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Our school curriculum comprises all the learning and other experiences we offer our pupils. Our curriculum includes:

- the National Curriculum,
- extra-curricular activities which enrich the children's experience
- the "hidden" curriculum, which focuses on what children learn from the way they are treated and how they are expected to behave.

Structure

In order to achieve our aims, Vale School will work in collaboration with pupils, parents and the community to provide a curriculum which is:

- broad and balanced
- flexible to develop pupils' knowledge, skills and understanding
- appropriate to their ages and abilities, regardless of their gender, ethnic or social background

Early Years

In our Early Years classes we provide children with a wide range of planned activities and experiences which help them to develop and make progress towards meeting the Early Learning Goals. We provide a learning environment that is outstanding, providing children with a rich and stimulating place to play and learn, both inside and out.

The Early Learning Goals establish expectations for children to reach by the end of the Foundation Stage. The curriculum for the Foundation Stage is organised into seven areas of learning:

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

Key Stage 1 & 2 (Years 1 - 6)

Our curriculum in Years 1 to 6 fully satisfies the requirements of legislation relating to the National Curriculum and religious education (RE), ensuring that sufficient time is allowed for all aspects of the curriculum and for the development of essential skills; especially English, Maths, Science and the use of information technology.

At Key Stages 1 and 2 all pupils study the following subjects as part of the National Curriculum:

	Key stage 1	Key stage 2
Age	5-7	7-11
Year groups	1-2	3-6
CORE SUBJECTS		
English	✓	✓
Mathematics	✓	✓
Science	✓	✓
FOUNDATION SUBJECTS		
Art and design	✓	✓
Computing	✓	✓
Design and technology	✓	✓
Languages (Spanish)	✓	✓
Geography	✓	✓
History	✓	✓
Music	✓	✓
Physical education	✓	✓
PSHE (including relationships & sex education)	✓	✓
Religious education	✓	✓

Parents have a right to withdraw their children from aspects of sex and relationships education and/or R.E. Where parents choose to exercise this right, the school will discuss with them alternative work for the pupil. Such arrangements should not require the school to deploy additional resources.

Our curriculum for all pupils at Vale School:

- promotes pupils' self-esteem and challenges them to achieve the highest standards, taking account of ability and aptitude;
- offers opportunities to assess the progress and attainment of each pupil to determine whether learning objectives and any agreed targets have been achieved and what should be the next steps in learning;
- includes a means of recording the progress and attainment of each pupil and reporting these to parents and pupils;
- prepares pupils for the responsibilities and opportunities that arise throughout life in a democratic, multicultural and technological society;
- extends knowledge, experience, imagination and understanding in ways which develop creative, critical and analytical capabilities combined with an awareness of moral values and a capacity for the enjoyment of learning;
- develops positive attitudes and qualities through spiritual awareness and aesthetic appreciation;
- fosters respect for the environment and an understanding of the ways in which human activity can affect the local, regional, national and global environment;
- promotes equality of opportunity, develops understanding of and respect for the rights and views of others and emphasises the value of personal relationships based on mutual respect;
- promotes the importance of healthy living;
- works in partnership with the family and local community, leading to an appreciation of the value of being a responsible citizen;
- prepares pupils for the next stage of learning;
- promotes pupils' understanding of their roles as members of the school.

Planning & Assessment

The [Whole School Curriculum Document](#) will be used as the basis for all planning. The [Curriculum Overview by Year Group](#) document will be used as an overview of each theme across the year

For English and Maths, weekly plans are used that link to our medium term plans. Science and Foundation Subjects are planned using our Unit Plan format.

A weekly timetable identifying what will be taught each session, linked to Medium Term Plans is created before the start of each week.

Learning Objectives should be:

- Manageable - Can it be learnt in a lesson or short sequence of lessons?
- Measurable - Can it be measured at the end of the unit?
- Made first - The objective comes first, then the activity?
- Most important - Objectives should focus on what is most important as the next step on the journey

Unit Plans

Vale Unit Plans include the following:

- What teacher's need to know to be able to teach the unit of work
- National Curriculum requirements linked to this unit

- Prior knowledge pupils have already encountered in previous years (including prior vocabulary, skills, concepts and knowledge taught)
- Key Vocabulary, Skills and Concepts to be included in the unit of work
- An outline of the content of the lessons
- Assessment opportunities with exemplars of children’s work
- Knowledge Organisers to both support the teacher and pupils in identifying the key knowledge to be acquired.

Knowledge Organisers

An A4 summary sheet will be used by Teachers and Pupils in subjects to ensure key content is taught, learnt and understood.

These could include:

- Key dates and events
- Key Facts/Knowledge
- Key people
- Quotes
- Key Vocab and language with definitions

Edward Jenner - Knowledge Organiser

Date of Birth: 17 May, 1749

Date of Death: 26 January, 1823

"Saved more lives than the work of any other human."



Timeline	Event
17.5.1749	Born in Berkeley, Gloucestershire. Showed an early interest in medicine and natural history. Was fascinated and horrified by smallpox as a child.
1760	Aged 11, Jenner began training as a doctor before completing his studies in London under surgeon, John Hunter, who inspired him and encouraged him to seek new discoveries. See quotation.
1773	Jenner returned to Berkeley as a General Practitioner. Continued to be interested in new developments in medical science.
1788	He Married Catherine Kingscote and had several children. Observed that milkmaids who contracted cowpox did not contract smallpox. Developed a theory that inoculating humans with cowpox virus could protect them from smallpox.
1796	Tested his theory on 8-year old James Phipps - inoculating him with pus from a milkmaid's cowpox blisters. When exposed to smallpox, Phipps proved resistant.
1798	Jenner tested his theory on another 23 subjects including his own 11-month old child. Test results published and Jenner coined the word vaccine from the Latin word 'vacca' meaning cow. Jenner was largely ridiculed. Jenner devoted the rest of his life to promoting vaccinations to eradicate smallpox. Critics mocked him! Jenner continued to work on his vaccine and became famous.
1802	Satirical cartoon published - people with cow's heads!
26.1.1823	Jenner died after suffering a stroke.
1840	17 years later, the Government offers free cowpox inoculations.
1979	World Health Organisation (WHO) declared smallpox extinct.

Key Vocabulary	
Vaccinate	Treat with a vaccine to produce immunity.
Smallpox	Most feared disease
General Practitioner	A doctor who treats a wide variety of illnesses
Disease	A disorder that has specific symptoms
Medicine	The science and practice of preventing disease
Cowpox	An infectious virus
Inoculation	Injecting a material for protection

Quotations
"The father of immunology"
"Don't try, think." John Hunter
Smallpox - "the most dreadful scourge of the human species." Edward Jenner

Assessment

All assessment data can be recorded on Target Tracker at any time, but must be recorded by the agreed dates each year.

