

# Subject Key Specification Policy



## Science

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## Rationale

### Trust Level

This document was created in conjunction with Science subject leads across the primary arm of the Rowan Learning Trust (RLT). Through this collaborative approach, '[Stage Descriptors](#)' were identified and agreed upon on a trust level. These descriptors provide a list of objectives which each school uses as their baseline/non-negotiable objectives, providing a moderated approach to the content delivered in Science lessons across the RLT. Science leads across the Trust worked together to ensure that these Stage Descriptors met the National Curriculum Aims and Objectives.

### School Level

Using these Stage Descriptors, each school within the RLT has personalised their curriculum to suit their context and individual needs. Here at Marus Bridge Primary School, the Stage Descriptors act as a baseline to our 'End Points Document', which lists each objective to be taught within each individual topic. Topics and End Points have been selected with a great deal of purpose to reflect the intent of our curriculum at Marus Bridge and ensure that knowledge is sequential and interconnected.

## Science Intent, Implementation and Impact

### Science Intent

We aim for our pupils to become keen scientists with an appreciation for the natural world. **Anchored by key subject knowledge**, we intend for our children to have the opportunity to take part in investigations and experiments, **putting their knowledge into practice!** We immerse our children in scientific vocabulary, which aids their knowledge and understanding not only of the topic they are studying, but also of the world around them. Children also have the opportunity to explore what it means to be a scientist, and the methods that scientists use to conduct their work. We intend for our pupils to therefore **understand science as a discipline** and how they might begin to work scientifically. At Marus Bridge, we aspire our children to become the great scientists of the future.

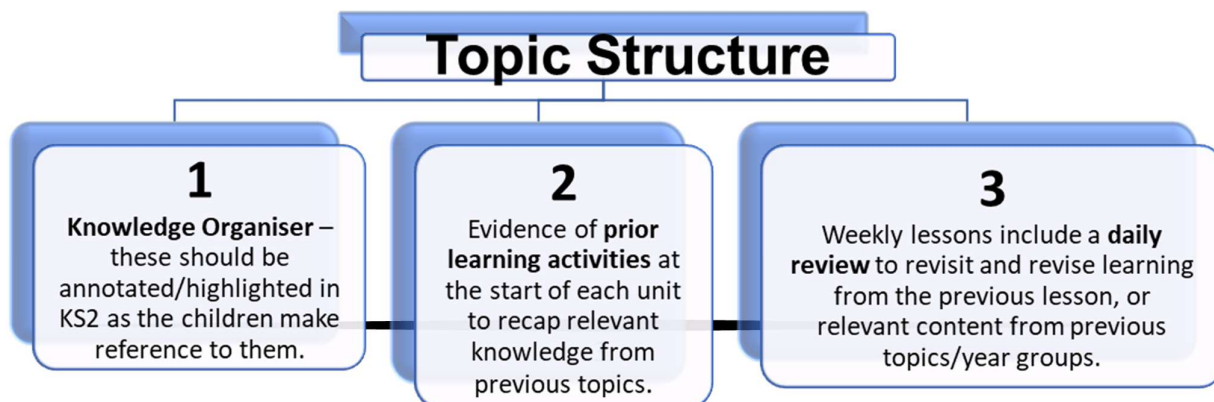
### Science Implementation

At Marus Bridge, our teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children can achieve high standards. Science is taught by class teachers for a minimum of **90 mins per week** in every classroom (although this is delivered more holistically in EY and Y1). All planning for science has been **created by class teachers, supported by the subject leader**. To support the acquisition of scientific vocabulary, tier 2 vocabulary has been carefully selected by the subject lead, and vocabulary reoccurs through the curriculum to support overlearning (See End Points document for **colour coding of vocabulary**).

