



Science Policy 2022-2025

Reviewed every 3 years by the Curriculum and Standards Committee

First reviewed: November 2022

Signed Jenny Darmanin Chair of committee

Signed Penny Lyall Headteacher

This policy should be read in conjunction with the following policies:

- Curriculum policy
- Early Years policy
- Assessment policy
- Behaviour policy
- SEND policy
- Teaching and Learning policy
- Marking and Feedback policy
- Safeguarding & Child Protection policy

Safeguarding statement of intent:

Safeguarding all our children is of paramount importance to us therefore, all necessary risk assessments are carried out prior to any activity. Enhanced DBS checks are carried out when recruiting new staff or volunteers. When welcoming visitors we check whether they have a DBS and carefully monitor their contact with children according to the regulated activity rules in the DBS guidelines. We are a “Safer School” and at least one member of staff and governors who are involved in the recruitment process have attended “Safer Recruitment Training.” New staff are made aware of all the related Safeguarding documents including the Child Protection policy as part of the induction process and all staff receive Child Protection Awareness training regularly.

Whole School Curriculum Intent

At Hodnet Primary School, we endeavour to provide a broad and balanced, but flexible, curriculum which meets the needs of our children, and enables every child to fulfil their potential. We pride ourselves on our ability to tailor our curriculum to the interests and needs of our children and involve the children in their own learning as much as possible. Our curriculum reflects our school aims for every child; encouraging positive relationships based upon mutual trust and respect whilst maintaining a 'can do' strive for success attitude. Our ambitious curriculum has been designed to follow the statutory requirements for all children from the Early Years Foundation Stage and the National Curriculum. We ensure that children have the opportunity to experience the curriculum and express themselves as an individual.

The key principles behind our [curriculum design](#) are based on these wishes for our children:

To be happy, respectful and kind

To be confident with a strong sense of self-belief

To be resilient

To be excited and inspired by learning

To be an independent learner and a creative thinker

To have high aspirations

To be creative

To have eyes open to a world beyond their immediate surroundings

To be an effective communicator

To have the knowledge and skills they need to succeed

Science curriculum mission statement.

Science is the study of the physical world around us. At Hodnet school we encourage children to be inquisitive about the world around them. We aim to give every child a broad and balanced Science curriculum which enables them to confidently explore and discover what is around them so that they have a deeper understanding of the world we live in. Through direct knowledge teaching, observations and physical experiments children can learn and form ideas about their world. At Hodnet we want our children to love science and to understand that anyone can be a scientist. We want children to aim high and strive to achieve their scientific ambitions.

Science Curriculum Implementation

We expose our children to enriching experiences, immersing them in progressive knowledge and skills and equipping them with personal characteristics required to succeed in life.

We organise our learning opportunities into a themed based approach on a two year rolling programme. Our themes are broad to enable many learning opportunities to link within the topic.

CYCLE A	Autumn	Spring	Summer
KS1	Castle Adventures	Exciting Journeys	I need a Hero!
LKS2	Stone Age to Iron Age	Europe	Ancient Egypt
UKS2	To infinity and Beyond	WWII	Globe Trotting

CYCLE B	Autumn	Spring	Summer
KS1	London Adventures	Amazing Animals	Spectacular Seashore
LKS2	Made in Shropshire	Roman Invasion	Mighty Mountains
UKS2	Glorious Greeks and More! <i>from 2023 onwards</i>	The magic of the Rainforest	Invaders and Settlers <i>from 2023 onwards</i>

Science is taught in single age year groups as per our year group classes and fits in with the above topics where appropriate. Our long-term plan for Science allows many opportunities for revising and revisiting previously taught units, especially in KS1 and LKS2.

Science long term plan years 1 – 4

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	Plants Seasonal changes	Everyday materials	Plants Seasonal changes	Animals Humans	Plants Seasonal changes	Animals Humans
2	Plants	Uses of everyday materials	Plants Living things and their habitats	Animals	Plants Living things and their habitats	Humans
3	Plants Animals including humans - nutrition	Rocks	Plants Animals including humans - movement	Light	Plants – <u>main focus</u>	Forces and Magnets
4	States of Matter	Animals including humans – teeth	Sound	Living things and their habitats and food chains	Animals including humans – full digestive system	Electricity

Cycle A	Topic	Science Y5	Science Y6
Autumn 1	Infinity and Beyond	Y5 Earth and space	Y5 Earth and space
Autumn 2		Y5 Forces	Y6 Evolution and inheritance
Spring 1	WW2	Y5 Properties and changes of materials	Y6 Animals including humans
Spring 2		Yr6 Electricity	RSE/PSHE
Summer 1	Around the World in 80 Days	Y5 living things and their habitats	Year 6 Living things and their habitats
Summer 2		Y5 Animals, including humans PSHE RSE	Yr 6 Light

Cycle B	Topic	Science Y5	Science Y6
Autumn 1	Glorious Greeks and More!	Y5 Properties and changes of materials	Y6 Animals including humans
Autumn 2		Y6 Electricity	Y6 Evolution and inheritance
Spring 1	Rainforest	Y5 Living things and their habitats	Y5 and Y6 Living things and their habitats
Spring 2		PSHE RSE	RSE
Summer 1	Invaders and Settlers	Y5 Forces	Y6 Light
Summer 2		Y5 Animals, including humans	PSHE – Drugs

Teachers at Hodnet are passionate about excellent Science teaching and the importance of Science as a subject in today's world. Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of Science involves the following:

