



Science Policy

2022-2023

St Thomas' CofE Primary Academy

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Statement of intent

In science, at St Thomas' CofE Primary Academy, we provide children with unique opportunities that encourage natural curiosity, sensitivity to the living and non-living environment and fosters an appreciation of our place in the world. Exploring, discovering, investigating and understanding the world around them, pupils understand how major scientific ideas contribute to technological change-impacting on industry, business and medicine and improving our quality of life.

Understanding of key concepts is carefully layered over many years of meticulous planning, and through enquiry-led investigative processes (questioning, predicting, planning, observing, describing, measuring, observing and explaining) our children learn to question and discuss science-based issues that make affect their own lives, the direction of society and the future of the world.

Legal framework

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013
- DfE (2013) 'Science programmes of study: key stages 1 and 2'
- DfE (2021) 'Statutory framework for the early years foundation stage'

This policy operates in conjunction with the following school policies:

- Health and Safety Policy
- COSHH Policy
- Primary Teaching and Learning Policy
- Primary Assessment Policy

Roles and responsibilities

The governing board is responsible for:

- Ensuring a broad and balanced science curriculum is implemented in the school.
- Ensuring the school's science curriculum is accessible to all pupils.

The principal is responsible for:

- The overall implementation of this policy.
- Ensuring the school's science curriculum is implemented consistently.
- Ensuring appropriate resources are allocated to the science curriculum.
- Ensuring all pupils are appropriately supported.
- Appointing a member of staff to lead on the school's approach to teaching science.

The science lead is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for science.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of science, providing support for staff where necessary.
- Organising the deployment of resources and carrying out an annual audit of all science resources.
- Leading staff meetings and providing relevant staff with the appropriate training.
- Advising on the contribution of science to other curriculum areas.

Science teachers are responsible for:

- Acting in accordance with this policy.
- Ensuring that lessons are taught in line with the school's Health and Safety Policy at all times.

- Liaising with the science lead about key topics, resources and support for individual pupils if required.
- Ensuring that all relevant statutory content is covered within the school year.
- Monitoring the progress of pupils in their class and reporting this on an annual basis.
- Reporting any concerns regarding the teaching of the subject to the science lead or a member of the SLT.
- Undertaking any training that is necessary to teach the subject effectively.

The national curriculum

The national curriculum will be followed as a base for all science teaching. At St Thomas', we have refined the curriculum to focus on 'big questions' to enhance pupils' spiritual development linked to the science area being taught. We have identified key knowledge which children should know in each year group. This builds progressively as children move through school (appendix 1-Progression grids)

During the EYFS, in accordance with the 'Statutory framework for the early years foundation stage', focus will be on the key areas of learning which is mostly taught through games and play. The areas of learning are:

- communication and language
- physical development
- personal, social and emotional development
- literacy
- mathematics
- understanding the world
- expressive arts and design

During **EYFS**, pupils will be taught to:

Working scientifically

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Make comments about what they have heard and ask questions to clarify their understanding.
- 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

Plants – How might we describe plants?

Key knowledge for **nursery** pupils:

- Know what a plant is

- Know how to care for a plant
- Describe what happens to a plant over time.

Key knowledge for **reception** pupils:

- Make observations of plants
- Know some names of plants, trees and flowers
- Name and describe different plants, trees, flowers.
- Show some care for their world around them

Animals including humans – What does it mean to be healthy?

Key knowledge for **nursery** pupils:

- Point to different parts of the body when asked.
- Name some body parts
- Describe what happens when they exercise
- Know which foods are considered healthy and unhealthy.
- Describe how they have changed over time.
- Know how to care for living things

Key knowledge for **reception** pupils:

- Identify different parts of their body.
- Have some understanding of healthy food and the need for variety in their diets.
- Be able to show care and concern for living things.
- Know the effects exercise has on their bodies.
- Have some understanding of growth and change.
- Can talk about things they have observed including animals

Living things and habitats – How might we describe plants and animals?

