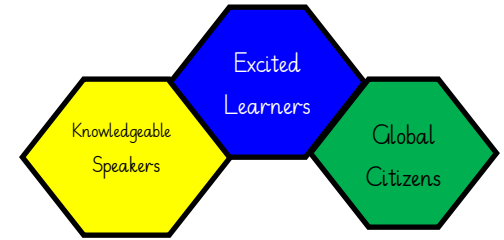
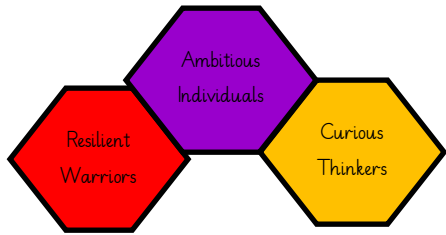


# Curriculum Skills Progression and Assessment Handbook



Art and Design  
"Art is a place for children to learn to trust their ideas themselves and to explore what is possible."  
*Maryann F Kohl – educator and publisher*

Geography  
"The study of geography is about more than just memorising places on a map. It's about understanding the complexity of our world."  
*President Barack Obama*

Science  
"The important thing is to never stop questioning."  
*Albert Einstein*

Computing  
"The computer is not a device anymore. It is an extension of your mind and your gateway to other people."  
*Mark Shuttleworth- Entrepreneur*

History  
"The more you know about the past, the better prepared you are for the future"  
*Theodore Roosevelt*

At Burnt Tree Primary School 'every child matters'; therefore, we strive to ensure our pupils are happy and healthy both physically and mentally. We endeavour to exploit every opportunity within the curriculum to develop their physical and mental strength to be successful. All children will develop the emotional intelligence to be caring and kind citizens who are aware of their self-worth and identify their place in society. They will become life-long learners who are independent, responsible and respectful.

Languages  
'The limits of my language are the limits of my world'.  
*Lutwig Wittgenstein. Australian-British philosopher of language.*

Music  
"There is music in every child. The teacher's job is to find it and nurture it."  
*Francis Clark- pianist*

Design and Technology  
"It's not just about ideas, it's about making ideas happen"  
*Scott Belsky- entrepreneur*

PE  
"If you can't fly, then run, if you can't run, then walk, if you can't walk, then crawl, but whatever you do, you have to keep moving forward."  
*Martin Luther King*

RE  
"The beauty of the world lies in the diversity of its people."  
*Unknown*

### Science Nursery Topics

- Animals, excluding humans
- Humans
- Living things and their habitats
- Plants
- Seasonal changes
- Materials, including changing materials
- Electricity
- Light
- Forces
- Sound

### Science Reception Topics

- Animals, excluding humans
- Humans
- Living things and their habitats
- Plants
- Seasonal changes
- Materials, including changing materials
- Light
- Forces
- Sound
- Earth and space

### Science Y1

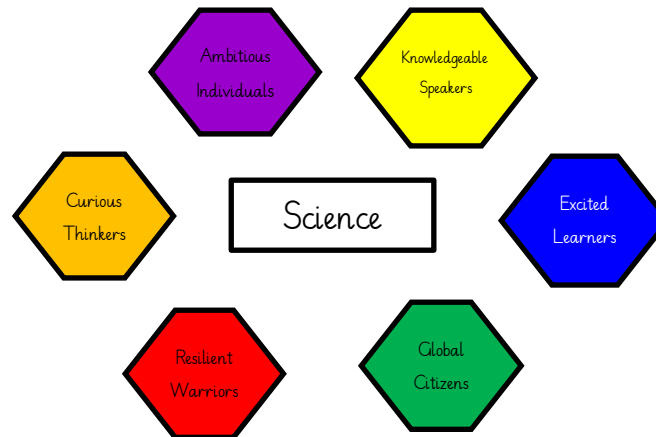
#### Topics

- Plants
- Animals including human
- Everyday materials
- Seasonal changes

### Science Y6

#### Topics

- Living Things and their habitats
- Animals including humans
  - Evolution and inheritance
  - Light
  - Electricity