- As a school we follow and teach to the national curriculum objectives for Science for both knowledge and working scientifically.
- Science is taught weekly in all year groups for a minimum of two hours per week.
- Science lessons are a mixture of direct knowledge teaching with related activities and practical work to back up the knowledge children have gained.
- Lessons are planned in detail by staff to show progression and depth throughout a unit.
- Inspiration and ideas for science lessons comes from many different areas which are researched by the science co-ordinator and shared with staff on a regular basis.
- Progression in knowledge and working scientifically skills is tracked throughout the years using the PLAN progression in knowledge and PLAN progression in working scientifically documents.
- Lessons build upon the learning and skill development of the previous years.
- Working scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's time in school.
- New and important scientific vocabulary is displayed within the classroom and introduced through direct teaching.
- Teachers demonstrate how to use scientific equipment in order to embed scientific understanding.
- Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning whenever possible. This is done to a high standard in EYFS and KS1 using forest schools.
- Children are offered a range of activities, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class.
- Regular events such as science weeks allow children to come off timetable and apply the knowledge and skills they have learnt. These events also often involve families and the wider community.

Curriculum Impact

We measure the impact of our curriculum intent by reviewing what we hope to achieve against what we deliver and monitoring that alongside our curriculum aims.

Our Science curriculum is high quality and well thought out with opportunities for revisiting and revising key learning. It is also planned to demonstrate progression through the years. If children are keeping up with the curriculum they are deemed to be making good progress. In addition we measure the impact of our curriculum through the following methods:

- We can see the success of our science teaching in our books which shows clear progression in knowledge throughout a unit of work from beginning to end.
- We can also see how many children are hitting 'expected' in science through analysis of our tapestry data.
- End of KS2 data also tells us how many children are 'expected' in science at the end of their primary school experience.

Curriculum sparkles!

At Hodnet we encompass the key drivers of Cultural Capital by ensuring our curriculum has that bit of extra sparkle by including the following enrichment opportunities:

Opportunities linked to Science are highlighted.

	Weekly magic!	Termly specials!	Visits/visitors	One offs	Extra bits
EYFS	<ul style="list-style-type: none"> • Letter sound learning through themed days/events • Forest Schools • Gardening • Outdoor / physical Maths • Class Library • Picture news 	<ul style="list-style-type: none"> • Curriculum weeks x3 (2021/22 mental health, music, RE/cultural) • Church celebration / concert • Music workshops • Curriculum assembly 	<ul style="list-style-type: none"> • Farm • Castle • New baby • Library • Hodnet Hall • Fire station • Tractor in school • Pets / animals • Dentist visit 	<ul style="list-style-type: none"> • Helicopter STEM projects • RAF projects/garden projects • Sports day in house teams • Panto MD 	<ul style="list-style-type: none"> • Diwali party • Chinese New Year celebration • Birthday celebrations • Nativity performance • Science week annually.
KS1	<ul style="list-style-type: none"> • Forest Schools • Outdoor Maths • Daily run • Music lessons (optional) • Picture news 	<ul style="list-style-type: none"> • Curriculum weeks x3 (2021/22 mental health, music, RE/cultural) • Church celebration / concert • Music workshops • Curriculum assembly 	<ul style="list-style-type: none"> • Local science visit • Chester Zoo • London drama workshop • Castle • Aquarium • Seaside/beach • Shrewsbury Fire station • Cosford air museum • Dentist visit 	<ul style="list-style-type: none"> • Helicopter STEM projects • Shropshire Sings/choir • Selected inter schools sports competitions • RAF projects/garden projects • Sports day in house teams • Panto MD 	<ul style="list-style-type: none"> • Drama and visitors, dress up days • Nativity performance • Scootability • Science week annually.
LKS2	<ul style="list-style-type: none"> • Daily run • Music lessons (optional) • Recorder • TTRS • Ed Shed • Picture news 	<ul style="list-style-type: none"> • Curriculum weeks x3 (2021/22 mental health, music, RE/cultural) • Church celebration / concert • Curriculum assembly 	<ul style="list-style-type: none"> • Shrewsbury museum • Shrewsbury Darwin town walk • Shropshire Hills discovery centre • Anglo Saxon workshop • Roman Fort • Cadbury World 	<ul style="list-style-type: none"> • Helicopter STEM projects • Shropshire Sings/choir • Swimming • Multiple inter schools sports competitions • RAF projects/garden projects • Sports day in house teams 	<ul style="list-style-type: none"> • History visitors, dress up days • Play / performance eg, Joseph or Aladdin • Stepping Out road safety • Fire Officer Safety talks • NSPCC pants • Science week annually.

			<ul style="list-style-type: none"> • Severn Trent Water • Birmingham Science Museum 	<ul style="list-style-type: none"> • Panto MD 	
UKS2	<ul style="list-style-type: none"> • Daily run • TTRS duels and competitions • House point collectors – house captains • Pupil responsibilities • Music lessons (optional) • Newsround • Picture news 	<ul style="list-style-type: none"> • Curriculum weeks x3 (2021/22 mental health, music, RE/cultural) • Church celebration / concert 	<ul style="list-style-type: none"> • Chester Zoo rainforests • Science museum • Chester Roman fort • Hodnet Hall • Space science visit • Safety scene day • Western Park/Cosford 	<ul style="list-style-type: none"> • Helicopter STEM projects • London trip • School sleepover stargazing experiences • Fly to the line RAF 100 / STEM projects • Shropshire Sings/choir • Swimming gala • Multiple inter schools sports competitions • RAF projects/garden projects • Sports day in house teams • Panto MD 	<ul style="list-style-type: none"> • Play / performance eg, Joseph or Aladdin • History visitors, dress up days • Oakerwood Residential trip. 1 week. • Bikeability programme • CPR first aid • NSPCC pants, stay safe speak out • Science week annually.