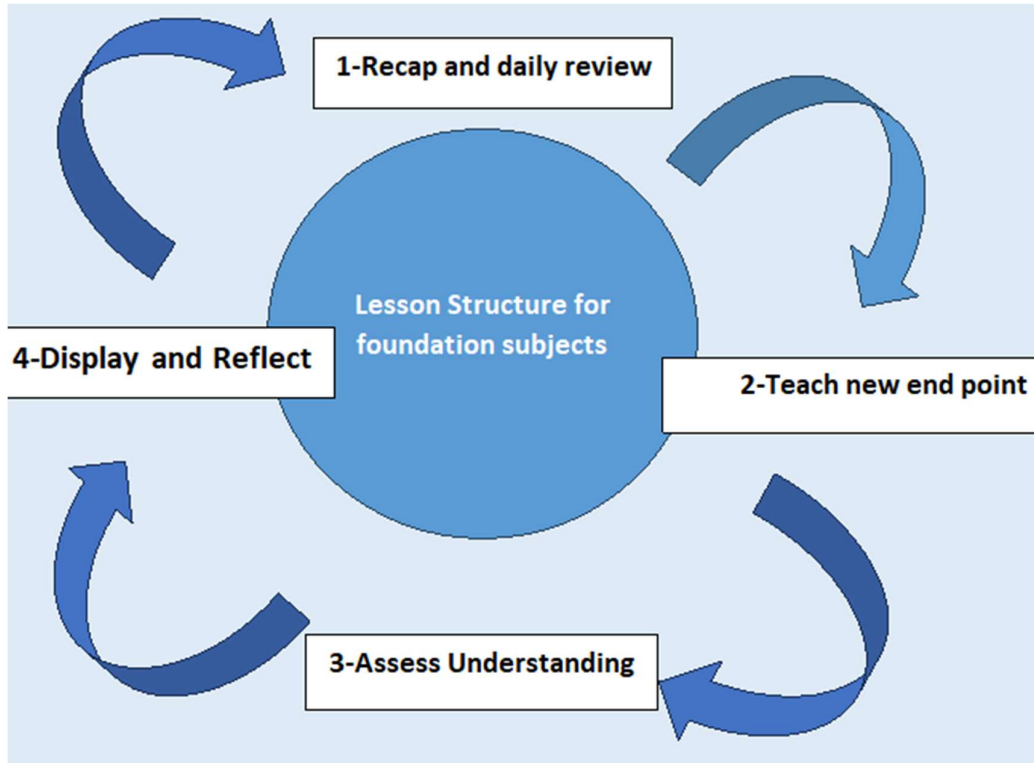
Teachers are mindful to ensure that all **practical investigations are based upon prior-subject knowledge** and use investigation, experiments and teacher demonstrations to illustrate and embed key scientific knowledge. In addition to subject specific knowledge, teachers also **build children's disciplinary knowledge** by exposing children to concepts which allow children to work scientifically. Outcomes relating to working scientifically are woven into our topics. To achieve this, each 'end point' has a corresponding symbol related to disciplinary knowledge which allows full and recurrent coverage of the working scientifically outcomes.

Children use our **bespoke science garden** along with the classroom environment to conduct their scientific work. The use of trips and visitors to enhance and support the teaching of science are encouraged together with a wide use of the school grounds. These have, in the past, included trips to Jodrell Bank to support the teaching of Earth and Space in Year five and visits from the Science Dome supporting Rocks, Volcanoes and Materials in Years three and four. We also have a range of **enrichment opportunities** including **gardening club, Eco Council and Forest School**.

In line with the National curriculum, our children study a range of **topics which reoccur in multiple year groups** across the school. It is this spiral approach to curriculum planning which allows us to capitalise on **prior-knowledge driven teaching and overlearning** to support retention. The framework below is implemented in each Science topic across the school (Y1-6) to support sticky learning.



In addition to our topic structure, teachers also plan lessons which follow our lesson structure below:



Our MB10 (see separate document) is also used across the breadth of the curriculum to ensure that cognitive learning strategies are used as a pedagogical tool to support effective teaching and learning.

### Science Impact

Every child at Marus Bridge receives a high-quality science education that provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Our teachers ensure that every child is exposed to high quality teaching and learning experiences, which allow children to explore their outdoor environment, thus developing their scientific enquiry and investigative skills. Our approach to science teaching at Marus Bridge results in a fun, engaging and rich experience for all our children.

