Be the best for God you can be!

Our vision is that we become the best for God that we can be, in all we do, whilst demonstrating Christian values which are pertinent to all faiths.

Our vision is based on Colossians 3:23. *'Whatever you do, work at it with all your heart, as though you were working for the Lord and not for people.'*

Trust:
'Trust in the Lord with all your heart and lean not on your own understanding'
Proverbs 3:5

Compassion:
'Love the Lord your God with all your heart, with all your soul and with all your mind. And love your neighbour as yourself'
Matthew 22:37

Thankfulness:
'Be thankful in all circumstances. This is what God wants from you in your life'
Thessalonians 5:18

Hope:
'But those who hope in the Lord will renew their strength'
Isaiah 40:31

Perseverance:
'I know your deeds, your love and faith, your service and perseverance'
Revelations 2:19

Forgiveness:
'For if you forgive other people when they sin against you, your heavenly father will also forgive you'
Matthew 6:14

Science Policy

1. Statement of intent

At St Barnabas and St Paul's Church of England Primary School, our vision is that we become the best for God that we can be, in all we do, whilst demonstrating Christian values which are pertinent to all faiths.

Our vision is based on *Colossians 3:23, 'Whatever you do, work at it with all your heart, as though you were working for the Lord and not for people.'*

At St. Barnabas and St. Paul's Primary School, we recognise that it is vitally important to develop a secure understanding of concepts in Science. This is developed progressively by encouraging a lively and enquiring mind. The context in which Science is taught is carefully considered, enabling pupils to begin to acknowledge the relevance of the subject in the real world and make strong mathematical and reading links. The majority of our children have English as an additional language, therefore a strong focus is placed on vocabulary and language development which is supported through our book-based curriculum. Through our Science curriculum, our children understand the importance of science and scientists in the past, present and in the future.

At our school, Science is fully inclusive to every child. Our aims are to fulfil the requirements of the National Curriculum; providing a broad and balanced curriculum; ensuring the progressive development of knowledge, skills and vocabulary and for the children to develop a love of Science. We teach Science through biology, chemistry and physics, and develop our children's ability to work scientifically. Furthermore, we aim to inspire in pupils a curiosity and fascination about the natural and man-made world and a respect for the environment that will remain with them for the rest of their lives. This includes the lessons they complete in the classroom but also the first-hand experiences that they are offered, such as educational visits, residentials and enrichment days.

1.1 Aims

Through the teaching of Science, we aim:

- To develop pupils' interest in, and enjoyment of, Science. By building on children's curiosity, the Science curriculum will help to instil a positive attitude towards science in pupils.
- To deliver all the requirements of the National Curriculum in relation to Science and cover major scientific concepts.
- To ensure Science lessons are purposeful.
- To ensure pupils have sufficient scientific knowledge to understand both the uses and implications of science today, and in the future. This will also give pupils an appreciation of the changing nature of scientific knowledge.
- To develop the understanding of how to work scientifically by:

- The development of pupils' ability to pose questions, investigate these using correct techniques, accurately record their findings using appropriate scientific language and analyse their results.

- Helping pupils develop the skills of prediction, hypothesising, experimentation, investigation, observation, measurement, interpretation and communication.
- Making pupils aware of and alert to links between Science and other school subjects, as well as their lives more generally.

2. Roles and responsibilities

The subject leader is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for the subject, liaising at all times with SLT.
- Reviewing changes to the National Curriculum and advising on their implementation.
- Monitoring the teaching and learning of Science, providing support and training for staff where necessary.
- Encouraging staff to provide effective learning opportunities for pupils.
- Ensuring the continuity and progression from year group to year group.
- Helping to develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all Science resources.
- Communicating developments in the subject to all teaching staff.
- Organising, providing and monitoring CPD opportunities in the subject.
- Advising on the contribution of Science to other curriculum areas, including cross-curricular and extra-curricular activities.
- Communicating developments in the subject to all teaching staff.
- Leading staff meetings and providing staff members with the appropriate training.
- Organising, providing and monitoring CPD opportunities in the subject.
- Ensuring common standards are met for recording and assessment.
- Advising on the contribution of Science to other curriculum areas, including cross-curricular and extra-curricular activities.
- Collating assessment data and setting new priorities for the development of Science in subsequent years.

