

Our curriculum intent

Date: Autumn 2021 and reviewed on an on-going basis

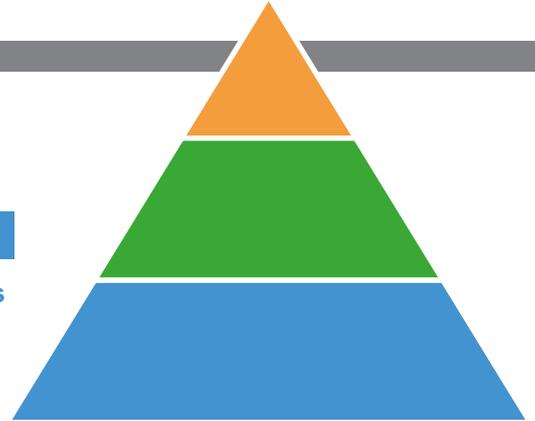
This Curriculum Statement sits alongside a similar document for Early Years, Reading, Writing and Maths.

An overview of our curriculum intent

Our curriculum intent has three layers:

Layer 1: Our schools' core aim

We want Sphere Federation schools to be happy and healthy places to learn. This core aim permeates our schools and their ethos, whether in the classroom or around and about school. *(At St James' CE Primary, this is expressed with one additional element: 'happy and healthy place to achieve and believe'.)*



Layer 2: Knowledge and skills

The knowledge and skills we are required to teach are set out in The National Curriculum (Department for Education, 2014) and the RE statutory curriculum for maintained schools in Leeds. We set these out in a year-group based sequence of learning (age-related expectations) with some additional/explicit learning. Challenge and fluency are key aspects: we search for purposeful, meaningful opportunities to challenge all pupils, to extend and deepen their learning; and we want our children to be fluent in the skill of reading and in their rapid recall of number facts, for example.

Layer 3: Attitudes

We deliver the content in ways which achieve four intentions that promote positive attitudes to learning (many of which feature in the National Curriculum Purpose of Study for each subject):

enjoyable

We want Sphere Federation schools to be happy and healthy places to learn. The more enjoyable a topic is, the more engaged our pupils will be, and the more we will be able to meet the needs of all children in our school community. Visits, visitors, themed weeks and other enriching activities help to make the curriculum enjoyable.

relevant

Ofsted sets out a criterion to judge the quality of education: 'the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life.' (School inspection handbook: Handbook for inspecting schools in England under section 5 of the Education Act 2005, November 2019, point 178, p43). The knowledge and skills we set out in our age-related expectations mean our curriculum content is relevant for our pupils' present and future lives.

inspiring

The National Curriculum sets out 'to engender an appreciation of human creativity and achievement' (section 3.1, p6). In the different subjects of the curriculum, we introduce pupils to British and world-wide achievements, past and present. Further, we want to promote an appreciation and sense of awe and wonder when learning about the natural world. In this way, our curriculum presents a rich source of opportunities for pupils to be inspired.

creative

A characteristic of effective learning is creative thinking – we want our children to develop this from the outset of their learning journey: our children will be creative in their ideas, in their questions, in their solutions. For our teachers, our curriculum has some flexibility built into it so that they can be creative, linking learning with books that inspire, for example.

Overview (core and foundation subjects)

The following two pages present an overview of how we implement our curriculum.

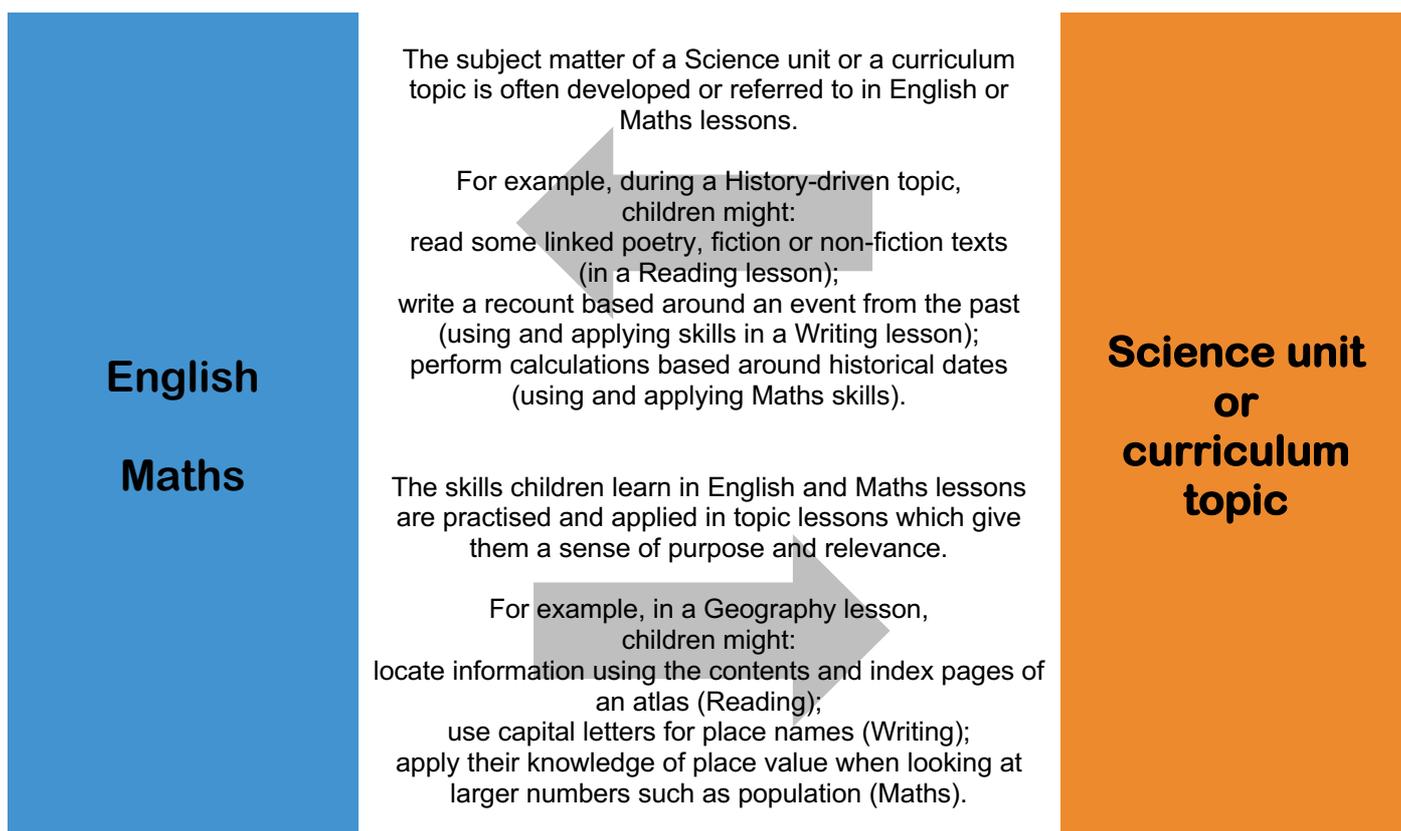
To meet our curriculum aims, teachers will deliver lessons which are:

- coherently planned, and
- sequenced to ensure cumulatively sufficient **knowledge** and **skills** for future learning

specific knowledge and skills	core knowledge and skills	supporting skills
These derive from each individual National Curriculum subject; we set them out in our age-related expectations (the second part of this Curriculum Statement).	<ul style="list-style-type: none"> • oral and written communication: speaking, listening, reading, writing • application of maths 	<ul style="list-style-type: none"> • digital literacy • working with others • improving own learning and performance (linked to meta-cognition) • thinking skills (eg critical thinking, reasoning, problem-solving)

