

UKS2 Science Parent Event

Our intent:

Every child at Cookridge Primary School will develop the scientific knowledge and conceptual understanding to succeed in becoming confident, enthusiastic and capable scientists of the future. Science at Cookridge has a 'hands on' and interactive approach which not only inspires all children to achieve their best, but allows them to speculate, enquire and hypothesise about the world and all of its wonders. We provide all our pupils with the opportunity to succeed and to reach the highest level of personal achievement in science. We do this by ensuring equality of access for all pupils in science and preparing them for life in a diverse society. We do this by providing opportunities for pupils to appreciate their own culture and celebrate the diversity of other cultures, ensuring all scientific equipment and materials are inclusive, supporting protected characteristics of students and staff. The children will become respectful members of an ever-diversifying world, respecting all people's protected characteristics, as required by law. We will make reasonable adjustment to make sure all children can access the curriculum whatever their need.





Website

Welcome to
Cookridge Primary

We Believe

'Together we Achieve the Extraordinary'

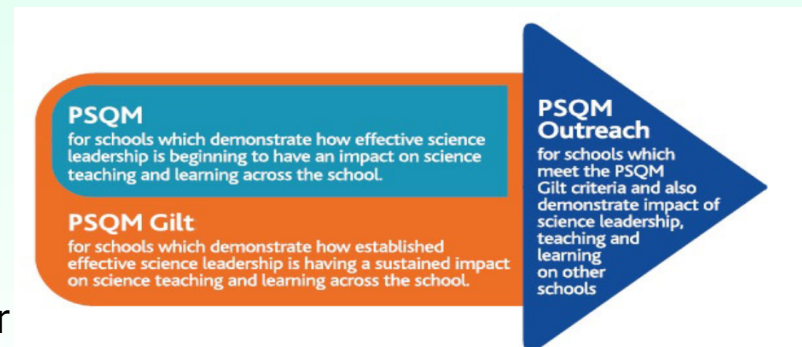
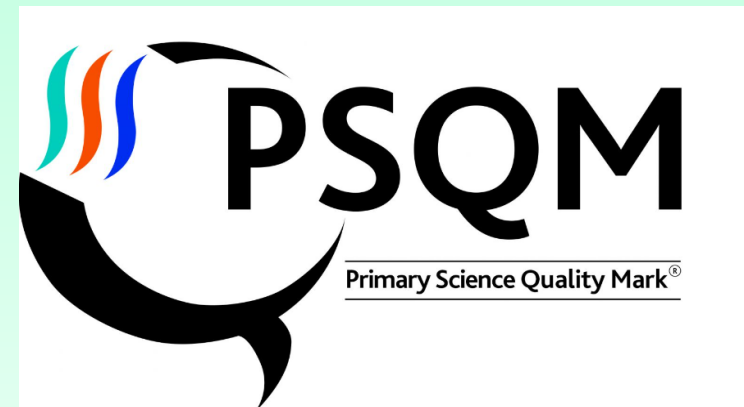


- Knowledge and skills progression document
- Long term plans
- Examples of what science looks like in school



Why PSQM?

- > Enables science subject leaders to develop and articulate a clear intent and aspirational vision for science.
- > Supports schools to effectively implement a curriculum for science that is informed by research evidence and best practice data.
- > Ensures strong and positive impact: Children make good progress, building and consolidating their knowledge and skills, developing positive attitudes about science and its value to their lives and globally. Teachers and children enjoy their science lessons.



staff

key stakeholders

students

Lessons are varied, fun and child led.

Science is memorable, with varied experiences, including: experiments, trips and discussions.

Children are encouraged to ask questions, use enquiry skills and think about the 'big questions'.

Science is interwoven with links to outdoor learning and Forest



Science is underpinned and linked with key reading and mathematical skills.

Science is taught using a mix of substantive and disciplinary knowledge.

Children are inspired by and learn about real scientists of all demographics.

Science is contextualised in the world of the children.

Science is linked with other topics across the curriculum.