The **classroom teacher** is responsible for:

- Acting in accordance this Science Policy, ensuring that lessons are taught in line with the school's Science Health and Safety Policy at all times.
- Ensuring progression of pupils' scientific skills in lessons, with due regard to the National Curriculum.
- Planning and teaching lessons effectively, ensuring a range of teaching methods are used to cover the content of the National Curriculum.
- Liaising with the subject leader about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class and intervening when concepts are not understood by pupils
- Reporting any concerns regarding the teaching of the subject to the subject leader or a member of the senior leadership team (SLT).

- Undertaking any training that is necessary in order to effectively teach the subject.
- Mark books in-line with the marking policy

The **special educational needs coordinator (SENCO)** is responsible for:

- Liaising with the subject leader in order to implement and develop Science for children on the SEN register
- Organising and providing training for staff regarding the Science curriculum for pupils with special educational needs and disabilities (SEND).
- Advising staff how best to support pupils' needs.
- Advising staff on the inclusion of scientific objectives in pupils' individual education plans.
- Advising staff on the use of 1:1s in order to meet pupils' needs.

3. Early years provision

Early years is taught in accordance with the 'Statutory framework for the early years foundation stage,' focus will be put on the seven areas of learning, with the scientific aspect of pupils' work relating to the objectives set out within the framework.
By the end of the EYFS, children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

A break-down of Science taught in the EYFS can be found in appendix 1, section 1.1

4. The National Curriculum

The National Curriculum for Science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of scientific enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

The National Curriculum for Key Stage 1 and 2 is followed can be found in appendix 1, section 1.2, which provides a full breakdown of the statutory content to be taught within each unit.

Cross-curricular links

Wherever possible, the Science curriculum will provide opportunities to establish links with other curriculum areas.

English
Pupils are encouraged to use their speaking and listening skills to describe what is happening. Pupils' writing skills are developed through recording their planning, what they observe and what they found out. Science based texts are sometimes used in English lessons and in Whole Class Reading sessions. All Science lessons begin with a quality text linked to the scientific topic covered during that lesson.

Maths
Science will involve a degree of numeracy at all levels. Pupils use their knowledge and understanding of measurement and data handling. Where appropriate, pupils record their findings using charts, tables and graphs.

ICT
Pupils will use ICT to locate and research information. ICT will be used to record findings, using text, data and tables. Pupils are encouraged to use calculators and other devices, gaining confidence throughout their school experience.

PSHE
Health education is taught as part of the Science unit about ourselves, which covers:

- Health and growing
- Teeth and eating
- Moving and growing
- Keeping healthy
- Life cycles

History
Scientific discoveries and the contribution of individuals to science will be studied.

Spiritual development
Pupils' development will be focussed on the vastness of Science and the natural world, encouraging a sense of awe. Pupils are encouraged to think about the effect of scientific discoveries on the modern world. Current scientific developments and issues will be discussed in the classroom, where appropriate.

5. Planning

All relevant staff members are briefed on the school's planning procedures as part of their staff training and induction. Throughout St Barnabas and St Paul's, Science is taught as a discrete lesson and as part of cross-curricular themes when appropriate.

5.1 Long Term Plans and Medium Term Plans

- Long-term planning will be used to outline the units to be taught within each year group.
- Medium-term planning will be used to outline the vocabulary and skills that will be taught in each unit of work, as well as highlighting the opportunities for assessment.
- Medium-term plans will identify learning objectives, main learning activities and scaffolding opportunities.

- Medium term plans also give guidance to teachers regarding misconceptions, and conducting experiments to support the lesson objective.