Rationale

Assessment is a continuous process which is integral to teaching and learning allowing children to reach their true potential. It should be incorporated systematically into teaching strategies in order to promote better than expected progress for individuals, groups and cohorts. At Vale School, we use the National Curriculum as a starting point for all of the teaching and learning experiences that we provide for our children.

Aims

- Monitor and record the attainment and progress of individuals, groups and cohorts.
- Use attainment and progress information to guide teachers' planning, strategies and use of resources and plan intervention.
- Inform parents and the Governing Body about progress and attainment.
- Ensure a consistent approach to measure progress towards and against national standards.
- Enable pupils to reflect on their own progress, understand their strengths and identify what they need to do to improve.

Forms of Assessment

In-school Formative Assessment

This is the ongoing, day-to-day assessment which is carried out by teachers and is key to effective classroom practice. Learning outcomes are shared with pupils and they play an important role through self assessment of their own learning. Formative assessment is used by teachers to inform planning, resources and support in order for all children to progress.

At Vale School, pupils and teachers carry out 'Assessment for Learning' activities which identify any gaps between where a child currently is in their learning, and where they need to be.

Children learn best when:

- they understand clearly what they are trying to learn, and what is expected of them
- they are given feedback (by word of mouth, marking etc.) about the quality of their work
- they are given advice about how to go about making improvements
- they are fully involved in deciding what needs to be done next, and who can give them help if they need it

Teachers use 'learning objectives' and 'success criteria' in the classroom which are designed to allow the children to understand what they are learning and how they can achieve success in every task.

For example, in Year 1 the children might have the following learning objective:

To write sentences.

They may then have the following success criteria for this writing task:

- I will start every sentence with a capital letter
- I will leave a finger space between words
- I will read through my writing to make sure it makes sense.

Sometimes the children are encouraged to create their own success criteria which may be linked to targets they know they need to work on. E.g. I must use the correct punctuation at the end of my sentences.

These success criteria are not a simple fix-it list, but aspects of the task the child needs to focus on. When marking the children's work, the teacher will refer back to the Learning Objective of the lesson, the success criteria and sometimes to a specific target a child might be working on.

As a school we also use highlighters and different coloured pens to help the children identify where they have been successful and where they need to improve.

- Pink is used to show success - **tickled pink**
- Green to show areas for improvement - **green for growth**

Children also use red editing pens to improve their work and in response to teachers feedback.

Engaging children in their own learning process using Assessment for Learning is also a key factor in raising children's attainment. The children are encouraged to assess their own work against the success criteria and also collaborate with a partner to improve their work.

In-School Summative Assessment

Children are assessed periodically and attainment data is recorded on Target Tracker. A range of materials are used to support teachers with accurate teacher assessment judgements. These assessments are carried out throughout the year and are used to monitor the performance of individuals, groups and cohorts as well as identifying gaps and next steps for planning.

Materials we use:

- PUMA (Maths) & PIRA (Reading) tests each term
- End of topic or unit tests/tasks
- Weekly quizzes and tests

Nationally Standardised Summative Assessment

At key points, children are assessed against national expectations. These are:

- A Baseline Assessment in EYFS
- End of EYFS
- End of Year 1 (Phonics Screening)
- End of KS1 (Year 2 SATs)
- End of KS2 (Year 6 SATs)

Assessment in Early Years

During the year children are assessed against statements from the Early Years Foundation Stage Curriculum, linked to their age. These assessments are used to inform their star and a wish targets recorded in their WOW books. Objectives for children in their first year at school are banded in the following way:

- 30 - 50 months
- 40 - 60 months
- Early Learning Goals

When children start school a baseline assessment is undertaken which informs the teachers planning.

At the end of the year children are then assessed against the Early Learning Goals using the following terms:

- Emerging (1) - Where children are still working in the 40-60 band or below
- Expected (2) - Where children are working within the Early Learning Goals
- Exceeded (3) - Where children are working above the expectation for children in Early Years

Pupils' attainment and progress are recorded on Target Tracker. Baseline Assessment will be made during the child's first 6 weeks at school. Ongoing assessments will be made by all adults working in Early Years. Evidence will be recorded in pupils' WOW books. Parents will also be encouraged to feed evidence into the ongoing assessment process. Target Tracker will be used to record summative judgments and the final judgment will be made leading to assessing if a child has reached the Good Level of Development expectation.

We have identified key milestones that we expect pupils to reach each term. Staff monitor each pupils' development and provide additional support to ensure children reach these milestones.

Phonics will also be assessed every 6 weeks and recorded using our RWInc tracker document.

Assessment in Key Stages 1 & 2

English

Phonics - Children are assessed 6 weekly using the Read Write Inc assessment sheet

Reading - Pupils' reading age and a standardised test is used twice a year.

Writing - Pupils' writing is assessed using our writing framework.

Maths

Arithmetic & Reasoning - Pupils are assessed using standardised tests

General Mathematics - pupils are assessed using our maths fluency framework

Science and Foundation subjects

Pupils are assessed using a range of tasks, quizzes and tests throughout the year.

Roles and Responsibilities

- Governing Body: Monitor whole school attainment and progress data
- SLT: Monitor attainment and progress at key points in the year.
- Teachers: Carry out regular, accurate assessments of pupils, provide high quality feedback and use assessment information to inform planning.
- Support Staff: Support children with their learning as directed by class teachers and provide feedback on children's learning.
- Parents/Carers: Support children with home learning and inform class teachers of achievements observed at home, eg feedback on a child's progress in reading.

Communication with Parents

Children's attainment and progress will be discussed at Parent Consultation Meetings which take place during the year. Reports will comment on children's attainment and progress and key assessment data will be included in these reports.

Autumn Term:

- Meet the Teacher Meeting in September
- Formal Parent Consultation in November where achievements and targets are shared

Spring Term:

- Formal Parent Consultation in February where achievements and targets are shared

Summer Term:

- Parent and Child Consultation Meeting to celebrate success
- Written report

Teachers are also available for informal consultationS if parents wish to discuss their child's learning at other points.

Inclusion

Teachers will take account of their duties under equal opportunities legislation that covers race, disability, sex, religion or belief, sexual orientation, pregnancy and maternity, and gender reassignment.

Lessons will be planned to ensure that there are no barriers to every pupil achieving. In many cases, such planning will mean that these pupils will be able to study the full national curriculum. The [SEN Code of Practice](#) provides advice on approaches to identification of need which can support this. A minority of pupils will need access to specialist equipment and different approaches. Teachers will plan lessons so that these pupils can study every national curriculum subject. Potential areas of difficulty should be identified and addressed at the outset of any unit of work.

