



You are the light of the world, let your light shine.

MATTHEW 5:14-16

Science Policy

Whaddon Church of England School
2025-2026

This school is committed to safeguarding children and promoting the welfare of children and young people, it expects all staff and volunteers to share this commitment.

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Reviewed by: Sarah Prior

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Vision

At Whaddon School we want every member of our school community to shine; personally, academically, and spiritually.

Our vision is upheld by our values, Compassion, Wisdom and Endurance which encompass: forgiveness, kindness, respect, advocacy, justice and courage.

As such, we have high expectations for all of our learners through an ambitious, engaging curriculum and inspiring experiences. These carefully planned and inclusive opportunities not only enable our pupils to be their best selves, but ensure that they are equipped for the next steps in their learning journey and life in 21st Century Britain with a curiosity for learning for life.

We challenge each other, to be our best, through actions, choices and words, so that we can all shine.

Aims

The aims of this policy are to ensure that high expectations of Science are consistent across the school and that this enables all of our learners to produce work that reflects their high levels of engagement, understanding and skill. We wish to create lifelong learners with positive views of the Science's and the knowledge that they can all be Scientists. This document should support you in understanding our ethos and dedication to Science and how it should look in our school.

Responsibilities

Our vision provides the bedrock of constructive challenge at all levels of our school community. Children, teachers, supporting adults, parents and governors all have a role to play in upholding the policy, shaping it and living it through our best endeavours.

Teachers will ensure that the children understand the purpose of Science, in line with the curriculum. Be confident in the pedagogy, teaching and assessing. Inspire and engage learners by providing a robust and diverse curriculum. Give opportunities to children to further learning and understanding through questioning and additional activities (including homework and Science events). Provide age appropriate vocabulary. Teachers will offer support and encourage exploration of themes, allowing time to embed and practice learning. They will introduce a variety of scientists and demonstrate how to evidence learning- showing how to record data and findings, assessing and concluding as appropriate.

Supporting adults will encourage children to experiment safely and record findings accurately. Provide opportunities in addition to in class studies to further embed scientific knowledge, including pre-teaching vocabulary or interventions to ensure no learning is missed (as informed by teachers). Support children to voice their ideas and discuss findings, modelling appropriate questions to ask to further the learning. Demonstrate positive learning behaviours whilst supporting with investigations and experiments.

Children will engage with the curriculum safely, using a wide range of resources, applying subject knowledge and vocabulary in conversations. Feel confident in expressing their thoughts and

questions, at appropriate opportunities. Be able to discuss their learning and its intent with peers in and outside of school. Have confidence in their knowledge and technical skills and be reflective about their learning. Apply their learning across the curriculum.

Parents will support their child to embed the skills that they have learned in school. Give opportunities for their child to question, experiment and form hypotheses, utilising their knowledge and skills. Give children opportunities to engage with, discuss and take part in scientific study; utilise technology, including events or visits, internal and external.

Governors will ensure that the curriculum offered by the school is engaging, progressive in skill and knowledge and in line with our distinctive Christian Vision. They will visit regularly to ensure teachers are fulfilling expectations and to engage with the pupils in their learning.

Expectations

- Work should be either photographed and recorded or written and collected in Science books.
- There should be a clear progress of learning across each unit, detailed in self-assessment documents.
- Children should be able to discuss and explain their learning, detailing specific lesson content and naming the unit (in age appropriate language).
- Science learning should be regularly monitored through assessment and adapted to meet the needs of the group.
- Provision should be adapted to ensure it is accessible, with evidence of support and challenge.
- Teachers should feel empowered to deliver learning or access guidance and training if needed.
- Students will engage in the learning which they will find interesting and inspiring.
- All curriculum areas will be covered and there should be opportunities to explore learning and embed knowledge in cross-curricular learning.
- Children should be aware of a variety of Scientists and opportunities in Science as part of wider cultural capital.

Intent

In line with our values of Wisdom, Compassion and Endurance, children will feel empowered by the Science offer at Whaddon School, being given ample opportunity to “let their light shine!”. We believe that Whaddon children aspire to be their best through the curriculum learning and further discussion. We allow students to explore and utilise a variety of tools and resources, through experiment, inquiry and activities which develop their Scientific knowledge and skills, gaining confidence in expressing their thoughts and questions independently. We wish for each and every child to leave Science lessons with new vocabulary, having been introduced to a diverse range of Scientists in their studies to ground the learning, and will be given opportunities to explore their skills across the curriculum. Each child should leave Whaddon Church of England School feeling able to shine their light in Science!

