tests. | Conductivity (electrical and thermal), and response to magnets. Understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for life process of reproduction in some plants and animals. | Falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. | Pupils will be taught to: Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth’s rotation to... |
| measurements to use and how long to make them for, and whether to repeat them; choose the most appropriate equipment to make measurements and explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed; recognise which secondary sources Report and present findings from enquiries in oral and written forms such as displays and other presentations. This includes drawing conclusions and explaining how things happen and how far I trust the results found. Identify scientific evidence that has been used to support or refute ideas or arguments. | the particular uses of everyday materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. | explain day and night and the apparent movement of the sun across the sky. |
Skills Progression - Science (Year 1-6)

| will be most useful to research their ideas and begin to separate opinion from fact. |
| They should use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time. |
| These opportunities for working scientifically should be provided across years 5 and 6 so that the expectations in the programme of study can be met by the end of year 6. |
Skills Progression – Science (Year 1-6)

Pupils are not expected to cover each aspect for every area of study.

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Working Scientifically</th>
<th>Plants</th>
<th>Animals including humans</th>
<th>Materials (Properties/Rocks States of matter)</th>
<th>Living things and their habitats</th>
<th>Forces</th>
<th>Light/Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pupils in years 5 and 6 should use their science experiences to:

- explore ideas and raise different kinds of questions;
- select and plan the most appropriate type of scientific enquiry to use to answer scientific questions;
- recognise when and how to set up comparative and fair tests and

To be taught across all units through the year.

Pupils will be taught to:

- Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Take measurements, using a range of scientific equipment, with

Pupils will be taught to:

- Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- Recognise the impact of diet, exercise, drugs and lifestyle on the way their

Pupils will be taught to:

- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
- Give reasons

Pupils will be taught to:

- Recognise that light appears to travel in straight lines.
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.

Paragon link: Unit 1
Theme: How do we unlock the mysteries of a civilisation?
Evolution and Inheritance

Pupils will be taught to:

- Recognise that living things have changed over time and that fossils
## Skills Progression - Science (Year 1-6)

| Explain which variables need to be controlled and why. They should use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. | Increasing accuracy, taking repeat readings when appropriate. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Use test results to make predictions to set up further comparative and fair tests. Report and present findings from enquiries in oral and written forms such as displays and other presentations. This provides information about living things that inhabited the Earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that | Bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. See things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. **Electricity** Associate the brightness of a lamp or the volume of a buzzer with | For classifying plants and animals based on specific characteristics. |
### Skills Progression - Science (Year 1-6)

<table>
<thead>
<tr>
<th>Explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed; recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. They should use relevant scientific includes drawing conclusions and explaining how things happen and how far I trust the results found. Identify scientific evidence that has been used to support or refute ideas or arguments.</th>
<th>Includes drawing conclusions and explaining how things happen and how far I trust the results found. Identify scientific evidence that has been used to support or refute ideas or arguments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram.</td>
<td>Adaptation may lead to evolution.</td>
</tr>
</tbody>
</table>
Skills Progression - Science (Year 1-6)

| language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time. |
| These opportunities for working scientifically should be provided across years 5 and 6 so that the expectations in the programme of study can be met by the end of year 6. Pupils are not expected to cover each aspect for every area of study. |
Skills Progression - Science (Year 1-6)