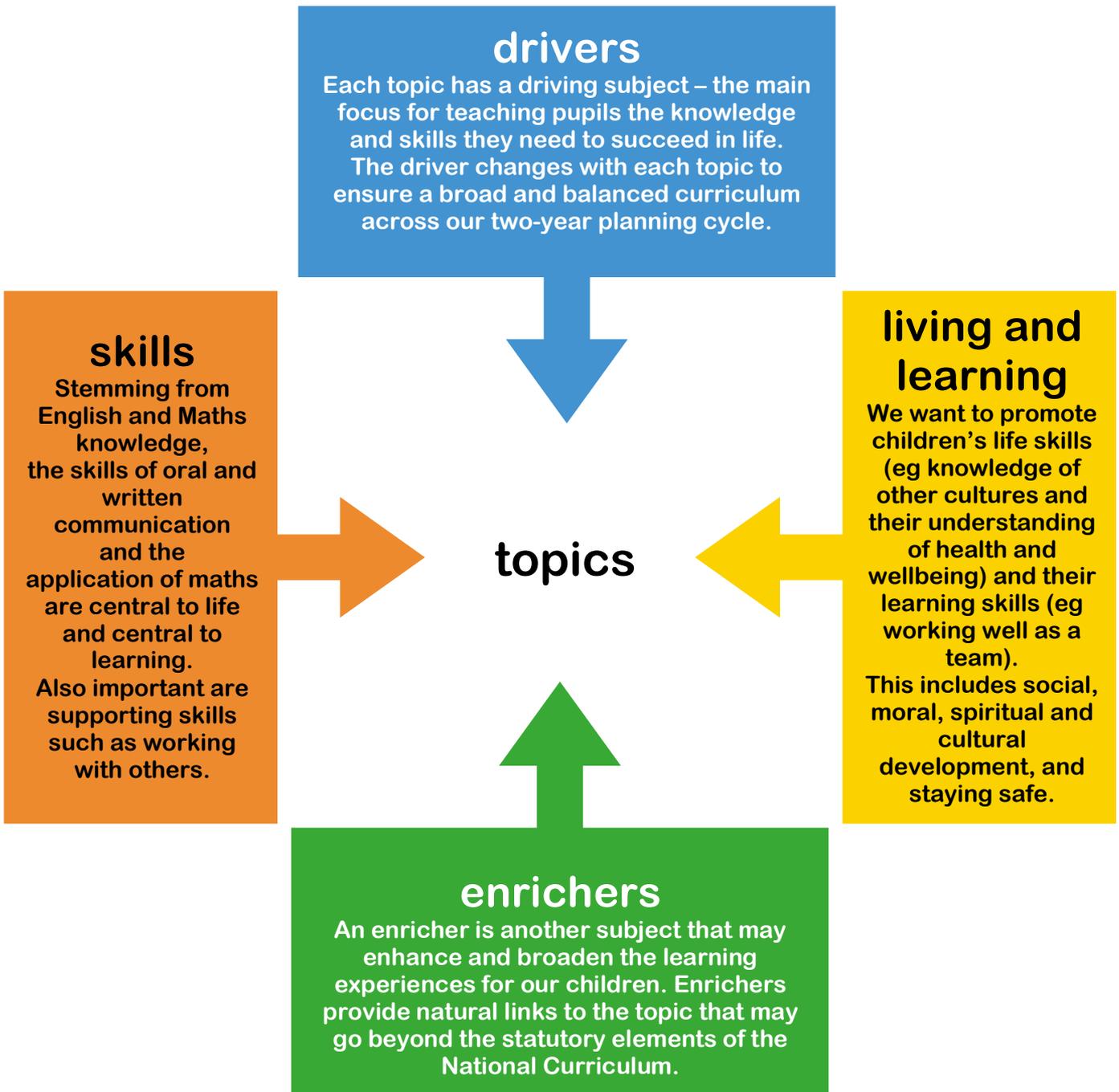
The **core subjects** of English, Maths and Science are taught as discrete subjects.

Half-termly topics are driven by a **foundation subject** (History, Geography, Computing, Art, Design Technology etc) and enriched by other subjects.



Overview (topics)

To meet our curriculum intent, we deliver much of the curriculum through topics which have four elements:



Overview (key points)

Rationale

Our curriculum has been designed following extensive consultation with teachers and children. Various models of curriculum were critiqued before settling on the following plans for curriculum implementation. Leaders took on board views, but also were very mindful of ensuring a broad and balanced learning experience eg in History, a balance of British and world history units across each phase which promote a greater depth of understanding of events in Britain and globally. The structure adopted (page 9) is one that offers many benefits.

In terms of children's learning, the single-subject driver for topics:

- helps to avoid cognitive overload
- enables children to learn more deeply
- presents opportunities for extended writing stemming from the deeper learning
- enables strong formative assessment, and allows for teachers to act on the assessments and pupils to act on feedback
- promotes a love of learning in that children can discover a real love of learning for the current subject

In terms of teaching, the single-subject driver:

- enables leaders to provide effective support through CPD on a half-termly basis; in primary school settings where teachers teach a full range of subjects, some of which are outside their main areas of expertise, it is important to address this so that teachers have good knowledge of the subject and topics they teach
- supports collaboration in terms of planning and therefore reduces workload
- means that there are fewer subjects to resource and prepare for, which again helps to reduce workload

In the structure set out (page 9), there is what appears to be a relatively long gap between subjects. However, we make sure we build in lots of re-cap sessions and cross-curricular learning to support children in remembering what's been learnt. Also, the deeper learning that's possible because of the single-subject driver is intended to support retention.

We continually review the curriculum, evaluating its impact on children's learning over time.

A two-year cycle

In Sphere Federation schools, teachers work in three different phases to plan and deliver the curriculum: Years 1 and 2, Years 3 and 4 and Years 5 and 6. There are various benefits of this, which include:

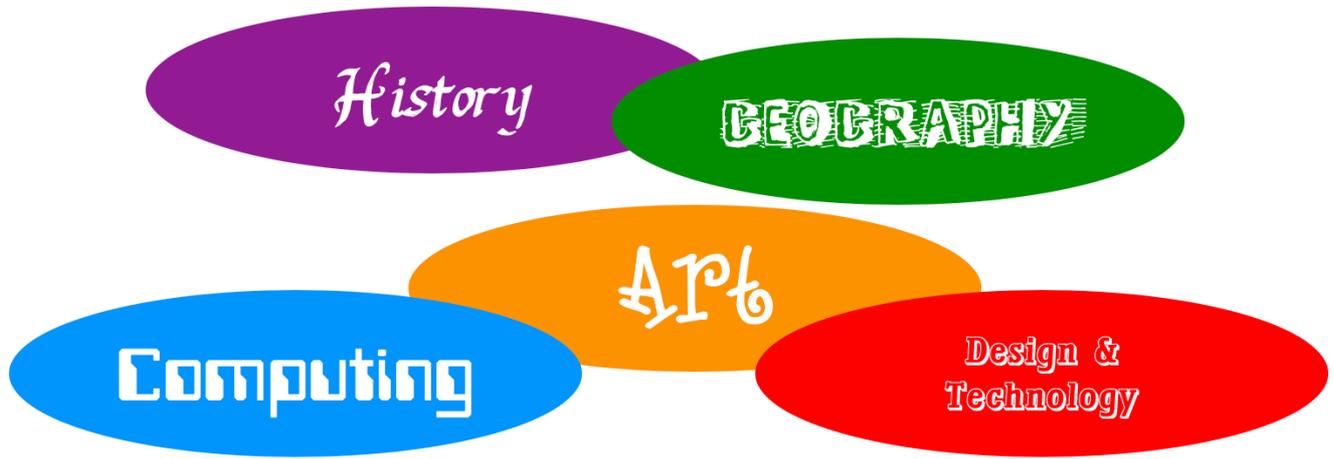
- teachers can share ideas and skills when planning and delivering topics
- teachers can provide different areas of subject expertise
- a common topic creates a talking point or 'buzz' for conversations in school
- classes might swap teachers or combine to work with other children
- there are economies of scale when organising visits out or visitors into school
- to help reduce teachers' workload, a problem increasingly recognised by the Department for Education and Ofsted (eg School inspection handbook: Handbook for inspecting schools in England under section 5 of the Education Act 2005, November 2019)