Key knowledge for **nursery** pupils:

- Describe what they can see on picture about the natural world.
- Care for the environment
- Describe about what natural things they can see around them.
- Ask questions about animals, plants and places.

Key knowledge for **reception** pupils:

- Comment and question about the place they live or the natural world.
- Show care and concern for living things and the environment.
- Talk about things they have observed such as plants and animals.
- Notice features of objects in their environment.
- Comment and asks questions about their familiar world.

Materials and states of matter – How might I describe materials?

Key knowledge for **nursery** pupils:

- Describe what objects look and feel like.
- Say if they are natural or made by someone
- Describe ways that materials can be used to make something.

Key knowledge for **reception** pupils:

- Ask questions about the place they live.
- Talk about why things happen and how things work.
- Talk about things they have observed such as natural and found objects.
- Manipulate materials to achieve a planned effect.

Electricity – How might things turn on and off?

Key knowledge for EYFS pupils:

- May have some understanding that objects need electricity to work.
- May understand that a switch will turn something on or off.

Earth, energy, seasons and space – How might the weather change?

Key knowledge for **nursery** pupils:

- Name what the weather is like each day
- Know what we need to wear at different times of the year.
- Make observations and describe what can be seen in different seasons

Key knowledge for **reception** pupils:

- Describe what the weather is like.
- Suggest how the weather will be similar/different at different times of the year and in different countries.
- Name the 4 seasons and say what you may see in each one

Forces and magnets – How might things move?

Key knowledge for **nursery** pupils:

- Understand pushes and pulls to make things move
- Describe how the change the shape of malleable materials.

Key knowledge for **reception** pupils:

- Use pushes and pulls to make things move and describe how they make things stop or change direction.
- Describe how they change the shape of malleable materials.

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

Working scientifically

- 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.
- Gather and record data to help in answering questions.

Year 1 pupils will also be taught to:

Plants – How might plants be the same or different?

Key knowledge:

- Plants grow from seeds/bulbs
- Plants need light and water to grow and survive
- Plants are important for oxygen
- We can eat lots of plants.

Animals, including humans - What are animals like?

Key knowledge:

- There are many different animals with different characteristics.
- Humans and animals are different.
- Animals have senses to help individuals survive. When animals sense things, they are able to respond.
- Animals need food to survive.
- Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy.

Everyday materials- What are the things we use made from?

Key knowledge:

- There are many different materials that have different describable and measurable properties.
- Materials that have similar properties are grouped into metals, rocks, fabrics, wood, plastic and ceramics (including glass).
- The properties of a material determine whether they are suitable for a purpose.
- Observe changes across the four seasons.
- Observe and describe weather associated with the seasons and how day length varies.

Earth, energy, seasons and space – How might we recognise seasons?

Key knowledge:

- Weather can change.
- There are lots of different types of weather: rain, sun, cloud, wind, snow, etc
- Days are longer and hotter in the summer.
- Days are shorter and colder in the winter.
- There are four seasons: spring, summer, autumn, winter.

Year 2 pupils will also be taught to:

Plants – How might seeds turn into plants?

Key knowledge:

- Plants grow from seeds/bulbs.
- Plants need light, water and warmth to grow and survive.
- Flowers make seeds to make more plants (reproduce)
- We need plants to survive (to clean air, to eat)
- We can eat different parts of the plants (leaves, stems, , seeds, fruit)

Animals including humans – How might living things change?

Key knowledge:

- Animals move in order to survive.
- Different animals move in different ways to help them survive.
- Exercise keeps animal's in good condition and increases survival chances.
- All animals eventually die.
- Animals reproduce new animals when they reach maturity.
- Animals grow until maturity and then do not grow any larger

Living things and habitats – Why do different animals live in different places?

Key knowledge:

- Some things are living, some were once living but now dead and some things never lived.
- There is variation between living things.
- Different animals and plants live in different places. Living things are adapted to survive in different habitats.
- Environmental change can affect plants and animals that live there.