It develops an innate sense of appreciation, wonderment and awe at the world around them.

Children at Marus Bridge will develop age related knowledge, which is organised into key points, and the scientific skills to equip them for everyday life.

As the children's knowledge and understanding increases and they become more proficient in



selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.

Children will have developed a rich scientific vocabulary, which will enable them to articulate their understanding of taught concepts.

Our engagement with the children's local environment ensures they learn through varied and first hand experiences of the world around them.

Through trips, visitors and interaction with experts, children have the understanding that science has changed our lives.

## Stage Descriptors

Stage Descriptors (agreed upon on a Trust level)	
<b>EYFS</b>	<ul style="list-style-type: none"> <li>Create collaboratively sharing ideas, resources and skills.</li> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>Explore the natural world around them.</li> <li>Describe what they see, hear and feel whilst outside.</li> <li>Recognise some environments that are different to the one in which they live.</li> <li>Understand the effect of changing seasons on the natural world around them.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>Know some similarities and differences between the natural world around them and contrasting environments,</li> <li>drawing on their experiences and what has been read in class.</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</li> </ul>
<b>KS1</b>	<p><b><u>Y1:</u></b> Working Scientifically</p> <ul style="list-style-type: none"> <li>ask simple scientific questions</li> <li>Use simple equipment to make observations</li> <li>carry out simple tests</li> <li>identify and classify things</li> <li>suggest what I have found out using everyday scientific words (Y1)</li> <li>use simple data to answer questions</li> <li>measure using non - standard units of measure, rulers and meter sticks.</li> </ul> <p>Animals including Humans</p> <ul style="list-style-type: none"> <li>I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and</li> <li>mammals.</li> <li>I can classify and name animals by what they eat (carnivore, herbivore and omnivore).</li> <li>I can describe and compare the structure of a variety of common sort animals (including fish, amphibians, reptiles, birds and mammals and pets).</li> <li>I can identify, name, draw and label the basic parts of the human body that I can see and say which part of the body is associated with each sense.</li> </ul> <p>Seasonal Changes</p> <ul style="list-style-type: none"> <li>I can observe and comment on changes across the four seasons.</li> <li>I can name the seasons and describe the weather associated with the seasons and how day length varies.</li> <li>I can keep a nature diary across the year (include all four seasons, pictures, notes, observations, examples of leaves/flowers, photos).</li> </ul> <p>Plants</p> <ul style="list-style-type: none"> <li>I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li>I can identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul> <p>Everyday Materials</p> <ul style="list-style-type: none"> <li>I can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</li> <li>I can distinguish between an object and the material from which it is made.</li> <li>I can describe the simple physical properties of a variety of everyday materials.</li> <li>I can compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>

### Y2:

#### Working Scientifically

- ask simple scientific questions
- use simple equipment to make observations
- carry out simple tests
- identify and classify things
- record what I have found out using everyday scientific words
- Use simple data to answer questions
- measure using non - standard units of measure, rulers and meter sticks.

#### Animals including Humans

- I can recognise that animals, including humans have offspring that grow into adults.
- I can describe the basic needs of humans and animals for survival (water, food and air).
- I can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

#### Living Things and Their Habitats

- I can explore and compare the differences between things that are living, things that are dead and things that have never been alive.
- I can 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.
- I can identify and name a variety of plants and animals in their habitats, including micro-habitats.
- I can describe how animals obtain food from plants and other animals, using the idea of simple food chain
- and identify and name different sources of food.
- I can observe living things in their habitats during different seasonal changes (keep a nature diary).
- Plants
- I can observe and describe how seeds and bulbs grow into mature plants.
- I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

#### Everyday Materials

- I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

LKS2

### Y3:

#### Scientifically Working

- ask relevant scientific questions
- use simple equipment, including thermometers and data loggers to make measurements
- use observations and knowledge to answer scientific questions
- set up a simple enquiry to explore a scientific question
- set up a test to compare two things
- set up a fair test and explain why it is fair
- make careful and accurate observations, including the use of standard units
- gather data in different ways to answer scientific questions
- record data in different ways to answer scientific questions
- classify data in different ways to answer scientific questions
- present data in different ways to answer scientific questions
- use diagrams, keys, bar charts and tables to represent scientific data
- report my findings using scientific vocabulary (including oral and written explanations)



- draw conclusions from my findings
- suggest improvements
- make a prediction with a reason
- identify differences, similarities and changes in results

#### Animals including Humans

- I can 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.
- I can explain why an adequate and varied diet is beneficial to health (along with a good supply of air and clean water).
- I can explain why regular and varied exercise is beneficial to health.
- I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.