Teachers will also take account of the needs of pupils whose first language is not English. Monitoring of progress should take account of the pupil's age, length of time in this country, previous educational experience and ability in other languages. The ability of pupils for whom English is an additional language to take part in the national curriculum may be in advance of their communication skills in English. Teachers will plan teaching opportunities to help pupils develop their English and should aim to provide the support pupils need to take part in all subjects.

Equal Opportunities Statement

Equal opportunities should permeate all aspects of school life, and is the responsibility of every member of the school community. We aim to ensure that our planning, teaching and learning reflects our specific commitment to equality of opportunity in all subject areas and themes in line with the National Curriculum and that planning takes account of the differing needs of pupils and their progression.

Equality Objectives

- To promote spiritual, moral, social and cultural development through all appropriate curricular opportunities, with particular reference to issues of equality and diversity.
- To narrow the gap between boys and girls attainment at the end of KS2
- To tackle prejudice and promote understanding in relation to people with disabilities.

Role of Governors, Parents & Carers

The governing body determine, support, monitor and review the school's policies.

We believe that parents have a fundamental role to play in helping their children learn and progress within our school. We are committed to ensuring that parents are informed about the themes we cover, when homework is set and how to help their child. We achieve this through:

- Written communication (letters, website, twitter)
- Face to face events (Curriculum information evenings, Parents' evenings)

Health and Safety

Health, safety and welfare are an integral part of all activities in school and all staff take reasonable steps to provide safe and healthy conditions for learners, and others during curriculum activities to ensure compliance with all relevant health and safety legislation.

All activities have risk assessments carried out regularly.

Curriculum Subjects

Art

Purpose of study

Art, craft and design embody some of the highest forms of human creativity. A high-quality art and design education should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design. As pupils progress, they should be able to think critically and develop a more rigorous understanding of art and design. They should also know how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.

Aims

The national curriculum for art and design aims to ensure that all pupils:

- produce creative work, exploring their ideas and recording their experiences
- become proficient in drawing, painting, sculpture and other art, craft and design techniques
- evaluate and analyse creative works using the language of art, craft and design
- know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms.

Subject content

Key stage 1

Pupils should be taught:

- to use a range of materials creatively to design and make products
- to use drawing, painting and sculpture to develop and share their ideas, experiences and imagination
- to develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space
- about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.

Key stage 2

Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.

Pupils should be taught:

- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- about great artists, architects and designers in history.

Computing

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Key stage 1

Pupils should be taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Design Technology

Purpose of study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Key stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

When designing and making, pupils should be taught to:

Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Key stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes

- understand where food comes from.

Key stage 2

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

English

Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject. English is both a subject in its own right and the medium for teaching; for pupils, understanding the language provides access to the whole curriculum. Fluency in the English language is an essential foundation for success in all subjects.

Spoken language

Pupils should be taught to speak clearly and convey ideas confidently using Standard English. They should learn to justify ideas with reasons; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on the ideas of others; and select the appropriate register for effective communication. They should be taught to give well-structured descriptions and explanations and develop their understanding through speculating, hypothesising and exploring ideas. This will enable them to clarify their thinking as well as organise their ideas for writing.

Reading and writing

Teachers should develop pupils' reading and writing in all subjects to support their acquisition of knowledge. Pupils should be taught to read fluently, understand extended prose (both fiction and non-fiction) and be encouraged to read for pleasure. Schools should do everything to promote wider reading. They should provide library facilities and set ambitious expectations for reading at home. Pupils should develop the stamina and skills to write at length, with accurate spelling and punctuation. They should be taught the correct use of grammar. They should build on what they have been taught to expand the range of their writing and the variety of the grammar they use. The writing they do should include narratives, explanations, descriptions, comparisons, summaries and evaluations: such writing supports them in rehearsing, understanding and consolidating what they have heard or read.

Vocabulary development

Pupils' acquisition and command of vocabulary are key to their learning and progress across the whole curriculum. Teachers should therefore develop vocabulary actively, building systematically on pupils' current knowledge. They should increase pupils' store of words in general; simultaneously, they should also make links between known and new vocabulary and discuss the shades of meaning in similar words. In this way, pupils expand the vocabulary choices that are available to them when they write. In addition, it is vital for pupils' comprehension that they understand the meanings of words they meet in their reading across all subjects, and older pupils should be taught the meaning of instruction verbs that they may meet in examination questions. It is particularly important to induct pupils into the language which defines each subject in its own right, such as accurate mathematical and scientific language.

Purpose of study

English has a pre-eminent place in education and in society. A high-quality education in English will teach pupils to speak and write fluently so that they can communicate their ideas and emotions to others and through their reading and listening, others can communicate with them. Through reading in particular, pupils have a chance to develop culturally, emotionally, intellectually, socially and spiritually. Literature, especially, plays a key role in such development. Reading also enables pupils both to acquire knowledge and to build on what they already know. All the skills of language are essential to participating fully as a member of society; pupils, therefore, who do not learn to speak, read and write fluently and confidently are effectively disenfranchised.

Aims

The overarching aim for English in the national curriculum is to promote high standards of language and literacy by equipping pupils with a strong command of the spoken and written word, and to develop their love of literature through widespread reading for enjoyment. The national curriculum for English aims to ensure that all pupils:

- read easily, fluently and with good understanding
- develop the habit of reading widely and often, for both pleasure and information
- acquire a wide vocabulary, an understanding of grammar and knowledge of linguistic conventions for reading, writing and spoken language
- appreciate our rich and varied literary heritage
- write clearly, accurately and coherently, adapting their language and style in and for a range of contexts, purposes and audiences
- use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas
- are competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate.

Spoken language

The national curriculum for English reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. Spoken language underpins the development of reading and writing. The quality and variety of language that pupils hear and speak are vital for developing their vocabulary and grammar and their understanding for reading and writing. Teachers should therefore ensure the continual development of pupils' confidence and competence in spoken language and listening skills. Pupils should develop a capacity to explain their understanding of books and other reading, and to prepare their ideas before they write. They must be assisted in making their thinking clear to themselves as well as to others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions. Pupils should also be taught to understand and use the conventions for discussion and debate.

All pupils should be enabled to participate in and gain knowledge, skills and understanding associated with the artistic practice of drama. Pupils should be able to adopt, create and sustain a range of roles, responding appropriately to others in role. They should have opportunities to improvise, devise and script drama for one another and a range of audiences, as well as to rehearse, refine, share and respond thoughtfully to drama and theatre performances.