Materials and states of matter – How might we choose the best material?

Key knowledge:

- Materials can be changed by physical force (twisting, bending, squashing and stretching)
- Some materials are useful for buildings.

- Other materials are useful for absorbing liquid.
- Some materials are used to stop water.
- Some materials are used because they are flexible.
- Some materials can keep us warm.

Forces and magnets – How can we change how things move?

Key knowledge:

- Pushing and pulling can make things move faster or slower.
- Pushing and pulling can make things move or stop.
- Things can move in different ways.
- Larger masses take bigger pushes and pulls to move or stop them.
- Pushing and pulling can change the shape of things.
- Bigger pushes and pulls have bigger effects.

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

Working scientifically

- Ask relevant questions and use different types of scientific enquiries to answer them.
- Set 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, classify and present 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.

Year 3 pupils will also be taught to:

Plants – Why do some plants have flowers?

Key knowledge:

- Plants are producers, they make their own food.
- Their leaves absorb sunlight and carbon dioxide.
- Plants have roots, which provide support and draw water from the soil.

- Flowering plants have specific adaptations which help it to carry out pollination, fertilisation and seed production.
- Seed dispersal improves a plants chances of successful reproduction.
- Seeds/bulbs require the right conditions to germinate and grow.
- Seeds contain enough food for the plant's initial growth.

Animals including humans – how might we keep our bodies healthy?

Key knowledge:

- Different animals are adapted to eat different foods.
- Many animals have skeletons to support their bodies and protect vital organs.
- Muscles are connected to bones and move them when they contract.
- Movable joints connect bones.

Materials and states of matter – How might rocks be the same or different?

Key knowledge:

- There are different types of rock.
- There are different types of soil.
- Soils change over time.
- Different plants grow in different soils.
- Fossils tell us what has happened before.
- Fossils provide evidence.
- Palaeontologists use fossils to find out about the past.
- Fossils provide evidence that living things have changed over time.

Earth, energy, seasons and space – How are shadows formed?

Key knowledge:

- There must be light for us to see (a source). Without light it is dark.
- We need light to see things even shiny things.
- Transparent materials let light travel through them, and opaque materials don't let light through.
- Beams of light bounce off some materials (reflection).
- Shiny materials reflect light beams better than non-shiny materials.

Forces and magnets – Understanding magnets: How might forces move objects?

Key knowledge:

- Magnets exert attractive and repulsive forces on each other.
- Magnets exert non-contact forces, which work through some materials.
- Magnets exert attractive forces on some materials.
- Magnet forces are affected by magnet strength, object mass, distance from object and object material.

Year 4 pupils will also be taught to:

Animals including humans – Why are food chains important?

Key knowledge:

- Nutrients produced by plants move to primary consumers then to secondary consumers through food chains.
- Construct and interpret a variety of food chains, identifying producers, predators and prey

Animals including humans – Where does all that food go?

Key knowledge:

- Food is broken down by the teeth and further in the stomach and intestines where nutrients go into the blood.
- The blood takes nutrients around the body.
- Different types of teeth do different jobs.
- Animals have teeth to help them eat.

Living things and their habitats – Can we group animals? Are they in danger?

Key knowledge:

- Living things can be divided into groups based upon their characteristics.
- Environmental change affects different habitats differently.
- Different organisms are affected differently by environmental change.
- Different food chains occur in different habitats.
- Human activity significantly affects the environment.

Materials and states of matter – Why are solids, liquids and gases different?

Key knowledge:

- Solids, liquids and gases are described by observable properties.
- Materials can be divided into solids, liquids and gases.
- Heating causes solids to melt into liquids and liquids evaporate into gases.
- Cooling causes gases to condense into liquids and liquids to freeze into solids.
- The temperature at which given substances change state are always the same.

Electricity – How might we use electricity?

Key knowledge:

- A source of electricity (mains or battery) is needed for electrical devices to work.
- Electricity sources push electricity round a circuit
- More batteries will push the electricity round the circuit faster.
- Devices work harder when more electricity goes through them.
- A complete circuit is needed for electricity to flow and devices to work.