#### Plants

- I can identify, locate and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
- I can 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 can investigate the way in which water is transported within plants.
- I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
- I can observe life cycles of plants across the year/seasons. (Our Changing World Modules)

#### Rocks

- I can compare and group together different kinds of rocks based on their appearance and simple physical properties.
- I recognise that soils are made from rocks and organic matter.
- I can describe in simple terms how fossils are formed when things that have lived are trapped within rock.

#### Light including reflection and shadows

- I recognise that we need light in order to see things and that dark is the absence of light.
- I notice that light is reflected from surfaces and explore how light behaves
- I recognise that light from the sun can be dangerous and that there are ways to protect my eyes.
- I recognise that shadows are formed when the light from a light source is blocked by a solid object.
- I can find patterns, when measuring, in the way that the size of shadows can change.

#### Forces and Magnets

- I notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- I can compare how some things move on different surfaces.
- I can compare and group together a variety of everyday materials based on whether they are attracted to a magnet and identify some magnetic materials.
- I can observe how magnets attract or repel each other and only attract some materials.
- I can describe magnets as having two poles (like and unlike poles).
- I can predict whether two magnets will attract or repel each other, depending on which poles are facing

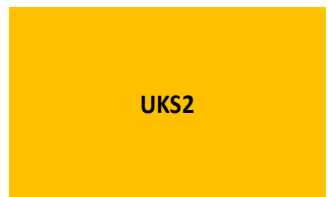
#### **Y4:**

##### Working Scientifically

- ask relevant scientific questions
- use simple equipment, including thermometers and data loggers to make measurements
- use observations and knowledge to answer scientific questions
- set up a simple enquiry to explore a scientific question
- set up a test to compare two things



- set up a fair test and explain why it is fair
  - make careful and accurate observations, including the use of standard units
  - gather data in different ways to answer scientific questions
  - record data in different ways to answer scientific questions
  - classify data in different ways to answer scientific questions
  - present data in different ways to answer scientific questions
  - use diagrams, keys, bar charts and tables to represent scientific data
  - report my findings using scientific vocabulary (including oral and written explanations)
  - draw conclusions from my findings
  - suggest improvements
  - make a prediction with a reason
  - identify differences, similarities and changes in results
- Electricity
- I can identify common appliances that run on electricity
  - I can construct a simple series electrical circuit, identify and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
  - I can 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 can 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 can recognise some common conductors and insulators and associate metals with being good conductors.
- Sound
- I can identify how sounds are made, associating some of them with something vibrating.
  - I can recognise that vibrations from sound travel through a medium to the ear.
  - I can find patterns between the volume of a sound and the strength of the vibrations that produce it.
  - I can recognise that sounds get fainter as the distance from the sound increases.
  - I can find patterns between pitch of a sound and the features of the object that produces it
- States of matter
- I can compare and group materials together, according to whether they are solids, liquids or gases.
  - I can observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
  - I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
- Environment – living things and their environment
- I can recognise that environments can change and this can sometimes pose dangers to living things.
  - I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Animals – teeth, eating and digestion
- I can describe the simple functions of the basic parts of the digestive system in humans.
  - I can identify the different types of teeth in humans and their simple functions.
  - I can construct and interpret a variety of food chains identifying producers, predators and prey.
  - I can recognise that living things can be grouped in a variety of ways.