The overviews are designed to:

- Ensure teachers stay in the required key stage and support the ideal of depth before breadth.
- Ensure students have the opportunity to stay together as they work through the schemes as a whole group.
- Provide plenty of time to build reasoning and problem solving elements into the curriculum.
- To support staff with subject knowledge when teaching Science.

The LTPs and MTPs are used as a guidance tool in order to pace out coverage of the curriculum throughout the year. Teachers are encouraged to use professional discretion when deciding on how long is needed on a particular curriculum area whilst ensuring all objectives are covered by the end of the academic year.

5.2 Short term planning

Teachers need to use the medium term plans to produce short term plans that break learning down further. Teachers must ensure that their lessons demonstrate a balance of interactive and independent elements, ensuring that all pupils engage with their learning.

6. Teaching and learning

- A review of 4-5 questions linked to prior learning in Science is used to recap concepts or to address any misconceptions
- An introductory text linked to the lesson is used at the beginning of all Science lessons
- A teaching input which should teach concepts and vocabulary through modelled examples
- All lessons consist of a teacher-lead experiment, a pupil-lead experiment or both when possible
- Plenaries are used at the end of all Science lessons to challenge pupils and their understanding
- An exit ticket is completed by all children at the end of each Science lesson. This consists of 3-4 questions recapping the concepts of the lesson

Pupils will be taught to describe associated processes and key characteristics in common language, as well as understand and use technical terminology and specialist vocabulary.

Lessons will allow for a wide range of scientific enquiry, including the following:

- Questioning, predicting and interpreting
- Pattern seeking
- Practical experiences
- Collaborative work
- Carrying out investigations
- Carrying out time-controlled observations

- Classifying and grouping
- Undertaking comparative and fair testing
- Researching using secondary sources
- Opportunities for outdoor learning will be provided wherever possible.

Teachers are to use, and expect pupils to use, correct scientific vocabulary in line with the MTPs. Scientific errors and misconceptions should be dealt as soon as possible through mini-plenaries and marking.

Pupils should complete work using a balance of independent, group and paired working. Where appropriate, lessons can be fully practical with evidence collected on iPads or working walls but teachers should still assess the children's understanding using appropriate assessment methods.

The classroom teacher, in collaboration with the subject leader, will ensure that the needs of all pupils are met by:

- Setting tasks which can have a variety of responses.
- Utilising teaching assistants/ teachers to ensure that pupils are effectively supported.
- Keeping instructions short, and using visual prompts.
- Allowing additional time to complete a task
- Clearly labelling equipment
- Providing templates for experiment write ups
- Using mixed-attainment groupings
- Using a multi-sensory approach to learning.

7. Assessment and Reporting

Science should be assessed both formally and informally, using a mixture of summative and formative assessment techniques.

7.1 Formative and Summative assessment

Formative assessment should be used throughout the year in order to monitor children's understanding of scientific concepts on a day to day basis and address misconceptions immediately. This type of assessment should inform a teacher's immediate lesson plans.

Throughout the year, teachers will plan on-going formative assessment opportunities in order to gauge whether pupils have achieved the key learning objectives which can include:

- Talking to pupils and asking questions
- Discussing pupils' work with them
- Marking work against the learning objectives
- Pupils' self-evaluation of their work
- Classroom quizzes
- Knowledge organiser quizzes

After each unit, teachers should keep a track of whether each child is working at the expected standard by completing a simple tracker. Children in KS1 and KS2 will be formally assessed by their class teacher at the end of each term. Class teachers will assess each child based on their understanding of the completed Science units by stating whether each child is on track to achieve the expected standard. At the end of the year, teachers will input whether each child in their class in working towards, expected, or greater depth in Science. The subject leader will then analyse the data and complete pupil conferencing and book scrutinise to ensure the level of assessment is accurate.

The progress and development of pupils within the EYFS is assessed against the early learning goals outlined in the 'Statutory framework for the early year's foundation stage'.

Science assessment data throughout the school will be monitored by the Science lead, termly, and SLT and used to inform future areas for development to drive progress in the subject.