As a result, we operate a two-year rolling programme of topics, with some topics in Cycle A, some in Cycle B. This means that some children will encounter a topic when in Year 3, for example, and other children when in Year 4. The age-related expectations are the same for both year groups in the phase (see appendix). Teachers will differentiate to meet the needs of all pupils so that by the time they leave a phase, they will have met the expectations. This means that the learning in a Year 3 child's book might look similar to that of a Year 4 child's book, but it may have been delivered and supported in a different way.

An advantage of a two-year cycle is that children learn some age-related expectations in one year and then secure their learning in the following year – an opportunity to reinforce, to provide for even greater 'mastery' of the learning; and an opportunity to go deeper with the learning, to use and apply their learning in more situations.

(Incidentally, the National Curriculum doesn't specify year groups for foundation subjects such as history and geography.)

Curriculum drivers



The drivers for the topics are one of the following:

- History (one half-term as a driver in Year A; two half-terms in Year B)
- Geography (two half-terms as a driver in Year A; one half-term in Year B)
- Computing (one half-term as a driver each year)
- Art (one half-term as a driver each year)
- Design Technology (one half-term as a driver each year)

Reading, Writing and Maths



Reading and Writing (part of the English curriculum) and Maths are core subjects with a great deal of content. We've a short document for each which, like this Curriculum Statement, sets out our intent, implementation and impact, and lists our age-related expectations for each year group, too. In this Curriculum Statement, we've set out more about how reading in particular is an integral part of our topics.

Curriculum enrichers



These subjects are all additional foundation subjects. They can help to enrich any of the topics we implement, but they are also taught in a discrete way.

For example, PSHE (Personal, Social, Health and Economic Education, and referred to in our schools as 'Living and Learning') will enrich the learning experiences of children during a Computing topic in that they will develop respectful

relationships and learn more about careful online relationships and internet safety and harms. However, most aspects of the PSHE curriculum will be taught in a dedicated weekly Living and Learning session.

Similarly, RE (Religious Education) is taught in a dedicated session. We use the agreed syllabus for RE in Calderdale, Kirklees and Leeds, 'Believing and Belonging in West Yorkshire' (2019-2024).
(At St James' CE Primary, there is a denominational requirement to provide a certain proportion of teaching from the religious designation because the school is a voluntary controlled Church of England school.)

Spiritual, moral, social and cultural development (SMSC)

The National Curriculum states: 'Every state-funded school must offer a curriculum which is balanced and broadly based and which: promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society' (2.1, p5).

We promote SMSC through our whole-school ethos, effective relationships throughout the school, assemblies (St James' CE Primary: *collective worship*), and other curriculum activities. National Curriculum subjects provide opportunities to promote SMSC, too. Explicit opportunities are provided in Religious Education and in Living and Learning (nationally referred to as Personal, Social and Health Education or PSHE and citizenship).

An example of how one subject – Science – can promote SMSC:

- ☛ spiritual: developing a sense of awe and wonder at the complexity and pattern in natural phenomena
- ☛ moral: looking at good and bad uses of drugs; moral issues in the human food chain
- ☛ social: looking at ways in which the environment needs protection
- ☛ cultural: scientific development in relation to others – water supplies, new varieties of flowers and food crops

Special educational needs and/or disabilities (SEND)

All three schools in Sphere Federation are inclusive and are committed to meeting the needs of children with SEND in **the most effective way** so that they achieve **the best possible outcomes**:

- ☛ we want pupils with SEND to acquire the knowledge and skills they need to reach their full potential,
- ☛ to be ready for the next stage in their education and,
- ☛ ultimately, to succeed in life.

To do this, we adapt how we implement the curriculum to meet the needs of pupils with SEND so that we can develop their knowledge, skills and abilities to apply what they know and can do with increasing fluency and independence. The adaptations we make are appropriate and reasonable, and are made in accordance with the Equality Act 2010 and the SEND code of practice.

Flexibility and freedom

In specific circumstances (such as where there is a significant event nationally/globally that merits consideration eg a natural disaster in the news), teachers may choose to deviate a little from the topic. This is important as it provides opportunities for teachers to explore other aspects of learning within or beyond the curriculum – learning which is more spontaneous in that it meets children's questions, needs and interests in a responsive, more 'organic' way.

This corresponds to two of our Curriculum Aims (layer 3 of the pyramid shown on page 1):

- ☛ being **relevant**, so that we can respond to local, national and world events which help to build up 'the knowledge and cultural capital they need to succeed in life.' (School inspection handbook: Handbook for inspecting schools in England under section 5 of the Education Act 2005, November 2019, point 178, p43)
- ☛ being **creative**, so that we can respond to children's interests and questions in a way which provides an even richer source of knowledge and skills.

Class novels

In every class, reading has a high profile. This includes a class novel (or other shared text). Our topics will be supported and enriched by quality texts. These might be class novels, extracts from quality texts, shorter picture books (a wide variety of 'mature picture books' are available), poetry and non-fiction texts. These texts will complement/contextualise the learning of the topic's driving subject. The topics aim to show children the links between a text and the wider world, and – importantly – promote a love of reading.



Topics: vocabulary

Within each topic (and in Science), there are key subject-specific words/phrases that we want our children to know.

- ☛ At the start of the topic, there is a 'class assessment' where teachers introduce the key vocabulary and gauges the knowledge and understanding of the words for the class as a whole.
- ☛ Throughout the topic, these words are taught and used often. For example, children might review/revise/re-cap key vocabulary at the start of each topic lesson (vocabulary might relate to previous as well as current topics).
- ☛ At the end of the topic, children demonstrate their knowledge and understanding of the vocabulary. They may also use and apply the words in sentences or in a topic review of some sort (eg some writing, a video presentation).

Challenge and deeper learning

Across all subjects, teachers provide opportunities for challenge and deeper learning. Pupils benefit from this: whoever needs it, in whatever lesson. Sometimes, the challenge may not be evident in books; for example, challenge might be provided by less support during the teacher input; an additional, practical task that isn't recorded; and teacher questioning which is targeted to meet the needs of different pupils. Often, there is evidence in books of challenge for pupils: for example, teacher feedback which provides an additional task or thought-provoking question; an open-ended activity that promotes reasoning; and 'flipping over' the learning or activity by considering the opposite or reverse (eg by coming up with their own questions or criteria).

Our curriculum implementation: Long-term plans continues below, after content on curriculum impact.