### Science Y2

#### Topics

- Living things and their habitats
- Plants
- Animals, including humans
- Uses of everyday materials

### Science Y5

#### Topics

- Living things and their habitats
- Animals including humans
- Properties and changes to materials
- Earth and Space
- Forces

### Science Y4

#### Topics

- Plants
- Animals, including humans
- Rocks
- Light
- Forces and magnets

### Science Y3

#### Topics

- Plants
- Animals, including humans
- Rocks
- Light
- Forces and magnets

Science

To work scientifically

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p><i>Ask simple questions</i></p> <p><i>Explore how things work</i></p> <p><i>Use their senses in hands-on exploration, describing what they see, hear and feel.</i></p> <p><i>Explore the world around them.</i></p> <p><i>Talk about what they see, using a wide vocabulary</i></p> <p><i>Explore collections of materials.</i></p> <p><i>Talk about changes they see.</i></p> <p><i>Observe closely using simple equipment</i></p> <p><i>Perform simple tests</i></p> <p><i>Use observations and ideas to suggest answers to questions.</i></p>		<p><i>Ask simple questions</i></p> <p><i>Observe closely using simple equipment</i></p> <p><i>Perform simple tests</i></p> <p><i>Identify and classify.</i></p> <p><i>Use observations and ideas to suggest answers to questions.</i></p> <p><i>Gather and record data to help in answering questions.</i></p>		<p><i>Ask relevant questions.</i></p> <p><i>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</i></p> <p><i>Set up simple, practical enquiries and comparative and fair tests.</i></p> <p><i>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</i></p> <p><i>Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.</i></p> <p><i>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</i></p> <p><i>Identify differences, similarities or changes related to simple, scientific ideas and processes.</i></p> <p><i>Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.</i></p> <p><i>Use straightforward, scientific evidence to answer questions or to support their findings.</i></p>		<p><i>Plan enquiries, including recognising and controlling variables where necessary.</i></p> <p><i>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models</i></p> <p><i>Use test results to make predictions to set up further comparative and fair tests.</i></p> <p><i>Take measurements, using a range of scientific equipment, with increasing accuracy and precision.</i></p> <p><i>Present findings in written form, displays and other presentations.</i></p> <p><i>Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.</i></p> <p><i>Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions.</i></p>	

				<i>Gather, record, classify and present data in a variety of ways to help in answering questions.</i>			
<b>Plants</b>							
N	R	Y1	Y2	Y3	Y4	Y5	Y6
<i>Grow plants</i>	<i>Grow plants</i>	<p><i>Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen.</i></p> <p><i>Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</i></p>	<p><i>Observe and describe how seeds and bulbs grow into mature plants</i></p> <p><i>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</i></p>	<p><i>identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers.</i></p> <p><i>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.</i></p> <p><i>Investigate the way in which water is transported within plants.</i></p> <p><i>Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</i></p>	<i>N/A</i>	<i>Relate knowledge of plants to studies of evolution and inheritance.</i>	<i>Relate knowledge of plants to studies of all living things.</i>
<b>Animals including humans</b>							
N	R	Y1	Y2	Y3	Y4	Y5	Y6
<i>Learn about the life cycles of animals</i>	<i>Name and describe animals that live in different habitats.</i>	<i>Identify and name a variety of common animals that are birds, fish, amphibians,</i>	<i>Notice that animals, including humans, have offspring which grow into adults.</i>	<i>Identify that animals, including humans, need the right types and amounts of nutrition and, that</i>	<i>Construct and interpret a variety of food chains, identifying producers, predators and prey.</i>	<i>Describe the changes as humans develop to old age.</i>	<i>Identify and name the main parts of the human circulatory system, and describe the functions of</i>