7.3 Reporting to Parents

Verbal reports will also be provided at parent-teacher evenings during the Autumn and Spring terms which will go into more detail regarding their child's understanding of Science. The Summer written report will detail attainment and effort in Science.

8. Equipment and resources

- Science resources for each unit are stored in appropriate units in the science cupboard**.**
- Equipment will be checked prior to each use and any damages or defects must be reported to the subject leader immediately.
- The subject leader is responsible for maintaining an inventory of resources.
- Staff members must inform the subject leader of any changes regarding science resources, such as broken items or when new resources are required.
- Any equipment or resources which are a cause of concern will be removed from the science cupboard immediately.
- The subject leader will carry out an annual audit of the science resources, reordering any consumables when necessary.
- Class teachers can discuss the need for new resources with the subject leader.
- The subject leader is responsible for negotiating requests from staff members and ensuring resources are bought within the amount allocated in the annual budget.

9. Health and safety

- Staff members will act in accordance with the school's **Science Health and Safety Policy** at all times.
- Accidents and near-misses will be reported following the procedure outlined in the school's **Accident Reporting Procedure Policy**.
  If necessary, a risk assessment will be carried out by teachers before conducting an experiment or undertaking practical activities.
- All staff members will be shown how to correctly use equipment as part of their induction training.

- All pupils will be shown how to correctly use equipment and will be monitored by staff members whilst using equipment.
- All pupils will be made aware of how they are expected to behave, ensuring that they show respect to other people and the environment.
- Pupils are made aware of the personal safety protocols and equipment needed when using different equipment or carrying out different tasks.
- Staff members will be made aware of the COSHH and RIDDOR regulations as part of their induction training and will act in accordance with these whilst undertaking activities.
- Any 'new' experiments or activities which a teacher has not used in the classroom before will be trialled prior to being performed with pupils.

At the beginning of any experiment, the teacher will outline the purpose of the experiment to the class, and all hazards and safety precautions will be thoroughly outlined.

10.Monitoring and review

This policy will be reviewed on an annual basis by the subject leader.

The subject leader will monitor teaching and learning in the subject at St Barnabas and St Paul's school, ensuring that the content of the national curriculum is covered across all phases of pupils' education.

Members of the governing body meet at least annually with the subject leader to review progress in the teaching of Science. Any changes made to the policy will be communicated with staff.

Date Agreed by Governors:
Governor Review Date:

Appendix 1:

1.1

EYFS Statutory Requirements:

By the end of the EYFS, children at the expected level of development will:

- Explore the natural world around them, making observations and drawings pictures of animals and plants
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

Autumn 1	Autumn 2	Spring Term	Summer Term
Body parts, senses and life cycle of human	Seasonal changes- Autumn and Winter	Life cycles of animals Seasonal and environmental changes	Forces and changes to people Exploring materials

1.2

Key Stage 1 – Working Scientifically Statutory Requirements:

During **Years 1 and 2**, pupils will be taught to:

- Ask simple questions and recognise that they can be answered in different ways
- Observe closely, using simple equipment
- Perform simple tests
- Identify and classify
- Use their observations and ideas to suggest answers to questions

Key Stage 2 - Working Scientifically Statutory Requirements:

During **Years 3 and 4**, pupils will be taught to:

- Ask relevant questions and use different types of scientific enquiries to answer these questions, setting up simple practical enquiries, comparative and fair tests.
- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment, including thermometers and data loggers.
- Gather, record, present and classify data in a variety of ways to help answer 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 simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identify differences, similarities or changes related to simple scientific ideas and processes.
- Use straightforward scientific evidence to answer questions or to support their findings.