UKS2

- Y5:**
- Working Scientifically
- plan different types of scientific enquiry
  - control variables in an enquiry
  - measure accurately and precisely using a range of equipment
  - record data and results using scientific diagrams and labels (Y5&6)

- record data and results using classification keys (Y5&6)
- record data and results using tables (Y5&6)
- record data and results using scatter graphs (Y6)
- record data and results using bar graphs (Y5)
- record data and results using line graphs (Y6)
- use test results to make predictions
- set up further comparative fair tests
- report findings
- explain a conclusion
- explain causal relationships
- use evidence to support or refute a scientific argument or theory

#### Earth and Space

- I can describe the movement of the Earth and other planets, relative to the Sun in the Solar System.
- I can describe the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
- I can describe the movement of the Moon relative to the Earth
- I can describe the sun, moon and Earth as approximately spherical bodies.

#### Forces

- I can identify the effects of air resistance, water resistance and friction, which act between moving surfaces.
- I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

#### Living Things and Life Cycles

- I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- I can describe the life processes of reproduction in some plants and animals.
- I can describe the changes as humans develop to old age

#### Materials and their Properties

- I can compare and group together everyday materials based on evidence from comparative and fair tests, including hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.
- I can give reasons, based on evidence from comparative and fair tests, for specific uses of everyday materials, including metals, wood and plastic.

#### Materials – Changing State

- I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- I know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.
- I can demonstrate that dissolving, mixing and changes of state and reversible changes.
- I can 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.

#### Y6:

##### Working Scientifically

- plan different types of scientific enquiry
- control variables in an enquiry
- measure accurately and precisely using a range of equipment
- record data and results using scientific diagrams and labels (Y5&6)
- record data and results using classification keys (Y5&6)
- record data and results using tables (Y5&6)

- record data and results using scatter graphs (Y6)
- record data and results using bar graphs (Y5)
- record data and results using line graphs (Y6)
- use test results to make predictions
- set up further comparative fair tests
- report findings
- explain a conclusion
- explain causal relationships
- use evidence to support or refute a scientific argument or theory

#### Animals – Exercise, health and the Circulatory System

- I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
- I can describe the ways in which nutrients and water are transported within animals, including humans.
- I recognise and can describe the impact of diet, exercise, drugs and lifestyle on the way bodies function.

#### Living Things and Their Habitats – - Classification

- I can 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.
- I can give reasons for classifying plants and animals based on specific characteristics.

#### Living Things and Their Habitats – Evolution and Inheritance

- I recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
- I can recognise that living things on earth have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

#### Light – How Light Travels

- I can explain that we see things because the light travels from light sources to our eyes or from light sources to objects and then to our eyes (and represent this in simple diagrammatic form).
- I can recognise that light appears to travel in straight lines and 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.
- I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

#### Electricity

- I can use recognised symbols (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram.
- I can compare the functions of different components giving reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
- I can associate and explain the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- I can use/interpret circuit diagrams to construct a variety of more complex circuits predicting whether they will 'work'.

## Science Planning at Marus Bridge

### Long Term Plans

Each year group provides LTPs which give an overview of the learning/topics which will take place over the course of the year. These are shared with parents on our website.

### Medium Term Plans

MTPs are completed by class teachers every half term. The MTP maps out the sequence of objectives to be taught within the science topic for that half term. MTPs list the lesson objectives (presented as a WALT to the children) and documents the basic overview of the lessons. Weekly plans, PowerPoints and lesson resources are then saved in the staff Shared Area and audited by the subject and curriculum lead annually.

### Scheme of Work

The following topics/scheme of work is followed here at Marus Bridge. All planning for these topics has been developed by class teachers using the Collins Snap Science scheme as a base. Objectives for each topic can be found within the Science End Point Document.

	AUTUMN	SPRING	SUMMER
<b>YEAR 1</b>	Everyday Materials	Looking at Animals	Plant Detectives
<b>Our Changing World</b>	Using our senses	Everyday Materials	Everyday Materials
	Plants Animals Antics Sensing Seasons	Plants Animals Antics Sensing Seasons	Plants Sensing Seasons
<b>YEAR 2</b>	Materials – Good Choices	Materials – Shaping up	Growing up
<b>Our Changing World</b>		The apprentice gardener	Take care The apprentice gardener
	What is in your habitat?	What is in your habitat?	What is in your habitat?