<p><i>Compare adult animals to their babies</i></p> <p><i>Observe how baby animals change over time</i></p>	<p><i>Describe different habitats</i></p>	<p><i>reptiles, mammals and invertebrates.</i></p> <p><i>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</i></p> <p><i>Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets).</i></p> <p><i>Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</i></p>	<p><i>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</i></p> <p><i>Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</i></p>	<p><i>they cannot make their own food and they get nutrition from what they eat.</i></p> <p><i>Identify that humans and some animals have skeletons and muscles for support, protection and movement.</i></p>	<p><i>Describe the simple functions of the basic parts of the digestive system in humans.</i></p> <p><i>Identify the different types of teeth in humans and their simple functions.</i></p>		<p><i>the heart, blood vessels and blood.</i></p> <p><i>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</i></p> <p><i>Describe the ways in which nutrients and water are transported within animals, including humans</i></p>
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**Living things**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p><i>Explore the surrounding natural environment</i></p> <p><i>Explore natural objects from the surrounding environment</i></p>	<p><i>Explore the plants in the surrounding natural environment</i></p> <p><i>Explore the animals in the surrounding natural environment</i></p>	<p><i>N/A</i></p>	<p><i>Explore and compare the differences between things that are living, that are dead and that have never been alive.</i></p> <p><i>Identify that most living things live in</i></p>	<p><i>N/A</i></p>	<p><i>Recognise that living things can be grouped in a variety of ways.</i></p> <p><i>Explore and use classification keys to help group, identify and name a variety of living things in their</i></p>	<p><i>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</i></p>	<p><i>Describe how living things are classified into broad groups according to common, observable characteristics and based on similarities and differences, including micro-</i></p>

	<i>Explore plants and animals in a contrasting natural environment</i>		<p><i>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.</i></p> <p><i>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</i></p> <p><i>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.</i></p>		<p><i>local and wider environment.</i></p> <p><i>Recognise that environments can change and that this can sometimes pose dangers to living things.</i></p>	<p><i>Describe the life process of reproduction in some plants and animals.</i></p>	<p><i>organisms, plants and animals.</i></p> <p><i>Give reasons for classifying plants and animals based on specific characteristics.</i></p>
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**Evolution and inheritance**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p><i>Learn about the life cycles of humans</i></p> <p><i>Learn about how to take care of themselves</i></p> <p><i>Learn about their senses</i></p>	<p><i>Describe people who are familiar to them</i></p> <p><i>Learn about how to take care of themselves</i></p>	N/A	<i>Identify how humans resemble their parents in many features.</i>	<i>Identify how plants and animals, including humans, resemble their parents in many features.</i>	<i>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</i>	N/A	<i>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</i>

					Identify how animals and plants are suited to and adapt to their environment in different ways.		Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.  Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
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**Materials**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p>Explore a range of materials</p> <p>Shape and join materials</p> <p>Combine and mix ingredients</p> <p>Change materials by heating and cooling, including cooking</p>	<p>Explore a range of materials, including natural materials</p> <p>Make objects from different materials, including natural materials</p> <p>Observe, measure and record how materials change when heated and cooled</p> <p>Compare how materials change over time and in different conditions</p>	<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</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, and paper/cardboard for particular uses.</p>		<p><b>States of Matter</b></p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics.</p> <p>Identify the part played by evaporation and condensation in the</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</p>	N/A

		<i>simple physical properties.</i>			<i>water cycle and associate the rate of evaporation with temperature.</i>	<p><i>decide how mixtures might be separated, including through filtering, sieving and evaporating.</i></p> <p><i>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</i></p> <p><i>Demonstrate that dissolving, mixing and changes of state are reversible changes.</i></p> <p><i>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.</i></p>	
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**Movement, forces and magnets.**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<i>Feel forces</i>  <i>Explore how things work</i>	<i>Explore how to change how things work</i>	<i>Notice and describe how things move, using simple comparisons such as faster and slower.</i>	<i>N/A</i>	<i>Compare how things move on different surfaces. Notice that some forces need contact between two objects, but</i>	<i>N/A</i>	<p><b>Magnets</b> <i>Describe magnets as having two poles.</i></p> <p><i>Predict whether two magnets will attract or</i></p>	<i>N/A</i>