How we evaluate impact

We evaluate the impact of our curriculum in the following ways:

Pupil achievement and progress

We measure pupil achievement – the acquisition of knowledge and skills – and progress using a number of strategies, including:

- on-going teacher assessments, based on questioning in class, observations and pupil outcomes (which includes their work in books), supported by moderation in school, across Sphere Federation and externally with other schools and with the local authority
- at the end of each topic and Science unit, pupils complete online assessments which provide us with information about impact and this informs next steps
- pupils' acquisition of vocabulary and knowledge through book scrutinies, learning conversations and learning walks



In Science, at the end of the year, there is a more formal assessment and data is submitted to senior leaders who track attainment and progress to measure impact.

In foundation subjects, teachers do similar: they continually assess children's learning which informs their subsequent teaching. At the end of a topic, teachers will make a summative assessment, indicating if children are 'currently working below', 'working towards', at 'expected' or at 'greater depth' in a subject. These are then reviewed and finalised at the end of the school year for all foundation subjects.

Scrutiny of progress in books and learning conversations with children are key ways to assess impact. We explore how successful our children have been in acquiring knowledge and skills in relation to their stage of learning. In conversations with children, teachers and school leaders will ask questions relating directly to age-related expectations and to times when they might have needed more support or when they experienced greater challenge.

Lesson visits and the monitoring of planning support our assessment of impact.

Whole school areas for development are identified as a result of evaluating the impact of what we do.

Pupil attitudes

We measure pupil attitudes using a number of strategies, including:

- feedback during learning conversations and in pupil and parent/carer surveys
- attitudes and behaviour in lessons across the curriculum
- the quality of the work they produce, including taking pride in presentation
- attendance and punctuality

To support us in this, we refer back to Layer 3 of our curriculum intent: Attitudes. Children, particularly older children, will be encouraged to reflect on and self-assess their learning in terms of enjoyment, relevance, inspiration and creativity. We'll ask questions such as:

enjoyable	relevance	inspiring	creative
My favourite part of the learning was... because...	This is connected to my life because...	The person we learnt about was inspiring because...	I was able to show creativity when... because...
I enjoyed this lesson because...	In my career, I will use this because...	A question I've been inspired to ask is... because...	This learning was creative because...
I felt happy when... because...	I can use this knowledge in future when... because...	This made me think of... because...	I could have done this differently by...
This lesson was ___/10 enjoyable because...	This learning was relevant to me because...	I achieved today because...	A diagram of this learning could be...

Long-term plans for topic

The topic plan for each phase is set out below.

Cycle A are 'odd years': 2021-22, 2023-24... and Cycle B are 'even': 2022-23, 2024-25...

half-term	Year 1 and Year 2		Year 3 and Year 4		Year 5 and Year 6	
	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Autumn 1	Geography: <i>Where in the world am I?</i> (British geography and fieldwork)	History: <i>Great Fire of London</i> (Events beyond living memory; with reference to local history)	Geography: <i>Where in the world am I?</i> (British geography and fieldwork)	History: <i>Ancient Greece</i>	Geography: <i>Where in the world am I?</i> (British geography and fieldwork)	History: <i>Stone Age to Iron Age</i> <i>Ancient Egypt</i>
Autumn 2	Art <i>drawing</i> <i>painting</i> printing (key focus) featured artists: <i>Paul Klee</i> (modern artist) contrasting with Leonardo da Vinci (Renaissance artist)	Art <i>drawing</i> <i>painting</i> sculpture (key focus) featured artists: Bridget Riley (op art) contrasting with Georges Seurat (pointillism)	Art <i>painting</i> collage (key focus) featured artists: Martha McDonald Napaltjarri (traditional native Australian) contrasting with Wassily Kandinsky (abstract)	Art <i>drawing</i> digital art (key focus) featured architects: Sir Christopher Wren contrasting with Zaha Hadid	Art <i>painting</i> sculpture (key focus) featured artists: Barbara Hepworth , Henry Moore (both modernist, abstract / semi-abstract sculptors) and Thomas J Price	Art <i>drawing</i> printing (key focus) featured artist: William Morris (Victorian designer) contrasting with Orla Kiely (current designer)
Spring 1	History: <i>Shopping</i> (Changes within living memory; with reference to local history)	Geography: <i>Environment / Natural disasters</i> <i>'The streets around our school'</i> primary focus: environmental issues	History: <i>Romans</i> <i>Anglo-Saxons</i>	Geography: <i>Environment / Natural disasters</i> primary focus: volcanoes and/or earthquakes	History: <i>Vikings</i> <i>The Islamic Golden Age</i> (Early non-European civilisation)	Geography: <i>Environment / Natural disasters</i> primary focus: climate change
Spring 2	Computing primary focus: programming	Computing primary focus: programming	Computing primary focus: programming	Computing primary focus: programming	Computing primary focus: programming	Computing primary focus: programming
Summer 1	Geography: <i>Explorers</i> (Contrasting locations: UK and non-Europe)	History: <i>'Heroes'</i> (Lives of significant individuals – civil rights; including <i>Leonora Cohen</i> , local suffragette)	Geography: <i>Explorers</i> (Contrasting locations: UK and Europe)	History: <i>Leeds over time</i> (Local history)	Geography: <i>Explorers</i> (Contrasting locations: UK and the Americas)	History: <i>World War II</i> inc evacuees and refugees, and <i>Leeds at war</i> (Study of an aspect or theme)
Summer 2	Design & Technology primary focus: textiles	Design & Technology primary focus: construction	Design & Technology primary focus: textiles	Design & Technology primary focus: construction	Design & Technology primary focus: textiles	Design & Technology primary focus: construction



Reading as an integral part of our topics

When reading cross-curricular texts, teachers support children to read as a 'subject expert' (reading, for example, as a scientist / historian etc). This role will help them to focus on foundation subject knowledge and skills. (For the biggest impact, teachers focus on one or two of the points, rather than all at once.)