Statutory requirements which underpin all aspects of spoken language across the six years of primary education form part of the national curriculum. These are reflected and contextualised within the reading and writing domains which follow.

Reading

The programmes of study for reading at key stages 1 and 2 consist of two dimensions:

- word reading
- comprehension (both listening and reading).

It is essential that teaching focuses on developing pupils' competence in both dimensions; different kinds of teaching are needed for each.

Skilled word reading involves both the speedy working out of the pronunciation of unfamiliar printed words (decoding) and the speedy recognition of familiar printed words. Underpinning both is the understanding that the letters on the page represent the sounds in spoken words. This is why phonics should be emphasised in the early teaching of reading to beginners (i.e. unskilled readers) when they start school.

Good comprehension draws from linguistic knowledge (in particular of vocabulary and grammar) and on knowledge of the world. Comprehension skills develop through pupils' experience of high-quality discussion with the teacher, as well as from reading and discussing a range of stories, poems and non-fiction. All pupils must be encouraged to read widely across both fiction and non-fiction to develop their knowledge of themselves and the world in which they live, to establish an appreciation and love of reading, and to gain knowledge across the curriculum. Reading widely and often increases pupils'

vocabulary because they encounter words they would rarely hear or use in everyday speech. Reading also feeds pupils' imagination and opens up a treasure-house of wonder and joy for curious young minds.

It is essential that, by the end of their primary education, all pupils are able to read fluently, and with confidence, in any subject in their forthcoming secondary education.

Writing

The programmes of study for writing at key stages 1 and 2 are constructed similarly to those for reading:

- transcription (spelling and handwriting)
- composition (articulating ideas and structuring them in speech and writing).

It is essential that teaching develops pupils' competence in these two dimensions. In addition, pupils should be taught how to plan, revise and evaluate their writing. These aspects of writing have been incorporated into the programmes of study for composition.

Writing down ideas fluently depends on effective transcription: that is, on spelling quickly and accurately through knowing the relationship between sounds and letters (phonics) and understanding the morphology (word structure) and orthography (spelling structure) of words. Effective composition involves forming, articulating and communicating ideas, and then organising them coherently for a reader. This requires clarity, awareness of the audience, purpose and context, and an increasingly wide knowledge of vocabulary and grammar. Writing also depends on fluent, legible and, eventually, speedy handwriting.

Spelling, vocabulary, grammar, punctuation and glossary

The two statutory appendices – on spelling and on vocabulary, grammar and punctuation – give an overview of the specific features that should be included in teaching the programmes of study.

Opportunities for teachers to enhance pupils' vocabulary arise naturally from their reading and writing. As vocabulary increases, teachers should show pupils how to understand the relationships between words, how to understand nuances in meaning, and how to develop their understanding of, and ability to use, figurative language. They should also teach pupils how to work out and clarify the meanings of unknown words and words with more than one meaning. References to developing pupils' vocabulary are also included within the appendices.

Pupils should be taught to control their speaking and writing consciously and to use Standard English. They should be taught to use the elements of spelling, grammar, punctuation and 'language about language' listed. This is not intended to constrain or restrict teachers' creativity, but simply to provide the structure on which they can construct exciting lessons. A non-statutory Glossary is provided for teachers.

Throughout the programmes of study, teachers should teach pupils the vocabulary they need to discuss their reading, writing and spoken language. It is important that pupils learn the correct grammatical terms in English and that these terms are integrated within teaching.

Geography

Purpose of study

A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. Teaching should equip pupils with knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human processes. As pupils progress, their growing knowledge about the world should help them to deepen their understanding of the interaction between physical and human processes, and of the formation and use of landscapes and environments. Geographical knowledge, understanding and skills provide the frameworks and approaches that explain how the Earth's features at different scales are shaped, interconnected and change over time.

Aims

The national curriculum for geography aims to ensure that all pupils:

- develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes

- understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time
- are competent in the geographical skills needed to:
- collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes
- interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS)
- communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.

Key stage 1

Pupils should develop knowledge about the world, the United Kingdom and their locality. They should understand basic subject-specific vocabulary relating to human and physical geography and begin to use geographical skills, including first-hand observation, to enhance their locational awareness.

Pupils should be taught to:

Locational knowledge

- name and locate the world's seven continents and five oceans
- name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas

Place knowledge

- understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country

Human and physical geography

- identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles
- use basic geographical vocabulary to refer to:
- key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather
- key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop

Geographical skills and fieldwork

- use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage
- use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map
- use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key
- use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

Key stage 2

Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

Pupils should be taught to:

Locational knowledge

- locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills,

mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time

- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

Place knowledge

- understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America

Human and physical geography

- describe and understand key aspects of:
 - physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
 - human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

Geographical skills and fieldwork

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
- use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

History

Purpose of study

A high-quality history education will help pupils gain a coherent knowledge and understanding of Britain's past and that of the wider world. It should inspire pupils' curiosity to know more about the past. Teaching should equip pupils to ask perceptive questions, think critically, weigh evidence, sift arguments, and develop perspective and judgement. History helps pupils to understand the complexity of people's lives, the process of change, the diversity of societies and relationships between different groups, as well as their own identity and the challenges of their time.

Aims

The national curriculum for history aims to ensure that all pupils:

- know and understand the history of these islands as a coherent, chronological narrative, from the earliest times to the present day: how people's lives have shaped this nation and how Britain has influenced and been influenced by the wider world
- know and understand significant aspects of the history of the wider world: the nature of ancient civilisations; the expansion and dissolution of empires; characteristic features of past non-European societies; achievements and follies of mankind
- gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'peasantry'
- understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses
- understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed
- gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.

Key stage 1

Pupils should develop an awareness of the past, using common words and phrases relating to the passing of time. They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods. They should use a wide vocabulary of everyday historical terms. They should ask and answer questions, choosing and using parts of stories and other sources to show that they know and understand key features of events. They should understand some of the ways in which we find out about the past and identify different ways in which it is represented.

In planning to ensure the progression described above through teaching about the people, events and changes outlined below, teachers are often introducing pupils to historical periods that they will study more fully at key stages 2 and 3.

Pupils should be taught about:

- changes within living memory. Where appropriate, these should be used to reveal aspects of change in national life
- events beyond living memory that are significant nationally or globally [for example, the Great Fire of London, the first aeroplane flight or events commemorated through festivals or anniversaries]
- the lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods [for example, Elizabeth I and Queen Victoria, Christopher Columbus and Neil Armstrong, William Caxton and Tim Berners-Lee, Pieter Bruegel the Elder and LS Lowry, Rosa Parks and Emily Davison, Mary Seacole and/or Florence Nightingale and Edith Cavell]
- significant historical events, people and places in their own locality.