During **Years 5 and 6**, 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 increasing accuracy and precision, taking repeat reading 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, including conclusions, causal relationships and explanations of the results and the degree of trust in them. This should be in oral and written forms such as displays and other presentations
- Identify scientific evidence that has been used to support or refute ideas/arguments

Programme of Study Statutory Requirements:

Year 1

Plants

Pupils should be taught to:

- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- Identify and describe the basic structure of a variety of common flowering plants, including trees

Animals, including humans:

Pupils should be taught to:

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

Everyday materials:

- Pupils should be taught to:
- Distinguish between an object and the material from which it is made

- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock
- Describe the simple physical properties of a variety of everyday materials
- Compare and group together a variety of everyday materials on the basis of their simple physical properties

Seasonal changes:
Pupils should be taught to:
- Observe changes across the four seasons
- Observe and describe weather associated with the seasons and how day length varies

Year 2

Living things and their habitats
Pupils should be taught to:
- Explore and compare the differences between things that are living, dead and things that have never been alive
- 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
- Identify and name a variety of plants and animals in their habitats, including microhabitats
- 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

Plants
Pupils should be taught to:
- Observe and describe how seeds and bulbs grow into mature plants
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Animals, including humans
Pupils should be taught to:
- Notice that animals, including humans, have offspring which grow into adults
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene

Uses of everyday materials
Pupils should be taught to:
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- Find out how the shapes of solid objects made from some materials can be changes by squashing, bending, twisting and stretching

Year 3

Plants

Pupils should be taught to:

- Identify and describe the functions of different parts of flowering plants: roots, stem/ trunk, leaves and flowers
- Explore the requirement of plants for life and growths (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- Investigate the way in which water is transport within plants
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Animals, including humans

Pupils should be taught to:

- 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
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement

Rocks

Pupils should be taught to:

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock
- Recognise that soils are made from rocks and organic matter

Light

Pupils should be taught to:

- Recognise that they need light in order to see things and that dark is the absence of light
- Notice that light is reflected from surfaces
- Recognise that light from the sun can be dangerous and that they are ways to protect their eyes
- Recognise that shadows are formed when the light from a light source is blocked by an opaque object
- Find patterns in the way that the size of shadows change

Forces and magnets

Pupils should be taught to:

- Compare how things move on different surfaces
- Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance

- Observe how magnets attract or repel each other and attract some materials and not others
- Compare and group together a variety of materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- Describe magnets as having 2 poles
- Predict whether 2 magnets will attract or repel each other, depending on which poles are facing

Year 4

Living things and their habitats

Pupils should be taught to:

- Recognise that living things can be grouped in a variety of ways
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- Recognise that environments can change and that this can sometimes pose dangers to living things

Animals, including humans

Pupils should be taught to:

- Describe the simple functions of the basic parts of the digestive system in humans
- Identify the different types of teeth in humans and their simple functions
- Construct and interpret a variety of food chains, identifying producers, predators and prey

States of matter

Pupils should be taught to:

- Compare and group materials together, according to whether they are solids, liquids or gases
- 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
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Sound

Pupils should be taught to:

- Identify how sounds are made, associating some of them with something vibrating
- Recognise that vibrations from sounds travel through a 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

Electricity

Pupils should be taught to:

- Identify common appliances that run on electricity
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- 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 being good conductors

Year 5

Living things and their habitats

Pupils should be taught to:

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- Describe the life process of reproduction in some plants and animals

Animals, including humans

Pupils should be taught to:

- Describe the changes as humans develop to old age

Properties and changes of materials

Pupils should be taught to:

- 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
- know 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 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

Earth and space

Pupils should 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 explain day and night and the apparent movement of the sun across the sky

Forces

Pupils should be taught to:

- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the 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

Year 6

Living things and their habitats

Pupils should 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 for classifying plants and animals based on specific characteristics

Animals including humans

Pupils should 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 bodies function
- describe the ways in which nutrients and water are transported within animals, including humans

Evolution and inheritance

Pupils should be taught to:

- recognise that living things have changed over time and that fossils provide 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 adaptation may lead to evolution

Light

Pupils should 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
- 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

- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Electricity

Pupils should be taught to:

- associate the brightness of a lamp or the volume of a buzzer with 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

This policy will be reviewed: Spring 1 2025