Reading as a...		
scientist (closely matching our working scientifically skills)	historian	geographer
<ul style="list-style-type: none"> • What scientific questions can you ask about this text? • What scientific questions does this text answer? • Can you visualise what this text is describing? • Can you draw diagrams based on the text? • Can you find and evaluate information in the text? • What are the similarities, differences or changes explained in the text? • What does the data show us? • Can you explain this science? • What conclusions can we draw from the text? • Why has the author chosen to present this information in this way? (ie diagram, bold, text) 	<ul style="list-style-type: none"> • What's the source of this text? When was it written? By whom? Why? What is their likely intent or viewpoint? How much should we trust it? Is it primary or secondary? • What's the context of the text? What time period was it written in? What was happening at the time that might impact on this evidence? • Can anything corroborate this evidence? Is there a different source that can back it up or that has an opposing view? • Why has the author chosen to present this information in this way? (ie diagram, bold, text) 	<ul style="list-style-type: none"> • What geographical vocabulary is being used? • Can I find this location on a map? If so, where? • What do I know already about the locations mentioned? • What geographical features are mentioned/shown? • How is this place similar or different to others that I know? • What human influences are mentioned in the text? • How have these places been influenced by humans? How can you tell? • Why has the author chosen to present this information in this way? (ie diagram, bold, text)
artist	designer or technician (the process of designing and making)	programmer
<ul style="list-style-type: none"> • What art vocabulary is being used? • What do I already know about the technique being described? • Can I visualise the process being described? • What sounds like the most difficult part? Why? Is it realistic to do? • Is there a better guide elsewhere? • What could I do differently? Why? 	<ul style="list-style-type: none"> • What technology vocabulary is being used? • What do I already know about the techniques being described? • What techniques, materials, equipment and tools have been described in the text? Why? • Can I visualise the process being described? • What sounds like the most difficult part? Why? Is it realistic to do? • Why has the author chosen to present this information in this way? (ie diagram, bold, text) • Is there a better guide elsewhere? • What could I do differently? Why? 	<ul style="list-style-type: none"> • What technical vocabulary is being used? • What do I already know about the programming being described? • Will it work? Why/why not? • What sounds like the most difficult part? Why? Is it realistic to do? • How has the author broken the task down into smaller steps? • What could I do differently? Why?
art 'audience'	design 'appreciator'	(safe) internet user
<ul style="list-style-type: none"> • Before I read this text, what are my views or thoughts about the piece of art or artist? • What is purpose of the text? To give me background information? To help me understand the art? To persuade me to like it? • Does the text help me to appreciate the art or artist? How? • Now that I've read the text, have my views or thoughts changed? How? Why? • Does it inspire my creativity? 	<ul style="list-style-type: none"> • Before I read this text, what are my views or thoughts about the piece of design, designer or product? • What is purpose of the text? To give background information? To help me understand the design or designer? To persuade me? Does the text help me to appreciate the design or product? How? • Now that I've read the text, have my views or thoughts changed? How? Why? • Does it inspire my creativity? 	<ul style="list-style-type: none"> • Is this content safe? How do you know? Is it something I've used before? Do I know the author or trust the website? • What is the purpose of the text? Is it trying to persuade me to do something or change my mind? If so, I need to be careful. • Is this content positive, negative or neutral? • Is the content and/or author trustworthy and reliable? How do I know? How can I check this? What else could I read to check it? <p>See age-related expectations for Staying safe online for more.</p>

Long-term plans for Science

Our long-term plan for Science is shown below. Like the 'topic driver subjects' (History, Geography, Computing, Art and Design and Technology), the Science curriculum is delivered across a two-year cycle. However, Science is a core subject of the National Curriculum; it is taught in at least one dedicated lesson each week. There is scope, however, for the same links to and from English and Maths (see p2), and for Science to be included within a topic lesson as an enricher (see p3).



Each class in a phase teaches the same science unit at the same time, allowing collaborative planning and sharing of resources and enrichment opportunities.

In the table, the National Curriculum unit and associated year group is noted, but in a two year programme, these sometimes appear in the other phase's year group. Small italic text refers to a corresponding Switched on Science resource title – a published scheme we 'lightly' refer to. See below for more information about the white 'Working Scientifically' units and the featured scientists.

half-term	Year 1 and Year 2		Year 3 and Year 4		Year 5 and Year 6	
	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Autumn 1	Chemistry Everyday Materials (Y2) <i>Materials Monster</i> <i>Squash, Bend, Twist and Stretch</i> <i>featured scientist:</i> <i>Charles Macintosh</i>	Biology Living Things and Their Habitats (Y1)	Chemistry States of Matter (Y4) <i>Looking at States</i>	Biology Living Things and Their Habitats (Y4) <i>Living Things</i> <i>featured scientist:</i> <i>Jane Goodall</i>	Chemistry Properties and Changes of Materials (Y5) <i>Material World</i>	Biology Living Things and Their Habitats (Y6) <i>Classifying Living Things</i> <i>featured scientist:</i> <i>Carl Linnaeus, Sarah Fowler</i>
Autumn 2	Working scientifically <i>(eg current event, STEM project)</i>	Working scientifically <i>(eg current event, STEM project)</i>	Physics Light (Y3) <i>Light and Shadows</i>	Physics Sound (Y4) <i>What's That Sound?</i> <i>featured scientist:</i> <i>Alexander Graham Bell</i>	Physics Light (Y6) <i>Light</i> <i>featured scientist:</i> <i>Alhazen</i>	Physics Forces (Y5) <i>Let's Get Moving</i> <i>featured scientist:</i> <i>Isaac Newton, Galileo Galilei</i>
Spring 1	Biology Seasonal Changes (Y2) <i>featured scientist:</i> <i>George James Symons</i>	Chemistry Everyday Materials (Y1) <i>Celebrations</i> <i>featured scientist:</i> <i>John Dunlop, Patsy Sherman</i>	Physics Electricity (Y4) <i>Power It Up!</i> <i>featured scientist:</i> <i>Maria Telkes</i>	Chemistry Rocks (Y3) <i>Rocks, soils and fossils!</i> <i>featured scientist:</i> <i>Mary Anning</i>	Biology Evolution and Changes of Inheritance (Y6) <i>Evolution and Inheritance</i> <i>featured scientist:</i> <i>Charles Darwin</i>	Physics Earth and Space (Y5) <i>Out of this World</i> <i>featured scientist:</i> <i>Helen Sharman, Maggie Aderin-Pocock</i>
Spring 2	Working scientifically <i>(eg current event, SoS Holiday or STEM project)</i>	Working scientifically <i>(eg current event, SoS Little Masterchefs or STEM project)</i>	Working scientifically <i>(eg current event, SoS The Nappy Challenge or STEM project)</i>	Working scientifically <i>(eg current event, SoS The Big Build or STEM project)</i>	Working scientifically <i>(eg current event, SoS Amazing Changes or STEM project)</i>	Working scientifically <i>(eg current event, SoS The Titanics or STEM project)</i>
Summer 1	Biology Plants (Y1) <i>featured scientist:</i> <i>Jeane Baret</i>	Biology Plants (Y2) <i>Young Gardeners</i>	Biology Plants (Y3) <i>How Does Your Garden Grow?</i> <i>featured scientist:</i> <i>Sir Joseph Banks, Tom Hart-Dyke</i>	Physics Forces and Magnets (Y3) <i>Forces and Magnets</i>	Physics Electricity (Y6) <i>Electricity!</i> <i>featured scientist:</i> <i>Thomas Edison, Nikola Tesla</i>	Biology Living Things and Their Habitats (Y5) <i>Circle of Life</i> <i>featured scientist:</i> <i>Sir David Attenborough</i>
Summer 2	Biology Animals including Humans (Y1) <i>Who Am I?</i> <i>featured scientist:</i> <i>George Mottershead</i>	Biology Animals including Humans (Y2) <i>Healthy me</i> <i>featured scientist:</i> <i>Florence Nightingale</i>	Biology Animals including Humans (Y3) <i>Food and our Bodies</i> <i>featured scientist:</i> <i>Marie Curie</i>	Biology Animals including Humans (Y4) <i>Teeth and Eating</i> <i>featured scientist:</i> <i>Washington Sheffield</i>	Biology (RSE) Animals including Humans (Y5) <i>Growing up and growing old</i> Biology Animals including Humans (Y6) <i>Healthy Bodies</i> <i>featured scientist:</i> <i>Marie Maynard-Daly</i>	Biology (RSE) Animals including Humans (Y5) <i>Growing up and growing old</i> Biology Animals including Humans (Y6) <i>Healthy Bodies</i> <i>featured scientist:</i> <i>Marie Maynard-Daly</i>

Working scientifically

Working scientifically skills are embedded within lessons. This allows children to revisit and secure these skills across a unit, year and phase. Typically, there is sufficient time within the Science curriculum for children to plan and develop their own investigations. For example, an enquiry in Y3/4 about the freezing points of different liquids may be developed by children into a subsequent activity which investigates if the freezing points change when the liquids are mixed together. There is also a 'free' science unit in each cycle for teachers to plan science which is not driven by the National Curriculum; instead, the unit is derived from some other prompt:

- the children's interests
- reaction to a current event eg vaccinations stemming from the coronavirus pandemic
- a STEM ambassador project eg Polar Explorers

Featured scientists

Across Key Stage 1 and 2, there are 27 featured scientists. The scientists we've chosen represent diversity across a range of different scientific fields. Some are especially known – Alexander Graham Bell and Charles Darwin. Others are less well-known but just as inspiring – female scientists and scientists from a non-white background, contemporary scientists as well as celebrated pioneers from the past.