Key stage 2

Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. They should note connections, contrasts and trends over time and develop the appropriate use of historical terms. They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. They should construct informed responses that involve thoughtful selection and organisation of relevant historical information. They should understand how our knowledge of the past is constructed from a range of sources.

In planning to ensure the progression described above through teaching the British, local and world history outlined below, teachers should combine overview and depth studies to help pupils understand both the long arc of development and the complexity of specific aspects of the content.

Pupils should be taught about:

- changes in Britain from the Stone Age to the Iron Age
- the Roman Empire and its impact on Britain
- Britain's settlement by Anglo-Saxons and Scots
- the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor
- a local history study
- a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
- the achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China
- Ancient Greece – a study of Greek life and achievements and their influence on the western world
- a non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

Languages (Spanish)

Purpose of study

Learning a foreign language is a liberation from insularity and provides an opening to other cultures. A high-quality languages education should foster pupils' curiosity and deepen their understanding of the world. The teaching should enable pupils to express their ideas and thoughts in another language and to understand and respond to its speakers, both in speech and in writing. It should also provide opportunities for them to communicate for practical purposes, learn new ways of thinking and read great literature in the original language. Language teaching should provide the foundation for learning further languages, equipping pupils to study and work in other countries.

Aims

The national curriculum for languages aims to ensure that all pupils:

- understand and respond to spoken and written language from a variety of authentic sources
- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation
- can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt
- discover and develop an appreciation of a range of writing in the language studied.

Key stage 1: Foreign language - Spanish

Teachers introduce pupils to simple greetings and vocabulary.

Key stage 2: Foreign language - Spanish

The teaching should provide an appropriate balance of spoken and written language and should lay the foundations for further foreign language teaching at key stage 3. It should enable pupils to understand and communicate ideas, facts and feelings in speech and writing, focused on familiar and routine matters, using their knowledge of phonology, grammatical structures and vocabulary.

The focus of study in modern languages will be on practical communication.

Pupils should be taught to:

- listen attentively to spoken language and show understanding by joining in and responding
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words
- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help*
- speak in sentences, using familiar vocabulary, phrases and basic language structures
- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases*
- present ideas and information orally to a range of audiences*
- read carefully and show understanding of words, phrases and simple writing
- appreciate stories, songs, poems and rhymes in the language
- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary
- write phrases from memory, and adapt these to create new sentences, to express ideas clearly
- describe people, places, things and actions orally* and in writing
- understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.

Maths

Purpose of study

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding

the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

The National curriculum emphasises the importance of all pupils mastering the content taught each year. Our expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will consolidate their understanding, including through additional practice, before moving on. Progress in mathematics learning each year will be assessed according to the extent to which pupils are gaining a deep understanding of the content taught for that year, resulting in sustainable knowledge and skills. Key measures of this are the abilities to reason mathematically and to solve increasingly complex problems, doing so with fluency, as described in the aims of the National curriculum: 'The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- **reason** mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.'

Teachers should use every relevant subject to develop pupils' mathematical fluency. Confidence in numeracy and other mathematical skills is a precondition of success across the national curriculum. Teachers should develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics. Pupils should be taught to apply arithmetic fluently to problems, understand and use measures, make estimates and sense check their work. Pupils should apply their geometric and algebraic understanding, and relate their understanding of probability to the notions of risk and uncertainty. They should also understand the cycle of collecting, presenting and analysing data. They should be taught to apply their mathematics to both routine and non-routine problems, including breaking down more complex problems into a series of simpler steps.

Assessment

Each year there are 3 key dates (one in each term) for all assessment data to be recorded on the school's Target Tracker system. (These are agreed at the beginning of each year)

- PUMA tests are used to assess pupils attainment
- Times table knowledge is tracked

What do we mean by mastery?

The essential idea behind mastery is that all children need a deep understanding of the mathematics they are learning so that:

- future mathematical learning is built on solid foundations which do not need to be re-taught;
- there is no need for separate catch-up programmes due to some children falling behind;
- children who, under other teaching approaches, can often fall a long way behind, are better able to keep up with their peers, so that gaps in attainment are narrowed whilst the attainment of all is raised.

Mastery is not just being able to memorise key facts and procedures and answer test questions accurately and quickly. It involves knowing 'why' as well as knowing 'that' and knowing 'how'. It means being able to use one's knowledge appropriately, flexibly and creatively and to apply it in new and unfamiliar situations.

Mastery of mathematics is not a fixed state but a continuum. At each stage of learning, pupils should acquire and demonstrate sufficient grasp of the mathematics relevant to their year group, so that their learning is sustainable over time and can be built upon in subsequent years. This requires development of depth through looking at concepts in detail using a variety of representations and contexts and committing key facts, such as number bonds and times tables, to memory.

Mastery of facts, procedures and concepts needs time: time to explore the concept in detail and time to allow for sufficient practice to develop fluency. Practice is most effective when it is intelligent practice, i.e. where the teacher is advised to avoid mechanical repetition and to create an appropriate path for practising the thinking process with increasing creativity.

Mastery and mastery with greater depth

Integral to mastery of the curriculum is the development of deep rather than superficial conceptual understanding. 'The research for the review of the National Curriculum showed that it should focus on "fewer things in greater depth", in secure learning which persists, rather than relentless, over-rapid progression.' It is inevitable that some pupils will grasp concepts more rapidly than others and will need to be stimulated and challenged to ensure continued progression. However, research indicates that these pupils benefit more from enrichment and deepening of content, rather than acceleration into new content. Acceleration is likely to promote superficial understanding, rather than the true depth and rigour of knowledge that is a foundation for higher mathematics.

Mastery of the curriculum requires that all pupils:

- use mathematical concepts, facts and procedures appropriately, flexibly and fluently;
- recall key number facts with speed and accuracy and use them to calculate and work out unknown facts;
- have sufficient depth of knowledge and understanding to reason and explain mathematical concepts and procedures and use them to solve a variety of problems.

A useful checklist for what to look out for when assessing a pupil's understanding might be: A pupil really understands a mathematical concept, idea or technique if he or she can:

- describe it in his or her own words;
- represent it in a variety of ways (e.g. using concrete materials, pictures and symbols – the CPA approach)
- explain it to someone else;
- make up his or her own examples (and non-examples) of it;
- see connections between it and other facts or ideas;
- recognise it in new situations and contexts;
- make use of it in various ways, including in new situations.