<p>Explore how objects/materials are affected by forces</p>	<p>Explore how the wind can move objects</p> <p>Explore how objects move in water</p>	<p>Compare how different things move.</p>		<p>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>repel each other, depending on which poles are facing.</p> <p><b>Forces</b> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces.</p> <p>Describe, in terms of drag forces, why moving objects that are not driven tend to slow down.</p> <p>Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.</p> <p>Understand that some mechanisms including levers, pulleys</p>	
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						and gears, allow a smaller force to have a greater effect.	
<b>Light</b>							
N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p>Explore light sources</p> <p>Shine light on or through different materials</p>	<p>Explore shadows</p> <p>Explore rainbows</p>	N/A	<p>Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.</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 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 change.</p>	N/A	N/A	<p>Understand that light appears to travel in straight lines.</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 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, and to predict the size of shadows when the position of the light source changes.</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>
<b>Sound and hearing</b>							
N	R	Y1	Y2	Y3	Y4	Y5	Y6

<i>Listen to sounds</i>  <i>Make sounds</i>	<i>Listen to sounds outside and identify the source</i>  <i>Make sounds</i>	<i>Observe and name a variety of sources of sound, noticing that we hear with our ears</i>	<i>N/A</i>	<i>N/A</i>	<i>Identify how sounds are made, associating some of them with something vibrating.</i>  <i>Recognise that vibrations from sounds travel through a medium to the ear.</i>  <i>Find patterns between the pitch of a sound and features of the object that produced it.</i>  <i>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</i>  <i>Recognise that sounds get fainter as the distance from the sound source increases.</i>	<i>N/A</i>	<i>Find patterns between the pitch of a sound and features of the object that produced it.</i>  <i>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</i>  <i>Recognise that sounds get fainter as the distance from the sound source increases</i>
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**Electrical circuits**

<i>N</i>	<i>R</i>	<i>Y1</i>	<i>Y2</i>	<i>Y3</i>	<i>Y4</i>	<i>Y5</i>	<i>Y6</i>
<i>Identify electrical devices</i>  <i>Use battery-powered devices</i>	<i>N/A</i>	<i>N/A</i>	<i>Identify common appliances that run on electricity.</i>  <i>Construct a simple series electrical circuit.</i>	<i>N/A</i>	<i>Identify common appliances that run on electricity.</i>  <i>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires,</i>	<i>N/A</i>	<i>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</i>  <i>Compare and give reasons for variations in how components function,</i>

					<p><i>bulbs, switches and buzzers.</i></p> <p><i>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.</i></p> <p><i>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</i></p> <p><i>Recognise some common conductors and insulators, and associate metals with being good conductors.</i></p>		<p><i>including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</i></p> <p><i>Use recognised symbols when representing a simple circuit in a diagram.</i></p>
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**Seasonal Changes**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
<p><i>Play and explore outside in all seasons and in different weather</i></p> <p><i>Observe living things throughout the year</i></p>	<p><i>Play and explore outside in all seasons and in different weather</i></p> <p><i>Observe living things throughout the year</i></p>	<p><i>Observe the apparent movement of the Sun during the day.</i></p> <p><i>Observe changes across the four seasons.</i></p> <p><i>Observe and describe weather associated with the seasons and how day length varies.</i></p>	N/A		N/A		N/A

**Earth and space**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
N/A	<p><i>Learn about the Earth, Sun, Moon, planets and stars</i></p> <p><i>Learn about space travel</i></p>			<p><i>Describe the movement of the Earth relative to the Sun in the solar system.</i></p> <p><i>Describe the movement of the Moon relative to the Earth.</i></p>		<p><i>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</i></p> <p><i>Describe the movement of the Moon relative to the Earth.</i></p> <p><i>Describe the Sun, Earth and Moon as approximately spherical bodies.</i></p> <p><i>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</i></p>	

**Rocks**

N	R	Y1	Y2	Y3	Y4	Y5	Y6
N/A	N/A			<p><b>Rocks and Soils</b></p> <p><i>Compare and group together different kinds of rocks on the basis of their simple, physical properties.</i></p> <p><i>Relate the simple physical properties of some rocks to their formation (igneous or sedimentary).</i></p>			

				<p><i>Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock.</i></p> <p><i>Recognise that soils are made from rocks and organic matter.</i></p>			
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NB- Individual pupil Science Assessments will be carried out half termly/termly and will not be recorded in this booklet.

