



Margaret Wix Primary School

"Excellence, Creativity, Individuality"



KS2 Science End Points

At Margaret Wix Primary School, we strive for all pupils to develop enthusiasm for learning so that they are fully engaged in Science and acquire the knowledge and skills that they will require to be successful both now, and in the future. Below are the end points that our curriculum is building towards; our school's curriculum is planned and sequenced so that knowledge and skills build on what has been taught before, enabling pupils to work towards these clearly defined end points.

| | |
|------------------------|---|
| Cultural capital | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Be inquisitive about the world around them by allowing time for exploration and questions• Build experiences and knowledge by immersing children in the world around them• Bringing science to life through real life experiences• Planning and participating in a week in the school year, dedicated solely to Science• Using the allotment to understand and explore growing and change over time• Studies of famous scientists• Use aspirations day to promote Science as a career path |
| Working Scientifically | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Describe and evaluate their own and others' scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources• Ask their own questions about the scientific phenomena that they are studying, and select the most appropriate ways to answer these questions, recognising and controlling variables where necessary (i.e. observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources)• Use a range of scientific equipment to take accurate and precise measurements or readings, with repeat readings where appropriate• Record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs• Draw conclusions, explain and evaluate their methods and findings, communicating these in a variety of ways• Raise further questions that could be investigated, based on their data and observations. |
| Plants | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Name, locate and describe the functions of the main parts of plants, |

| | |
|----------------------------------|--|
| | including those involved in reproduction and transporting water and nutrients |
| Animals including Humans | <p>Pupils will be able to:</p> <ul style="list-style-type: none"> Name and describe the functions of the main parts of the digestive, musculoskeletal and circulatory systems; and describe and compare different reproductive processes and life cycles in animals Describe the effects of diet, exercise, drugs and lifestyle on how the body functions Construct and interpret food chains |
| Materials | <p>Pupils will be able to:</p> <ul style="list-style-type: none"> Group and identify materials, including rocks, in different ways according to their properties, based on first-hand observation; and justify the use of different everyday materials for different uses, based on their properties Identify and describe what happens when dissolving occurs in everyday situations; and describe how to separate mixtures and solutions into their components Identify, with reasons, whether changes in materials are reversible or not Describe the characteristics of different states of matter and group materials on this basis; and describe how materials change state at different temperatures, using this to explain everyday phenomena, including the water cycle |
| Living things and their habitats | <p>Pupils will be able to:</p> <ul style="list-style-type: none"> Use the observable features of plants, animals and micro-organisms to group, classify and identify them into broad groups, using keys or other methods Describe the requirements of plants for life and growth [year 3]; and explain how environmental changes may have an impact on living things |
| Light & Sound | <p>Pupils will be able to:</p> <ul style="list-style-type: none"> Use the idea that light from light sources, or reflected light, travels in straight lines and enters our eyes to explain how we see objects, and the formation, shape and size of shadows Use the idea that sounds are associated with vibrations, and that they require a medium to travel through, to explain how sounds are made and heard Describe the relationship between the pitch of a sound and the features of its source; and between the volume of a sound, the strength of the vibrations and the distance from its source |
| Forces | <p>Pupils will be able to:</p> <ul style="list-style-type: none"> Describe the effects of simple forces that involve contact (air and water resistance, friction), that act at a distance (magnetic forces, including those between like and unlike magnetic poles), and gravity Identify simple mechanisms, including levers, gears and pulleys, that increase the effect of a force |

| | |
|---------------------------|--|
| Electricity | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Use simple apparatus to construct and control a series circuit, and describe how the circuit may be affected when changes are made to it; and use recognised symbols to represent simple series circuit diagrams |
| Evolution and inheritance | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved; and describe how fossils are formed and provide evidence for evolution |
| Earth & Space | <p>Pupils will be able to:</p> <ul style="list-style-type: none">• Describe the shapes and relative movements of the Sun, Moon, Earth and other planets in the solar system; and explain the apparent movement of the sun across the sky in terms of the Earth's rotation and that this results in day and night |