Developing mastery with greater depth is characterised by pupils' ability to:

- solve problems of greater complexity (i.e. where the approach is not immediately obvious), demonstrating creativity and imagination;

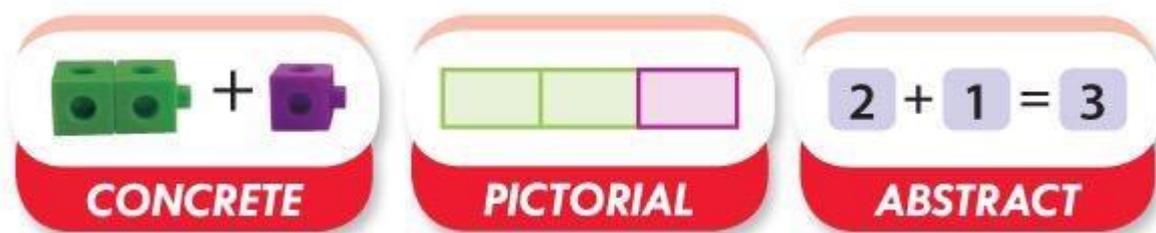
- independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics.

[Content taken from Teaching for Mastery, Oxford University Press - NECTM]

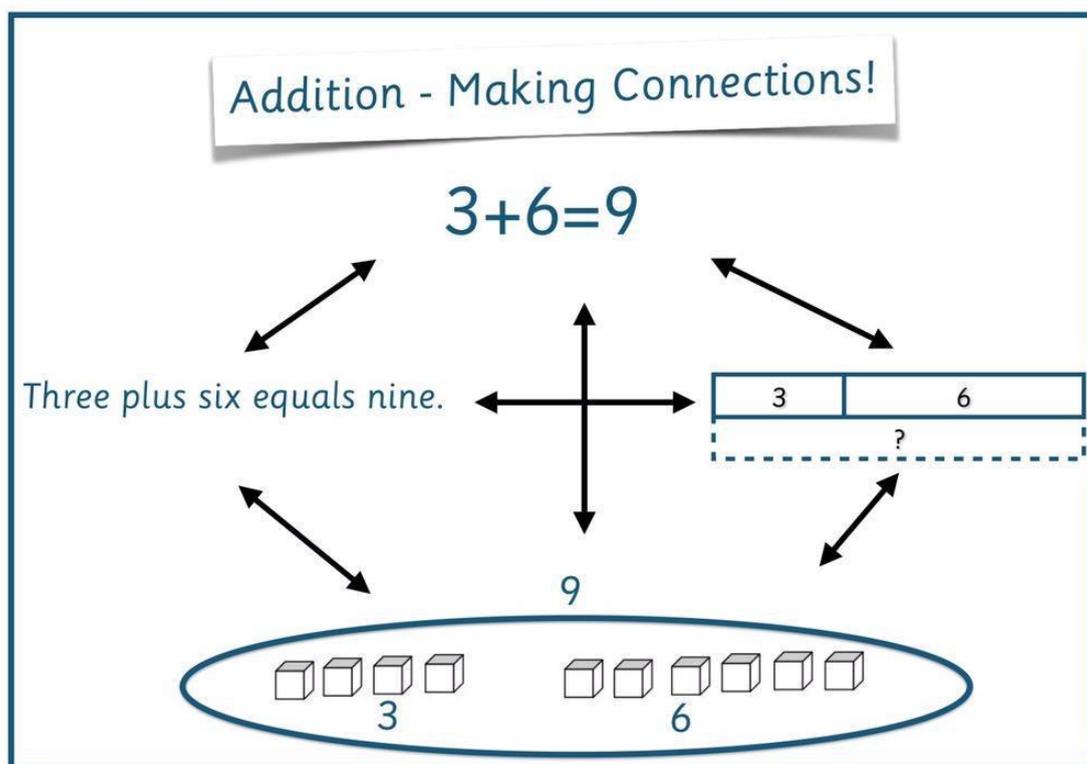
Concrete, Pictorial, Abstract

When planning learning in maths, we will ensure all new concepts are introduced in the following way:

- Concrete - using equipment, real objects, etc
- Pictorially - using images, thinking blocks, etc to represent the concept
- Abstract - finally provide the abstract mathematical symbols used



It can be helpful to show all three at the same time:



Throughout a child's journey in mathematics, all three remain important. Concrete and pictorial are not just for lower ability pupils, but should be used with all pupils throughout their learning.

Misconceptions

Children are constantly looking to find connections in maths. They look at examples you put on the board, they listen to what you say and then make connections. We must ensure what we display, the examples we chose and the language we use, do not create misconceptions for children.

E.g. When teaching even number, if all of your 2 digit examples on the board have an even digit in the tens column as well as the units column, children can make an assumption that all 2 digit even numbers must have an even digit in the tens column (24, 62, 84, etc). The examples you place on the board must not lead them to wrong conclusions, therefore a range of numbers should be displayed (e.g. 34, 62. 78. 44).

We must do all we can to eliminate misconceptions quickly when we identify them.

Progression in Written Calculation

The school's written calculation progression documents can be viewed [here](#)

Mathematical Vocabulary

- Teachers, TAs and pupils should use the correct maths vocabulary at all times
- Classrooms to display maths vocabulary effectively

Marking and Feedback

- All maths work should be marked
- Errors/misconceptions should be dealt with
- Pupils respond to the marking

Questioning

Asking the right questions, both by teachers and pupils is important. Here are some examples:

- After a child has given an answer, ask "Why?" "What if..?"
- What is the same, what is different?
- Is this "always, sometimes or never?"
- Can you explain how you came to this answer?
- Do you agree with ?

Additive Reasoning

The underlying pattern of additive reasoning is the relationships between the parts and the whole. Getting children to think and talk about the whole and parts using concrete manipulatives early on should lay the foundations for them to internalise this underlying pattern. Every time children think and talk about number bonds, they can be practising identifying the whole, breaking it into parts and then recombining to make the whole once more.



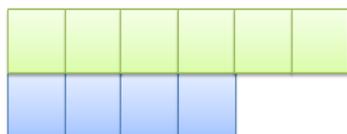
Four add two is equal to six $4 + 2 = 6$

Two add four is equal to six $2 + 4 = 6$

Six is equal to four add two $6 = 4 + 2$

Six is equal to two add four $6 = 2 + 4$

At this point it is important to experiment with rearranging the words in the statement. They should get to know that 'four add two is equal to six' and 'six is equal to four add two' are statements that are saying the same thing. Some discussion around what is the same and what is different about these two statements is worthwhile. When children are then shown how this looks abstractly with numerals and the equals sign, this would hopefully go some way towards avoiding the misconception that the equals sign means that 'the answer is next'.