- Some materials allow electricity to flow easily and these are called conductors. Materials that don't allow electricity to flow easily are called insulators.

Earth, energy, seasons and space – What is sound and how might it change?

Key knowledge:

- Sound travels from its source in all directions and we hear it when it travels to our ears.
- Sound travel can be blocked and also spreads out as it travels.
- Changing the shape, size and material of an object will change the sound it produces.
- Sound is produced when an object vibrates.
- Sound moves through all materials by making them vibrate.
- Changing the way an object vibrates changes its sound.
- Bigger vibrations produce louder sounds and smaller vibrations produce quieter sounds.

During **Years 5 and 6**, pupils will be taught to:

Working scientifically

- 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 readings 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, in oral and written forms such as displays and other presentations.
- Identify scientific evidence that has been used to support or refute ideas or arguments.

Year 5 pupils will also be taught to:

Animals including humans: How might our bodies change over time?

Key knowledge:

- Different animals mature at different rates and live to different ages.
- Puberty is something we all go through, a process which prepares our bodies for being adults, and reproduction.
- Hormones control these changes, which can be physical and/or emotional.

Living things and their habitats – Do all plants and animals reproduce in the same way?

Key knowledge:

- Different animals mature at different rates and live to different ages.
- Some organisms reproduce sexually where offspring inherit information from both parents.
- Some organisms reproduce asexually by making a copy of a single parent.
- Environmental change can affect how well an organism is suited to its environment.
- Different types of organisms have different lifecycles

Materials and states of matter – How might materials be useful in everyday life?

Key knowledge:

- All matter (including gas) has mass and different properties that make them useful for different jobs.
- Most metals are strong, hard and shiny materials that can be hammered into different shapes without breaking. They are good conductors of heat and electricity and some are magnetic.
- Plastics are materials made from chemicals and are not found in nature. They are strong and non-absorbent. They can be made into any shape by applying heat. Plastics are not magnetic. They are good insulators and don't conduct heat or electricity.
- Glass is made by melting sand and other minerals together at very high temperatures. It is normally transparent and can be made into different shapes. Thick glass can be strong, but thin glass breaks easily.
- Wood comes from trees. It is strong, flexible and long-lasting. Insulator of heat and electricity.
- Fabrics are made from thin fibres woven together. Different fabrics have different properties. They can be elastic, insulating or absorbent.
- Some insulators are better at slowing down the movement of heat than others.
- Solids and liquids will warm up or cool down until they reach the temperature of their surroundings.

Materials and states of matter – How might we sort and separate materials?

Key knowledge:

- When two or more substances are mixed and remain present the mixture can be separated.
- Some changes can be reversed, and some cannot.
- Materials change state by heating and cooling.
- Materials are separated due to a difference in property.
- Filtering lets liquid pass through but not the solid.
- Some materials can be separated by magnetism.
- Evaporation can be used to separate dissolved solids and liquids.

Materials and states of matter - How might we change materials reversibly and irreversibly?

Key knowledge:

- Sometimes mixed substances react to make a new substance. These changes are usually irreversible.

- Heating can sometimes cause materials to change permanently. When this happens, a new substance is made. These changes are reversible.
- Indicators that something new has been made are: the properties of the material are different (colour, state, texture, hardness, smell, temperature)
- If it is not possible to get the material back easily it is likely that something new has been made (irreversible change)

Earth, energy, seasons and space: Sun, Earth & Moon: What is moving and how do we know?

Key knowledge:

- Stars, planets and moons have so much mass they attract other things, including each other due to a force called gravity.
- Gravity works over distance.
- Objects with larger masses exert bigger gravitational forces.
- Objects like planets, moons and stars spin.
- Smaller mass objects like planets orbit large mass objects like stars.
- Stars produce vast amounts of heat and light.
- All other objects are lumps of rock, metal or ice and can be seen because they reflect the light of stars.