<b>YEAR 3</b>	Amazing Bodies Can you see me?	Forces & Magnets	Light inc. reflections and shadows. Animals inc. humans with health and nutrition
	<b>Our Changing World</b>	Our Changing World (Plants)	Our Changing World (Plants)
<b>YEAR 4</b>	Where does all that food go? In a state	Good Vibrations Electricity	Where does all that Food go? Who am I? In a state
	<b>Our Changing World</b>	Our Changing World (Classification Keys – Trees)	Our Changing World (Classification Keys – Trees)
<b>YEAR 5</b>	Get Sorted Every day materials Feel the Force	The Earth and beyond Circle of Life Reproduction in Plants and Animals	Reproduction in Plants and Animals Marvellous Mixtures Materials: All change!
	<b>Our Changing World</b>	Our Changing World (Plants - life cycles)	Our Changing World (Plants – life cycles)
<b>YEAR 6</b>	Everything Changes Lighten up your world	Body Pump Danger! Low voltage	Nature Library Body health
	<b>Our Changing World</b>	Our Changing World (Plants – their environments)	Our Changing World (Plants – their environments)



## Science Assessment at Marus Bridge

In Reception, children are assessed against the Early Learning Goals for 'Understanding the World'. For children in Years 1 - 6, children are summatively assessed in Science at the end of each academic year on Arbour (our internal assessment system). These assessments are based on children's engagement, retention and articulation of the 'End Point' objectives for their year group. To inform these assessments, class teachers conduct a range of ongoing assessments and recap activities. They also complete an end of unit assessment for each topic. In Y6, children complete 3 assessments in each area of science (biology, chemistry and physics) which informs our final KS2 judgement.

The following formative assessment strategies support teacher observation and data collection:

- Informal quizzes
- Classroom questioning
- Daily Review analysis
- Questionnaires
- Self and peer assessments
- Presentations
- Speaking and listening activities
- Prior learning activities
- Knowledge Review Week activities
- End of unit formative assessments (completed a few weeks after the topic has finished)

At the end of each academic year, each child is assigned one of the following gradings on Arbour:

<b>PKS</b> (Pre-Key Stage)	Children have not been exposed to the full curriculum due to a significant SEND.
<b>HNM</b> (Has Not Met)	Children can't articulate answers to the majority of the questions listed in the End Point document for this subject.
<b>EXS</b> (Expected)	Children can articulate answers to the majority of the questions listed in the End Point document for this subject.
<b>Gifted and Talented</b>	Children show a specific talent for an aspect of the subject.

## Resources:

The following resources are available to support the delivery of the Science curriculum at Marus Bridge:

- Knowledge Organisers for each topic (developed in-house to reflect our bespoke curriculum)
- Topic planning resources (Collated in the planning folder)
- Topic-specific non-fiction books (stored in the school library)
- Library loan books (based on a specific topic) can be hired from Marsh Green Library free of charge.
- Educational visits are planned to enhance learning and give hands on activity.
- A range of equipment to support fieldwork can be accessed from the Science cupboard.
- Each key stage has a class set of atlases.
- Each class has a globe, along with globes for the children to handle (stored in the science cupboard)
- A range of maps are available + our world map wall in UKS2.

## Health and Safety

When delivering practical lessons or group work, ensure the classroom has sufficient space for the children to work safely. If furniture is needed to be moved, tables and chairs should be stacked neatly against the sides of the room and do not allow children to sit on them while stacked.

When handling equipment, ensure children are aware of how to handle them safely.

Ensure appropriate risk assessments have taken place when planning external visits (see school policy guidelines).

Pupils will be taught to use scientific equipment safely when using it during practical activities. Class Teachers and Teaching Assistants will check equipment prior to use and report any damage, taking defective equipment out of action, informing the science coordinator.

Some scientific enquiries may require its own risk assessment. For such lessons, discuss the risk assessment with the science coordinator.



## Safeguarding Considerations

Any external providers must provide evidence in the office of the Enhanced DBS before being left alone with pupils. They must also be reminded of the importance of not using mobile phones within the school.