The curriculum aims for pupils to develop a complex knowledge of biology, chemistry and physics but also adopt a broad range of skills in working scientifically and beyond. The scheme of work is inclusive and meaningful so all pupils may experience the joy of science and make associations

between their science learning and their lives outside the classroom. Studying science allows pupils to appreciate how new knowledge and skills can be fundamental to solving arising global challenges. The curriculum aims to encourage critical thinking and empower pupils to question the 'hows and whys' of the world around them.

Implementation

Children will follow the Kapow scheme of work to ensure clear progression of skills. Teachers will utilise given CPD (and be aided with additional CPD if requested) to ensure they are confident in the delivery of this important learning. Children will be encouraged and inspired by the curriculum which will empower them to explore independently. Teachers will give children opportunities across the curriculum to ensure that their learning is embedded and their demonstration of prior learning is rewarded and reinforced. Children will be given opportunities to reflect on and share their learning to remain proud and determined. Teachers will assess and monitor learning to ensure that progress is being made in children's knowledge and skills. Subject leaders will use collected data to ensure the scheme and curriculum is effectively adapted and fit for purpose, allowing children external and additional opportunities to explore art and display their own. Subject leaders will monitor progress and support teachers (and through them, students) as needed.

Impact

The expected impact of following the Kapow Primary Science scheme of work is that pupils will develop early scientific thinking skills through hands-on exploration and sensory experiences in EYFS (Reception). Develop a body of foundational knowledge for the biology topics in the National curriculum (Plants; Animals, including humans; Living things and their habitats; and Evolution and inheritance) for the chemistry topics (Everyday materials; Uses of everyday materials; Properties and changes of materials; States of matter; and Rocks) and for physics topics (Seasonal changes; Forces and magnets; Sound; Light; Electricity; and Earth and space). They should be able to evaluate and identify the methods that 'real world' scientists use to develop and answer scientific questions, identify and use equipment effectively to accurately gather, measure and record data. Be able to display and convey data in a variety of ways, including graphs. Analyse data to identify, classify, group and find patterns. Use evidence to formulate explanations and conclusions. Demonstrate scientific literacy through presenting concepts and communicating ideas using scientific vocabulary. Understand the importance of resilience and a growth mindset, particularly in reference to scientific enquiry. Meet the end of key stage expectations outlined in the National curriculum for science. We will utilise appropriate assessments to ensure that this impact is measurable.

SEN

Whaddon CofE School has a strong ethos of inclusion and believes that every child should be given equal access and opportunity to "shine their light"! We do this through:

- Differentiated activities: Tasks are adjusted to meet the needs of all learners, including providing extension activities for more able students.
- Inclusive environment: Teachers proactively plan to minimize barriers to learning and participation.

- Adaptive learning: Lessons are planned with differentiation in mind, often through medium-term plans.
- Pre-teaching: Students may be given interventions to bridge gaps in knowledge before a lesson begins.
- Varied learning styles: The policy supports the use of different types of activities to cater to diverse learning styles.
- Additional support: This can include the provision of extra adults or specific one-on-one help.
- Reasonable adjustments: Modifications are made to tasks and the level of challenge to ensure access.
- Parallel activities: Students with SEN may work on a different activity that still meets the same learning objectives.
- Alternative approaches: This could involve using a computer simulation instead of physical equipment.
- Flexible grouping: Grouping is based on students' strengths and weaknesses to ensure everyone can participate actively.
- Role assignment: Clear roles are assigned in group work to provide structure and a sense of purpose.
- Teaching social skills: Skills for cooperation and group interaction may be taught discretely.
- Resource management: How resources are organized and made available to students is carefully considered.
- Manageable steps: Instructions are broken down into manageable steps and presented in different ways (e.g., diagrams, checklists).

This range of support, applied as needed to any student, alongside regular assessment of knowledge and learning, informs our planning which is adapted to support and challenge a range of needs, leading to good progress across the board for our learners.

Assessment

In Science we use a range of assessment, including formative assessment for ongoing learning, summative assessment at the end of topics or key stages, and assessment for learning to inform teaching and improve student outcomes. The Kapow scheme end of unit assessments help us to understand what gaps need filling and data is passed on to best support planning and learning opportunities for children going forward. There are regular reviews of our subject data and discussions amongst staff to ensure that expected progress is made by our pupils. We also utilise methods in class such as regular observation and questioning by teachers, subject leads, governors to ensure the curriculum is being followed.