It seems sensible to begin with giving children the parts and using the word 'something' to show that the whole is unknown, i.e., four add two is equal to something. Some modelling alongside a clear explanation followed by plenty of practice should

see children get used to the language patterns needed to think about the concept with clarity. The next step is to show children the whole and one of the parts, using the word 'something' to replace the unknown part. All of this talk and manipulation of objects is intended to support children to develop a concept of additive reasoning where they do not have the misconception that 'inverse' means 'do the opposite'.



Part + Part = Whole

Whole – Part = Part



$B + C = A$

$A = B + C$

$C + B = A$

$A = C + B$

$A - B = C$

$C = A - B$

$A - C = B$

$B = A - C$

More sophisticated additive reasoning is the understanding of the inverse relationship between addition and subtraction. Children need to fully understand that two or more parts can be equal to the whole. From this, they need to internalise the underlying patterns: that Part + Part = Whole and that Whole – Part = Part. From this, they should be able to work out the full range of calculations that represent one bar model. Again, it is important to vary the placement of the = sign.

One more way to get children to think about the whole and the parts is to use bar models for calculation practice rather than simply writing a calculation for children to work out. When done like this, children have to decide what calculation to do to work out the unknown. Children often exhibit misconceptions such as 'when you subtract, the biggest number goes first'. These can be addressed using the underlying patterns; adding parts together makes the whole and, when you subtract, you always subtract from the whole. When unknowns are introduced, they can be substituted into these basic patterns:

Part + Something = Whole

Part + □ = Whole

$35 + \square = 72$

Something + Part = Whole

□ + Part = Whole

$\square + 35 = 72$

Whole – Something = Part

Whole – □ = Part

$72 - \square = 35$

Something – Part = Part

□ – Part = Part

$\square - 35 = 37$

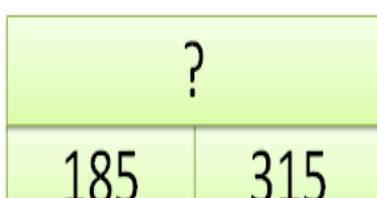


$315 - 185 = ?$

$185 + ? = 315$

An additive reasoning bar model with one unknown generates both an addition statement and a subtraction statement.

Showing children empty box problems pictorially, they can talk through the calculations that can be read from the bar model, using the word 'something' to represent the unknown. The next step is to show children abstract empty box problems and get them to map it onto a blank bar model. They should be drawing on their knowledge that the whole is equal to the sum



$185 + 315 = ?$

$? - 185 = 315$

of the parts and that when you subtract, you always start with the whole. Eventually, the hope is that the language alone should suffice to work out how to solve empty box problems, with children no longer needing the bars.

Further Reading

[Deepening Children's Understanding](#)

[Algebra throughout the National Curriculum](#)

[Addition and Subtraction](#)

[Fractions Using Bar Model](#)

[NCETM Calculation Guidance](#)

[Problem Solving](#)

Music

Purpose of study

Music is a universal language that embodies one of the highest forms of creativity. A high-quality music education should engage and inspire pupils to develop a love of music and their talent as musicians, and so increase their self-confidence, creativity and sense of achievement. As pupils progress, they should develop a critical engagement with music, allowing them to compose, and to listen with discrimination to the best in the musical canon.

Aims

The national curriculum for music aims to ensure that all pupils:

- perform, listen to, review and evaluate music across a range of historical periods, genres, styles and traditions, including the works of the great composers and musicians
- learn to sing and to use their voices, to create and compose music on their own and with others, have the opportunity to learn a musical instrument, use technology appropriately and have the opportunity to progress to the next level of musical excellence
- understand and explore how music is created, produced and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations.

Key stage 1

Pupils should be taught to:

- use their voices expressively and creatively by singing songs and speaking chants and rhymes
- play tuned and untuned instruments musically
- listen with concentration and understanding to a range of high-quality live and recorded music
- experiment with, create, select and combine sounds using the inter-related dimensions of music.

Key stage 2

Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory.

Pupils should be taught to:

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations

- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music.

PE

Purpose of study

A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically-demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect.

Aims

The national curriculum for physical education aims to ensure that all pupils:

- develop competence to excel in a broad range of physical activities
- are physically active for sustained periods of time
- engage in competitive sports and activities
- lead healthy, active lives.

Key stage 1

Pupils should develop fundamental movement skills, become increasingly competent and confident and access a broad range of opportunities to extend their agility, balance and coordination, individually and with others. They should be able to engage in competitive (both against self and against others) and co-operative physical activities, in a range of increasingly challenging situations.

Pupils should be taught to:

- master basic movements including running, jumping, throwing and catching, as well as developing balance, agility and co-ordination, and begin to apply these in a range of activities
- participate in team games, developing simple tactics for attacking and defending
- perform dances using simple movement patterns.

Key stage 2

Pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success.

Pupils should be taught to:

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.

Swimming and water safety

All schools must provide swimming instruction either in key stage 1 or key stage 2.

In particular, pupils should be taught to:

- swim competently, confidently and proficiently over a distance of at least 25 metres
- use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
- perform safe self-rescue in different water-based situations.

PSHE (including RSE)

During Key Stages 1 and 2, learners gradually build on the skills, attitudes and values, knowledge and understanding they have started to acquire and develop during the Early Years/Foundation Stage. PSHE education offers learning opportunities and experiences which reflect the increasing independence and physical and social awareness of learners as they move through the primary phase. They learn skills to develop effective relationships, assume greater personal responsibility and keep themselves safe. PSHE education assists pupils to cope with the changes at puberty, introduces them to a wider world and enables them to make an active contribution to their communities.

Overarching Concepts

- Identity (their personal qualities, attitudes, skills, attributes and achievements and what influences these)
- Relationships (including different types and in different settings)
- A healthy (including physically, emotionally and socially) balanced lifestyle (including within relationships, work-life, exercise and rest, spending and saving and diet)
- Risk (identification, assessment and how to manage risk rather than simply the avoidance of risk for self and others) and safety (including behaviour and strategies to employ in different settings)
- Diversity and equality (in all its forms)
- Rights (including the notion of universal human rights), responsibilities (including fairness and justice) and consent (in different contexts)
- Change (as something to be managed) and resilience (the skills, strategies and 'inner resources' we can draw on when faced with challenging change or circumstance)
- Power (how it is used and encountered in a variety of contexts including persuasion, bullying, negotiation and 'win-win' outcomes)
- Career (including enterprise, employability and economic understanding)

Aims:

- to give pupils the knowledge and develop the self esteem, confidence and self-awareness to make informed choices and decisions;
- to encourage and support the development of social skills and social awareness;
- to enable pupils to make sense of their own personal and social experiences;
- to promote responsible attitudes towards the maintenance of good physical and mental health, supported by a safe and healthy lifestyle;
- to enable effective interpersonal relationships and develop a caring attitude towards others;
- to encourage a caring attitude towards and responsibility for the environment;
- to help our pupils understand and manage their feelings;
- to understand how society works and the rights and responsibilities involved.