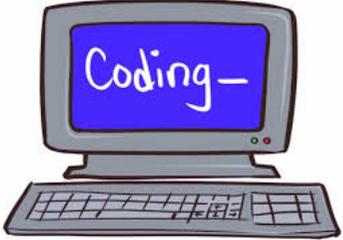
Age-related expectations: Art

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know the difference between drawing pencils (eg 2H, HB, 2B). I know the primary and secondary colours. I know some famous artists and can comment on their work (eg Paul Klee contrasting with Leonardo da Vinci; Bridget Riley contrasting with Georges Seurat). 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know the difference between drawing pencils (eg 2H, HB, 2B), paints (eg poster and watercolour) and pastels (eg chalk and oil). I know and understand the colour wheel (specifically, primary/secondary colours, complementary colours and hot/cold colours). I know a growing number of famous artists (including designers and architects) and can comment on their work, including similarities and differences (eg as previous, plus Martha McDonald Napaltjarri contrasting with Wassily Kandinsky; Sir Christopher Wren contrasting with Zaha Hadid). 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know the difference between drawing pencils (eg 2H, HB, 2B), paints (eg poster and watercolour) and pastels (chalk and oil); and know their effect including when talking about famous art. I know a wide range of famous artists (including designers and architects) and can comment on their work, including similarities and differences and making reference to visual and tactile elements (eg as previous, plus Barbara Hepworth and Henry Moore contrasting with Thomas J Price, William Morris contrasting with Orla Kiely). I have an understanding of how art has changed over time (making reference to historical skills and concepts such as chronology, change and continuity, and cause and effect to help with this understanding).
<p>Skills</p> <ul style="list-style-type: none"> I can use some processes to create drawings, paintings and other art. I can draw an object from direct observation with some accuracy. I can use different media (eg pencil, paint). I can use some visual and tactile elements: colour, pattern, texture. 	<p>Skills</p> <ul style="list-style-type: none"> I can use a range of processes to create art (eg drawings, paintings, sculpture, collage, printing, e-art and textiles). I can draw an object from direct observation with growing accuracy. I can use a range of media with some control (eg pencil, paint, pastel, charcoal). I can use visual and tactile elements (eg colour, pattern, texture, line, shape, form and space). 	<p>Skills</p> <ul style="list-style-type: none"> I can use a range of processes with success to create art (eg drawings, paintings, sculpture, collage, printing, e-art and textiles). I can draw an object accurately from direct observation. I can select and use a range of media with control (eg pencil, watercolours, poster paint, chalk pastel, oil pastel). I can use visual and tactile elements to achieve my intentions (eg colour, pattern, texture, line, shape, form and space). I can mix paint effectively to achieve a desired colour.

Age-related vocabulary: Art

Years 1 and 2	Years 3 and 4	Years 5 and 6
Cycle A and B <ul style="list-style-type: none"> • graphite: mixed with clay, graphite forms the 'lead' in a pencil • HB: referring to pencils, HB stands for 'hard black' – a medium hard pencil • H: stands for 'hard' • B: stands for 'black'; these pencils are soft • primary colours: three colours (red, yellow, blue) that can't be made by mixing other colours, but can make other colours • secondary colours: three colours (orange, green, purple) that are made when two primary colours are mixed using paint • pattern: arrangements of things such as colour, shapes and lines that repeat in a logical way • texture: how something feels, like smooth or rough 	Cycle A and B <ul style="list-style-type: none"> • complementary colours: colours that are opposite on the colour wheel (roughly, a primary and a secondary colour can be paired up like this) • warm colours: roughly one half of the colour wheel, warm colours (like red, orange, yellow) usually represent heat and emotions like anger and excitement • cool colours: roughly one half of the colour wheel, cool colours (like blue, green, purple) usually represent cold things and emotions like calm and sadness • form: often used to talk about sculpture or the human body, form is the physical aspects or the shape of the artwork or parts of the artwork • space: usually used to describe areas or parts of an artwork where there are large blocks of colour or 'gaps' • medium: the type of art (eg painting, sculpture, printmaking), or the materials an artwork is made from (plural: media) 	Cycle A and B <ul style="list-style-type: none"> • pastel: a coloured drawing medium, usually stick-shaped, produced in soft, hard and pencil form produced in soft, hard and pencil form • art: the expression of creativity or imagination, or both • art movement: a style in art followed by a group of artists, often linked to a time and place or to particular artists (sometimes called an 'ism')
Cycle A <ul style="list-style-type: none"> • shape: a two-dimensional area which may be created using lines or colour • tone: how light or dark a colour is 	Cycle A <ul style="list-style-type: none"> • collage: the technique and the resulting artwork where things like pieces of paper, photographs and fabric are arranged and attached to a surface • mixed media: artworks created from a combination of different media or materials • abstract art: a type of modern art that is not an accurate depiction but instead use shapes, colours, forms and marks to achieve its effect • figurative art: art that has strong references to the real world and in particular, the human figure 	Cycle A <ul style="list-style-type: none"> • sculpture: three-dimensional art made by one of four basic processes: carving, modelling, casting, constructing • negative space: the space around and between the subject • maquette: a sculptor's initial model or sketch • modern art: art that is often experimental and not traditional (1900s onwards approximately) • classical art: used to describe art that makes reference to ancient Greek or Roman style
Cycle B <ul style="list-style-type: none"> • op art: short for 'optical art', op art is a style of art that uses visual illusions • pointillism: a form of painting where very small dots are used to form colours and images 	Cycle B <ul style="list-style-type: none"> • digital art: art that is made or presented using digital technology • architecture: a specific form of design: buildings and other structures 	Cycle B <ul style="list-style-type: none"> • printing: transferring ink (or some other medium) from one surface to another • Arts and Crafts Movement: a design movement started by William Morris in 1861 which aimed to improve the quality of design and make it available to the widest possible audience • graphic design: covers a range of design activities including logo creation, advertising and typography (fonts)