Monitoring and Leadership

Monitoring of this subject is undertaken by the subject lead, allocated governor and headteacher. The goal of this monitoring is to ensure that teachers are delivering the curriculum as anticipated and directed, consistently, across the school. This should ensure that all children have equality of opportunity, a streamlined progression of skills and access to an appropriate level of learning and support. Monitoring processes include (but are not limited to) pupil voice, where students share

their opinions/thoughts on their learning, book looks, where any recorded work is analysed and compared, focussing on adaptations (support and challenge for pupils) and presentation in line with policy. Also, learning walks or lesson observations where subject leaders focus on the children's learning and the teacher's delivery of the curriculum. This enables subject leaders to direct appropriate professional development to best support staff across the school and also develop and adapt the curriculum to ensure progress.

The Subject Leads for Science are Teacher Read & Mrs Prior, the Governor in charge is Anne, for any curriculum questions you should direct correspondence to these individuals in the first instance and the Headteacher (Sarah Prior) if no further contact is received. You should direct queries to the office in regard to these questions.

Cross-curricular Opportunities

Primary Science offers many cross-curricular opportunities, particularly linking with Maths through measurement and data analysis, English through storytelling, reading and scientific writing, Art & Design through illustration and diagram, and DT through brief's links to our environments and the effects and purposes of objects designed. Other connections include History, by exploring the development of scientific ideas and Geography by studying the natural world and social implications. Our scheme offers a range of opportunities in this regard, and time is taken across topics to discuss and help embed learning that has been done. Physical Education (PE) is covered in our Scientific discussions about how the body works and reinforced in this learning. Music is explored in more depth heading into KS2, exploring how ears work, how sounds are made and experimenting with vibrations. Personal, Social, and Health Education (PSHE) is evident across the curriculum as children build resilience and use science topics to discuss broader themes, especially social impacts and understanding about minorities in the Science's.

Cultural Capital, Inclusion, Diversity & Equity

At Whaddon Church of England School, we value, nurture and celebrate the skills and talents of every child. Our broad and rich curriculum is aspirational, engaging and inclusive.

We strive to enable all children to achieve their best and optimise their potential through high-quality teaching, careful planning - in line with developmental stage and interests of cohorts - removal of barriers in order to fully access the curriculum e.g. writing frames, visual prompts, adapted resources and alternative methods of recording; across the curriculum.

Our carefully adapted teaching, planning and learning opportunities are designed to reduce, and ultimately remove gaps between disadvantaged and vulnerable learners and their peers.

Our commitment to engaging, inspiring and equipping all learners with the skills and knowledge they require to be successful in their next steps and life is at the heart of our curriculum intent and fosters the implementation of our curriculum. This ensures equality of opportunity and a broad and rich provision, for all learners, in a personalised way.

Careful consideration is afforded to the broad and diverse offer interwoven throughout our curriculum, reflecting our multi-cultural, multi-faith school community and ensuring quality, first-

hand experiences are presented in a multitude of ways. This enables full participation, access and maximum engagement.

All of our educational visits are fully risk assessed and planned, so that every child may access and enjoy these enriching opportunities, ensuring meaningful and memorable experiences which support deeper learning and understanding.

Parent Advice

Children will be provided opportunity to demonstrate and utilise skills in homework's and in further/external learning throughout the year.

Parents and carers should consider opportunities to further embed their children's learning, through utilising key vocabulary, observing and noting the world around them and adding explanation and (age-appropriate) detail to Science noticed around them. If parents are concerned about the information they are able to share, they should discuss with their teacher or subject lead. Teachers may ask you to pre-teach, learn, research or collect data or objects in preparation for learning, this will help children to further discuss and engage with the learning and new knowledge at home.

Utilise the long-term plans available on the website to tie your home learning, any kits you buy, trips or travels you do, experiments you experience, to your child's current learning.

If guardians would like inspiration for extra-curricular activities to support children in this area, including trips, visits, clubs and activities, they should seek to contact the school who can provide this. This is also permissible if adults need additional support to demonstrate skills or require access to resources they may be otherwise unable to offer in the home environment.

We are excited to support children to become the Scientists that we know they are and that they want to grow into and are committed to building their confidence across the curriculum.