RE

Religious education actively promotes the values of truth, justice, respect for all and care of the environment. It places specific emphasis on:

- pupils valuing themselves and others,
- the role of family and the community in religious belief and activity,
- the celebration of diversity in society through understanding similarities and differences,
- sustainable development of the earth and care for creation.

Religious education also recognises the changing nature of society, including changes in religious practice and expression and the influence of religion, in the local, national and global community.

Purpose of Study

Religious education contributes dynamically to children and young people's education in schools by provoking challenging questions about meaning and purpose in life, beliefs about God, ultimate reality, issues of right and wrong and what it means to be human. In RE they learn about and from religions and worldviews in local, national and global contexts, to discover, explore and consider different answers to these questions. They learn to weigh up the value of wisdom from different sources, to develop and express their insights in response, and to agree or disagree respectfully. Teaching therefore should equip pupils with systematic knowledge and understanding of a range of religions and worldviews, enabling them to develop their ideas, values and identities. It should develop in pupils an aptitude for dialogue so that they can participate positively in our society with its diverse religions and worldviews. Pupils should gain and deploy the skills needed to understand, interpret and evaluate texts, sources of wisdom and authority and other evidence. They learn to articulate clearly and coherently their personal beliefs, ideas, values and experiences while respecting the right of others to differ.

Aims

- A. Know about and understand a range of religions and worldviews, so that they can:
- describe, explain and analyse beliefs and practices, recognising the diversity which exists within and between communities and amongst individuals;
 - identify, investigate and respond to questions posed, and responses offered by some of the sources of wisdom found in religions and worldviews;
 - appreciate and appraise the nature, significance and impact of different ways of life and ways of expressing meaning.
- B. Express ideas and insights about the nature, significance and impact of religions and worldviews, so that they can:
- explain reasonably their ideas about how beliefs, practices and forms of expression influence individuals and communities;
 - express with increasing discernment their personal reflections and critical responses to questions and teachings about identity, diversity, meaning and value, including ethical issues;
 - appreciate and appraise varied dimensions of religion or a worldview.
- C. Gain and deploy the skills needed to engage purposefully with religions and worldviews, so that they can:
- find out about and investigate key concepts and questions of belonging, meaning, purpose and truth, responding creatively;
 - enquire into what enables different individuals and communities to live together respectfully for the wellbeing of all;
 - articulate beliefs, values and commitments clearly in order to explain why they may be important in their own and other people's lives.

Religions Studied

In order to provide a broad and balanced religious education curriculum and to ensure statutory requirements are met this syllabus requires that:

- Christianity should be taught at each Key Stage and shall comprise more than half the curriculum content
- Introductory courses on Hinduism, Islam and Judaism shall be taught during Key Stages 1 and 2

[West Sussex RE Syllabus](#)

Science

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 science 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.

Scientific knowledge and conceptual understanding

The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. Insecure, superficial understanding will not allow genuine progression: pupils may struggle at key points of transition (such as between primary and secondary school), build up serious misconceptions, and/or have significant difficulties in understanding higher-order content.

Pupils should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. They should also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. The social and economic implications of science are important but, generally, they are taught most appropriately within the wider school curriculum: teachers will wish to use different contexts to maximise their pupils' engagement with and motivation to study science.

The nature, processes and methods of science

'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. It should not be taught as a separate strand. The notes and guidance give examples of how 'working scientifically' might be embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data. 'Working scientifically' will be developed further at key stages 3 and 4, once pupils have built up sufficient understanding of science to engage meaningfully in more sophisticated discussion of experimental design and control.

Spoken language

The national curriculum for science reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely. They must be assisted in making their thinking clear, both to themselves and others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

Key Stage 1 Science

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

'Working scientifically' is described separately in the programme of study, but must **always** be taught through and clearly related to the teaching of substantive science content in the programme of study.

Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

Lower Key Stage 2 Science

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

'Working scientifically' is described separately at the beginning of the programme of study, but must **always** be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Upper Key Stage 2 Science

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions,

relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

'Working and thinking scientifically' is described separately at the beginning of the programme of study, but must **always** be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read, spell and pronounce scientific vocabulary correctly.

Across the school Science is taught as part of a Theme where possible. Some aspects of the science curriculum are taught discretely.

Extra Curricular Activities

Extra Curricular Activities provide a valuable contribution to the overall curriculum we offer pupils at the school. We endeavour to provide opportunities for all pupils to benefit from the following activities inside and out of school:

- Curriculum Trips (e.g. museum, science centres, historical buildings, local environment)
- Sporting Events (e.g. sports team, inter-house events)
- Local Church (e.g. for Year 6 Carol Service)
- Residential Experience (e.g. Year 6 residential trip)
- Gifted and Talented events (e.g. Art workshops, Maths competitions)
- Performances (e.g. Christmas productions, Music Concert, Year 6 Leavers Production)

Hidden Curriculum

Throughout everything we do, there are key principles and values that underpin the choices we make about the curriculum and the activities children take part in. This can be described as the "hidden curriculum", as it is often not taught discretely, but filters through all that we do. This includes behaviors, perspectives, and attitudes that children pick up while they're at school.

The hidden curriculum begins early in a child's education. Children learn to form opinions and ideas about their environment and their classmates. For example, children learn 'appropriate' ways to act at school by watching their peers and the adults around them. These attitudes and ideas aren't taught in any formal way, but children absorb and internalize them through natural observation and participation in classroom and social activities.

Our hidden curriculum covers issues such as morals, stereotypes, cultural expectations, politics, and language. It also links strongly to our vision: Valuing All Learners Equally, and our values of wanting children to become: Successful learners, Confident individuals, and Responsible Citizens. Behaviour expectations are also a key part of the hidden curriculum, linked to our desire to "Catching children being good".

Hidden curriculum is found within the formal curriculum of our school; this may be partially in what is not taught. It is important that all adults ensure we provide children with positive experiences that reinforce our aims to value them all. This will influence the choices we make about who we study from history (both male and female heroes), the images we use in class (using a range of images from different cultures and countries), and the language we use when speaking about different people groups.