Age-related expectations: Computing

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and other learning</p> <p>Programming</p> <ul style="list-style-type: none"> I know what an algorithm is and that digital devices use them. I know that algorithms need clear, precise instructions to work effectively. <p>Digital literacy</p> <ul style="list-style-type: none"> I know that there are search engines to help find information. I know that technology is used beyond school and I can give some examples. 	<p>Knowledge and other learning</p> <p>Programming</p> <ul style="list-style-type: none"> I know what an algorithm is and that computer programmers strive to make them as simple as possible, using concepts like repetition to do this. <p>Digital literacy</p> <ul style="list-style-type: none"> I know what a computer network (eg the school network) is and some of the devices that are connected to a network (eg talk about the school network). I know there are different search engines and can compare how results are selected and ranked. I know and understand how at least one key individual (eg Lovelace, Turing, Berners-Lee) has helped shape the world of computing. 	<p>Knowledge and other learning</p> <p>Programming</p> <ul style="list-style-type: none"> I know that computer simulations are used to model a real-world or imaginary situation (eg NASA simulating take-offs and landings; responses to natural disasters). <p>Digital literacy</p> <ul style="list-style-type: none"> I know computer networks, like the internet, provide services and offer opportunities for communication and collaboration. I know there are different search engines and can evaluate them, showing an awareness of how results are selected and ranked. I know the difference between the Internet and the World Wide Web. I know and understand the impact of some key individuals (eg Lovelace, Turing, Berners-Lee).
<p>Skills</p> <p>Programming</p> <ul style="list-style-type: none"> I can create and debug simple programs. I can look at an algorithm and use logical reasoning to predict what will happen when it is executed. <p>Digital literacy</p> <ul style="list-style-type: none"> I can create digital content (eg take photographs for a specific purpose; use software to create artwork; use a child-friendly word processor). I can store and retrieve digital content (eg locate a photo just taken on an iPad; open a file saved on the school network; give created content a suitable name; save a document correctly). I can manipulate digital content (eg when taking photographs, select the most appropriate and delete others; edit photographs within the app or using a second app; when using art software, delete or change aspects). 	<p>Skills</p> <p>Programming</p> <ul style="list-style-type: none"> I can design, write and debug programs that accomplish specific goals. I can use repetition in programs. I can use sequence and selection in programs (eg if..., then...). I can work with a range of inputs and outputs (eg visual photos or videos; audio sounds or sound effects). I can use logical reasoning to explain how algorithms work and to debug (ie detect and correct errors). I can solve problems by decomposing them into smaller parts (eg if creating a maze game, break the task up into a number of steps: design and create the maze, design and then program the main sprite or character, program other characters or features of the game). <p>Digital literacy</p> <ul style="list-style-type: none"> I can use search technologies effectively and can evaluate results. I can create digital content and programs by using different software and different digital devices. 	<p>Skills</p> <p>Programming</p> <ul style="list-style-type: none"> I can design, write and debug programs that accomplish specific goals, including controlling physical systems or simulating physical systems (eg robots, motors, sensors or animation of the water cycle or a simulation of how the moon orbits the Earth). I can more efficiently write programs that include repetition, sequence and selection. I can use variables in programs (eg timer, score, health). I can work with a wider range of inputs and outputs (eg motors, motion sensors, noise sensors). I can use logical reasoning to enhance algorithms in some way (eg to make a game more or less challenging). I can solve increasingly complex problems by decomposing them into smaller parts. <p>Digital literacy</p> <ul style="list-style-type: none"> I can be discerning in evaluating digital content. I know that using someone else's digital content without their consent and passing it off as my own is plagiarism. I can create digital content and programs by combining different software and different digital devices (eg combining video, audio and images in a movie or presentation, creating an animation on Scratch with music, sound effects, text). I can use digital devices to collect data and then use it to answer questions or solve problems (eg using data loggers or sensors).

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
Staying safe online	Staying safe online	Staying safe online
<p><i>These statements derive from 'Teaching online safety in school' (DfE, 2019) and DfE guidance on Relationships Education and Physical Health and Mental Wellbeing (DfE, 2020). Teachers will promote online safety by covering aspects of what is set out here. We strongly encourage all parents/carers to help their child at home to stay safe online. We include the content here to support parents.</i></p>		
<p>Age restrictions</p> <ul style="list-style-type: none"> I know that some online activities have age restrictions because they have content which is not appropriate. <p>Digital content</p> <ul style="list-style-type: none"> I am beginning to understand what a digital footprint is. I know that I should ask for consent before taking photographs of other people. <p>Misinformation, disinformation and hoaxes</p> <ul style="list-style-type: none"> I know that I shouldn't believe everything I see or read online. I know risks associated with people I have never met. <p>Fake websites and scam emails</p> <ul style="list-style-type: none"> I know that some websites have secure markings (eg padlock symbol next to URL) that makes them more trustworthy. <p>Password safety</p> <ul style="list-style-type: none"> I know that passwords are important and that we should keep them to ourselves. <p><i>continued...</i></p> 	<p>Age restrictions</p> <ul style="list-style-type: none"> I know that some online activities have age restrictions because they have content which is not appropriate. I know why age restrictions exist and how the content may be damaging to under-age consumers. <p>Digital content</p> <ul style="list-style-type: none"> I understand what a digital footprint is. I understand the significance of my digital footprint and I think carefully about what I post online as it is difficult to remove. I know that I need to get consent before I post anything about another person (eg photos, videos). <p>Misinformation, disinformation and hoaxes</p> <ul style="list-style-type: none"> I know that I shouldn't believe everything I see or read online. I know that some people or groups may mistakenly share false information (ie misinformation) or deliberately deceive (ie disinformation). <p>Fake websites and scam emails</p> <ul style="list-style-type: none"> I know that some websites have secure markings (eg padlock symbol next to URL) that makes them more trustworthy. I know that fake websites and emails are sometimes used to get personal information, photos, money and other data. <p>Password safety</p> <ul style="list-style-type: none"> I know that passwords are important and that we should keep them to ourselves. I can explain what is and isn't a secure password. <p><i>continued...</i></p>	<p>Age restrictions</p> <ul style="list-style-type: none"> I know why age restrictions exist and how the content may be damaging to under-age consumers. I know that the minimum age at which children can agree to share information and use social media is 13. <p>Digital content</p> <ul style="list-style-type: none"> I know that we need to be aware of our digital footprint and think carefully about what we post online as it is difficult to remove, and that this could have a detrimental impact in the future (eg career). I know that posting something online about another person without their consent is wrong and can be very damaging. I know that online content is shared quickly online and that this can be both positive and negative. <p>Misinformation, disinformation and hoaxes</p> <ul style="list-style-type: none"> I know that some people (or fake profiles and 'bots') or groups may share false information to deliberately deceive or may mistakenly share false information. I know the potential consequences of sharing information that may not be true. <p>Fake websites and scam emails</p> <ul style="list-style-type: none"> I know that fake profiles, websites and emails are sometimes used to persuade eg to get personal information, images, money and other data. I can describe ways to risk assess online (eg does the URL show a padlock next to it, is the website one I've used before, is the email unsolicited, do I know the sender, is the email too good to be true, does the email or website not look quite right). <p>Password safety</p> <ul style="list-style-type: none"> I can explain what is and isn't a secure password. I know that password phishing is the process by which people try to find out passwords so they can access protected content. I know that a 'good company' would never ask you to share your full password. <p><i>continued...</i></p>

Personal data

- I know that I'm too young to share personal information (eg full name, address, school, age) online.

Persuasion

- I know that there are adverts online which, if clicked on, may take me away from the page I'm looking at.

Online vs. offline behaviours

- I know that people should treat others respectfully when they are online.
- I know that people sometimes behave differently online, including by pretending to be someone they are not.
- I know how and when to seek support including which adults to speak to in school if I'm worried about something online.

Impact on quality of life

- I know that being online too much and some online behaviours can affect my mental health.
- I know that being online offers lots of positives but that there needs to be a balance between time being spent on and offline.

**Personal data**

- I know I have the right to give consent for my personal data to be used by a company and I have the right to withdraw that consent.
- I know that some online activities require some of my personal information before I can access them but I should check with a trusted adult before I give consent to share this information.

Persuasion

- I know that an online search may show a paid for result and/or adverts.
- I know that there are adverts online which, if clicked on, may take me away from the page I'm looking at.
- I know that pop-up adverts may persuade me to buy something or download something and I know how to get rid of them.