Year 6 pupils will also be taught to:

Animals including humans - How might our choices keep our body healthy?

Key knowledge:

- Diet, exercise, drugs and lifestyle choices have both positive and negative impacts on the way our bodies function.
- Some health conditions are caused by deficiencies in our diet e.g. lack of vitamins.
- A healthy diet contains a balanced mix of different types of food and drink highlighted in the 'Eat-well Plate'.
- Fruit/Vegetables are good sources of vitamins, minerals and fibre.
- Carbohydrates are found starchy foods such as potatoes, bread, rice, pasta and cereals and make up just over a third of the food you eat. These are important for giving us energy.
- Dairy and alternatives are good sources of calcium which is important for strong teeth and bones.
- A 'drug' is something that you eat or drink that has an effect on your body. This effect can be good or bad.
- Doctors prescribe drugs (medicines) to people to help them overcome an illness.
- Some drugs that have a bad effect on someone's body and can also be highly addictive.

Animals including humans – How does our heart keep us alive?

Key knowledge:

- The heart pumps blood around the body.

- Oxygen is breathed into the lungs where it is absorbed by the blood.
- Muscles need oxygen to release energy from food to do work.
- Oxygen is taken into the blood in the lungs; the heart pumps the blood through blood vessels to the muscles; the muscles take oxygen and nutrients from the blood.

Animals including humans – What is evolution?

Key knowledge:

- Life cycles have evolved to help organisms survive to adulthood.
- Over time the characteristics that are most suited to the environment become increasingly common
- Organisms best suited to their environment are more likely to survive long enough to reproduce. Organisms are best adapted to reproduce are more likely to do so.
- Organisms reproduce and offspring have similar characteristic patterns.
- Variation exists within a population (and between offspring of some plants).
- Competition exists for resources and mates

Living things and their habitats – How might we classify living things?

Key knowledge:

- Variation exists within a population (and between offspring of some plants).
- Organisms best suited to their environment are more likely to survive long enough to reproduce.
- Organisms are best adapted to reproduce are more likely to do so.
- Organisms reproduce and offspring have similar characteristic patterns.
- Competition exists for resources and mates.

Electricity: How might we vary the effects of electricity?

Key knowledge:

- Batteries are a store of energy. This energy pushes electricity round the circuit. When the battery's energy is gone it stops pushing. Voltage measures the 'push.'
- The greater the current flowing through a device the harder it works.
- Current is how much electricity is flowing round a circuit.
- When current flows through wires heat is released. The greater the current, the more heat is released.

Earth, energy, seasons and space: How and why do shadows change?

Key knowledge:

- Animals see light sources when light travels from the source into their eyes.
- Animals see objects when light is reflected off that object and enters their eyes.
- Light reflects off all objects (unless they are black). Non shiny surfaces scatter the light, so we do not see the beam.

- Light travels in straight lines.

Cross-curricular links

Where possible, the science curriculum will provide opportunities to establish links with other curriculum areas. This includes:

English

- Pupils' writing skills are developed through recording their planning, what they observe and what they found out. Reading VIPER skills are developed through reading like a scientist and interpreting the texts that are read.

Maths

- Pupils use their knowledge and understanding of measurement and data handling, including through recording their findings on charts, tables and graphs.

PSHRE

- Health education is taught as part of the science units about humans, including information about healthy lifestyles, growth, age, and reproduction.

PE

- Healthy lifestyle and the importance of a healthy diet and exercise are taught the PE curriculum.

Music

- Instruments are used throughout the year groups and different ways to create pitch, volume and rhythms are explored.

Teaching and assessment

Lesson planning

Lessons are planned using the progression grids to ensure there is a sequential building of knowledge and reduce cognitive overload. Established curriculum schemes are used to develop a sequence of lessons including the National Oak Academy, Twinkl and snap science. These are adapted to ensure any knowledge gaps are identified, taught and secured.

Throughout the school, science is taught as a discrete lesson making links to other curriculum subjects as appropriate.