Science is accessible to all children, regardless of protected characteristics.

Science is taught through practical lessons, alongside theoretical ones.

Science planning and teaching is guided by the school framework.



LTP and frameworks

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">SCIENCE</p> <p>Science: Working scientifically Sc1n1.1: I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Sc1n2.1: I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Sc1n3.1: I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Sc1n4.1: I can use test results to make predictions to set up further comparative and fair tests. Sc1n5.1: I can report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Sc1n6.1: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>	<p>Properties and changes of materials (Y5) SC1.1: I can 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. (Y5) SC2.1: I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution and demonstrate that dissolving, mixing and changes of state are reversible changes. (Y5) SC3.1: I use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. (Y5) SC4.1: 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. (Y5) SC5.1: I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastics.</p>	<p>Science: Evolution & Inheritance (Y6) SC6.1: I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6) SC7.1: I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6) SC8.1: I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Y6)</p>	<p>Science: Evolution & Inheritance (Y6) SC6.1: I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6) SC7.1: I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6) SC8.1: I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Y6)</p>	<p>Animals including humans (Y5) SC9.1: I can describe the changes as humans develop to old age. (Y5) SC10.1: I can describe the ways in which nutrients and water are transported within animals, including humans. (Y6) SC11.1: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (Y6). SC12.1: I can recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>bodies</u> function. (Y6)</p>	<p>Animals including humans (Y6) SC9.1: I can describe the changes as humans develop to old age. (Y5) SC10.1: I can describe the ways in which nutrients and water are transported within animals, including humans. (Y6) SC11.1: I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (Y6). SC12.1: I can recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>bodies</u> function. (Y6)</p>
<p>Working scientifically: coverage Sc1n1.1: I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Sc1n2.1: I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Sc1n3.1: I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Sc1n4.1: I can use test results to make predictions to set up further comparative and fair tests. Sc1n5.1: I can report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Sc1n6.1: I can identify scientific evidence that has been used to support or refute ideas or arguments.</p>					

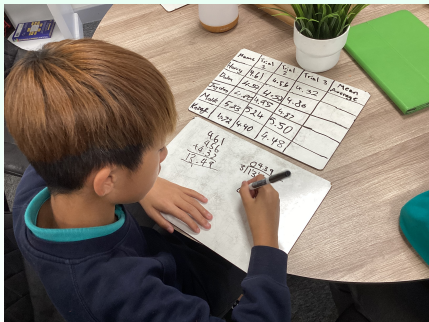


LTP and frameworks

The following objectives need to be secured in a range of scientific investigation.								
Key Learning for Secure – Scientific Enquiry			Baseline	Aut.2	Sec.1	Sec.2	Sum 1	Final
ScIn1.1	I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.							
ScIn2.1	I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.							
ScIn3.1	I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.							
ScIn4.1	I can use test results to make predictions to set up further comparative and fair tests.							
ScIn5.1	I can report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.							
ScIn6.1	I can identify scientific evidence that has been used to support or refute ideas or arguments.							
							Attainment – Bel, EXS, GDS	
Properties of Everyday Materials	SC1.1	I can 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. (Y5)						Autumn 2
	SC2.1	I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution and demonstrate that dissolving, mixing and changes of state are reversible changes. (Y5)						
	SC3.1	I use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. (Y5)						
	SC4.1	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. (Y5)						
Evolution & Inheritance (Y6)	SC6.1	I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6)						Spring 1 & 2
	SC7.1	I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6)						
	SC8.1	I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Y6)						
Animals (Y5, humans (Y5&6)	SC9.1	I can describe the changes as humans develop to old age. (Y5)						Summer 1 & 2
	SC10.1	I can describe the ways in which nutrients and water are transported within animals, including humans. (Y6)						
	SC11.1	I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. (Y6).						
	SC12.1	I can recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>hurdies</u> function. (Y6)						



Working Scientifically:



Questions?



Attachments

Presentation.pptx

SMARTbot Scenarios - Activity Sheet.pdf

Senario Cards.pdf