## Inclusion Considerations

The class teacher meets the needs of the most able and SEN by differentiating Science lessons through levels of support provided and adopting a mastery approach. Children identified as having additional Special Educational Needs may need greater differentiation of materials and tasks consistent with that child's I.E.P. (Individual Education Plan). More able children will be challenged and motivated by greater differentiation of challenge. The class teacher also aims to identify those children who may be gifted in Science and provide them with appropriate learning opportunities. All children will be given opportunities to participate on equal terms in all Science activities and due consideration will be given to the principles of inclusion.

As a school, we use our 'SEND Toolkit for the Wider Curriculum' to ensure every child's needs are met in Science:

Non-Negotiable Adaptions  
(should be considered in **EVERY** lesson):

- 1) **Reduce** the amount of knowledge to be learnt (3-4 pieces maximum)
- 2) **Concentrate on the content**, not the task
- 3) Link to **prior-knowledge**
- 4) **Limit admin tasks** (avoid spending too much time on admin which may hinder cognitive load – such as cutting out or writing long WALTs)
- 5) **Model activities** (I do – we do- you do)
- 6) **Consider IEPs/EHCPs** (Ie – consider how a hands-on activity might affect those with sensory needs and adapt appropriately. Consider whether buff printing will be helpful)

Possible Adaptions

(Select where appropriate for each subject/lesson):

<p><b>Visual Aids</b> Provide images to explain vocab/concepts rather than wordy definitions</p>	<p><b>Key Vocabulary Banks</b> Using vocab from the End Points, reduce the number and send some key vocab home, or rehearse in school.</p>	<p><b>Continuous Provision</b> Provide an alternative hands-on activity for the children to access.</p>	<p><b>Pre-Teaching</b> Could a member of staff/a volunteer give some input before the lesson?</p>
<p><b>Mixed Ability Groups/Pairs</b> Try to limit group size to 3 children to ensure that all children are actively involved. Give SEND children a specific role within the group.</p>	<p><b>Print Longer WALS</b> Depending on individual needs, this may help some SEND children to reduce cognitive load.</p>	<p><b>Adapted Knowledge Organiser</b> Reduce the vocabulary and provide visuals.</p>	<p><b>Differentiated Texts</b> If using texts/books as the source of information, differentiate the text/book. Use online sources for this for workload</p>
<p><b>Provide Additional Adult Support</b></p>	<p><b>Provide Additional Brain Breaks</b></p>	<p><b>Simplified Recording Methods</b> Such as a reduced table in science, or a partially completed bar chart</p>	<p><b>Differentiated Research Sources</b></p>
<p><b>Consider Timings of Interventions</b> Ensure that children do not miss a whole unit/input for intervention.</p>	<p><b>Reduce Distractions</b> (In a lesson such as music, would excess noise prevent children from engaging? Could they complete the lesson in a quieter spot?)</p>	<p><b>Adapt the Apparatus</b> Eg – provide larger equipment in PE etc...</p>	<p><b>Individual Interests</b> Tap into individual interests to help represent information. Eg – a child who loves drawing might make a picture to represent what they've learnt in Science</p>



## Subject Monitoring:

The Science coordinator will complete one audit within each academic year to assess children's understanding and monitor teaching against the National Curriculum and End Point Objectives. This will focus on sampling children's work/books, child interviews and lesson drop ins/observations.

Science is audited in the autumn term each year, and an action plan for the following 12-month period is devised in response to the audit.

In the spring and summer terms, the Science lead will be given time (up to a full day each term if needed) to implement actions to support their action plan targets and provide support when needed. Support will be offered to any year groups who require additional information and guidance. This may be done by: discussing assessment methods; modelling lessons; inviting teaching staff to observe the Science coordinator; providing training or observing lessons and providing constructive feedback.

Governors are to be provided with an update each term in relation to the subject development. The Governor currently assigned to Science at Marus Bridge is Ruth Crossley.



Our logo was carefully chosen to represent the children, young people and adults in our learning community who strive for excellence through high aspiration and high expectation.