Lesson plans will balance visual, auditory and kinaesthetic elements used in teaching, ensuring that all pupils with different learning styles can access the learning experience. All lessons focus on retrieving previous knowledge to apply it to the new teaching through a big question approach.

Long-term planning through knowledge progression grids 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, identifying learning objectives, main learning activities and scaffolding opportunities to support individual pupils. Short-term planning will be used flexibly to reflect the objective of the lesson, the success criteria and the aim of the next lesson, building on medium-term planning and taking into account pupils' needs.

Teaching

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 where possible.

Assessment

Pupils will be assessed and their progression recorded in line with the school's Primary Assessment Policy. Assessment in science will be based upon scientific knowledge and understanding.

Pupils will be assessed continually throughout the year with an assessment taking place at the end of each block. The format of this assessment will depend on the block.

Formative assessment will be carried out informally throughout the year. This will enable teachers to identify pupils' understanding of subjects and inform their immediate lesson planning. The results of end-of-year summative assessments will be passed to relevant members of staff, such as the pupil's next class teacher and the science lead.

Assessment will take various forms, including the following:

- Talking to pupils and asking questions
- Discussing pupils' work with them
- Marking work against learning objectives
- Specific assignments for individual pupils
- Observing practical tasks and activities
- Pupils' self-evaluation of their work
- Classroom tests and formal exams

Parents will be provided with a written report about their child's progress during the Summer term every year. Reports will include information on the pupil's attitude towards science, progress in understanding scientific method and their ability to investigate, and the knowledge levels they have achieved. Verbal reports will be provided at parent-teacher meetings during the Autumn and Spring terms.

Equipment and resources

Science resources for each unit are stored in the science cupboard in the KS2 corridor. Classes may also have their own resources stored in the classrooms.

The science lead is responsible for ensuring that all resources and equipment are sufficiently maintained, and for maintaining an inventory of resources. The science lead will carry out an annual audit of the science resources and will submit a wishlist to purchase any consumables when necessary. Any equipment or resources which are a cause of concern will be removed from science cupboard or classrooms immediately.

Equipment will be checked by the relevant class teacher prior to each use and any damages or defects will be reported to the science lead immediately. Staff will also inform the science lead of any changes regarding science resources, such as when supplies of resources have run out or new resources are required. The science lead is responsible for negotiating requests from staff and ensuring resources are bought within the amount allocated in the annual budget.

Health and safety

Staff will act in accordance with the school's Health and Safety Policy at all times.

A risk assessment will be carried out by teachers before higher-risk science-related activities, e.g. conducting an experiment or undertaking practical activities.

All science teachers and other relevant staff will be shown how to correctly use science equipment as part of their induction training. Staff will also 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.

All pupils will be shown how to correctly use equipment prior to use and will be monitored by staff whilst using equipment. Pupils will also be made aware of how they are expected to behave, ensuring that they show respect to other people and the environment, and the personal safety protocols and protective equipment needed when using equipment or carrying out tasks, e.g. goggles.

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

activities not previously conducted by the science teacher will be trialled prior to being undertaken with pupils.

Accidents and near-misses will be reported following the school's reporting procedures.

Equal opportunities

All pupils will be given equal access to the entire science curriculum, including practical experiments. Where required, pupils with SEND will be provided with additional support in order to fully engage with the science curriculum.

Where it is inappropriate for a pupil to participate in a specific lesson because of reasons related to any protected characteristics, the lesson will be adapted to meet the pupil's needs and alternative arrangements involving extra support will be provided where necessary. If pupils access an alternative provision, opportunities will be provided to work scientifically and develop investigative skills.

The school aims to provide more academically able pupils with the opportunity to extend their scientific thinking through extension activities such as problem solving, investigative work and scientific research.

Monitoring and review

This policy will be reviewed on an annual basis by the science lead, in collaboration with the principal. The next scheduled review for this policy is July 2022.

Any changes made to this policy will be communicated to science teachers and other relevant staff.