Online vs. offline behaviours

- I know that we should treat others respectfully when we are online, even when we are anonymous, because I am aware of the possible effect of my online actions.
- I know that online friendships are often not as they seem, and there are risks associated with people I have never met.
- I know what good online behaviours do and don't look like and know what to do if I see bad online behaviour.

Impact on quality of life

- I know there needs to be a balance between time being spent on and offline.
- I know that time spent online means less time to do other activities and that this can lead to being physically inactive.
- I know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.

Personal data

- I know that some online activities require some personal information before I can access them but I should check with a trusted adult before I give consent to share this information.
- I know that personal data is highly sought by companies and can be 'farmed' in ways that look harmless (eg websites that look like games, online surveys).

Persuasion

- I know that an online search may show a paid for result and/or adverts.
- I know I may see adverts based on what I've been looking at online and cookies help companies do this.
- I know that pop-up adverts may persuade me to buy something or download something and I know how to get rid of them.
- I know that the majority of games and platforms are businesses designed to make money and that their aim is to encourage users to be online for as long as possible to encourage them to spend money or for them to make money through advertising.

Online vs. offline behaviours

- I know that online behaviours should mirror offline behaviours, even when we are anonymous, because I am aware of the possible effect of my online actions.
- I know how and why people are unkind or hurtful online, when they would not necessarily be unkind face to face.
- I can critically think about online friendships, knowing that they are often not as they seem, and there are risks associated with people I have never met.
- I know what to do if I see bad online behaviour, including telling a trusted adult and reporting the behaviour to the platform/app or even the police.
- I know the potential consequences of bad online behaviour (eg hate crime).
- I know that it's ok to step away or say no to bad online behaviour.

Impact on quality of life

- I know there needs to be a balance between time being spent on and offline.
- I understand some of the consequences of spending too much time online (eg physical inactivity, mental health).
- I know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which has a negative impact on mental health.
- I am aware that content online is often unrealistic (eg manipulated images, idealised lifestyles) and that this could have a detrimental impact on mental health.

Age-related vocabulary: Computing

Years 1 and 2	Years 3 and 4	Years 5 and 6
<p>Cycle A and B</p> <ul style="list-style-type: none"> • algorithm: a sequence of instructions or a set of rules to get something done • program: a collection of algorithms • to debug: to find and fix errors in algorithms • computer: a type of machine that can follow instructions and do useful things 	<p>Cycle A and B</p> <ul style="list-style-type: none"> • input: data sent to a computer system from a device (eg keyboard, mouse, microphone) • output: data sent out of a computer system via a device (eg monitor, printer, speaker) • program: a collection of algorithms • repetition: the execution of certain instructions more than once • to sequence: to arrange instructions in a particular order • logical reasoning: helps us explain why something happens • sprite: a 2d character in a computer game • decomposition: the process of breaking down a task into smaller, more-manageable parts 	<p>Cycle A and B</p> <ul style="list-style-type: none"> • program: a collection of algorithms • selection: choosing to execute one set of instructions over another • variable: something that is stored in a program and can be changed or used (eg a timer, a score, a number of lives left) • logical reasoning: helps us explain why something happens • simulation: a model of a real-world or imaginary situation
<p>Staying safe online</p> <ul style="list-style-type: none"> • password: a string of letters, numbers or symbols which give you access to something (eg a computer, a service like Numbots) • personal information: information that can be used to identify you (eg age, school, address, password) • appropriate: something that is suitable • advert: adverts (advertisements) encourage you to buy things • online: a device is online if it is connected to the internet; a person is online if they are using a device connected to the internet • consent: permission 	<p>Staying safe online</p> <ul style="list-style-type: none"> • digital footprint: information about a particular person that exists on the internet as a result of their online activity and is difficult to remove • age-restriction: an age, under or over which, something can or cannot be done • to post: to publish online a piece of writing, image or other item of digital content (this would be called 'a post') • pop-up advert: a form of advertising that suddenly appears ('pops up') when online • anonymous: a person not named or identified • troll: a person who deliberately tries to create conflict in an online community to provoke anger or upset • secure password: a password that is hard to identify by both humans and the computer 	<p>Staying safe online</p> <ul style="list-style-type: none"> • search engine: program that searches for and identifies items on the internet using complex algorithms • internet: made up of computers which are connected to each other around the world • world wide web: 'www' or 'web' for short is a collection of web pages of digital content found on the internet • social media: apps and websites that allow you to connect with people and share information, ideas and opinions • bot: an online 'robot' that performs automated, repetitive tasks, deliberately behaving like a human, but much faster • disinformation: deliberately false information • misinformation: accidentally false information • to phish: to send fake emails that appear to be from reputable companies so that someone might mistakenly share personal information • cookie: websites use cookies to help them remember the web pages you've looked at • hate crime: a crime (eg online abuse and threats) where the perpetrator is hostile towards a victim's protected characteristic

Age-related expectations: Design and Technology

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know that products are designed. Through exploration, I know how products can be made stronger, stiffer or more stable. 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know that products go through a design process before they are made. I know and understand how to strengthen or stiffen structures. I know how electrical circuits are integrated into a product. I know at least one key event (eg the invention of the steam engine, electricity, plastic) in design and technology. I know at least one famous designer (eg Jonathan Ive, Vivienne Westwood, Charles Eames). 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know and understand how to strengthen, stiffen and reinforce more complex structures. I know how electrical circuits / computing principles are integrated into a product. I know and understand how key events (eg the invention of the steam engine, electricity, plastic) and key individuals (eg Isambard Kingdom Brunel, George Stephenson, Lewis Latimer) in design and technology have helped shape the world. I understand how historical restrictions have previously limited the opportunities for some groups (eg women) to be successful designers.
<p>Skills</p> <p>Design</p> <ul style="list-style-type: none"> I can generate, develop and communicate my ideas in different ways (eg by talking, drawing, mock-ups and, where appropriate, information and communication technology). I can design purposeful, functional, appealing products for myself and other users based on given design criteria. <p>Make</p> <ul style="list-style-type: none"> I can select from and use a range of tools and equipment to perform practical tasks (eg cutting, shaping, joining and finishing). I can select from and use a wide range of materials and components, including construction materials, textiles and ingredients. <p>Evaluate</p> <ul style="list-style-type: none"> I can explore and evaluate a range of existing products. I can evaluate my ideas and products against given design criteria. 	<p>Skills</p> <p>Design</p> <ul style="list-style-type: none"> I can generate, develop and communicate my ideas in different ways (eg through discussion, annotated sketches, prototypes and, where appropriate, information and communication technology). I can design purposeful, functional, appealing products for myself and others based on my own design criteria. <p>Make</p> <ul style="list-style-type: none"> I can select from and use a wider range of tools and equipment to perform practical tasks (eg cutting, shaping, joining and finishing). I can select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their function. I can use electrical systems in my products (eg circuits, switches, bulbs, buzzers and motors). <p>Evaluate</p> <ul style="list-style-type: none"> I can evaluate my ideas and products against my own design criteria. I can investigate and analyse a range of existing products. 	<p>Skills</p> <p>Design</p> <ul style="list-style-type: none"> I can generate, develop and communicate my ideas in different ways (eg through discussion; annotated sketches; cross-sectional and exploded diagrams; prototypes; and information and communication technology). I can use research to develop my own design criteria to inform the design of innovative, functional, appealing products that are aimed at particular individuals or groups. <p>Make</p> <ul style="list-style-type: none"> I can select from and use a wider range of tools and equipment to accurately perform practical tasks (eg cutting, shaping, joining and finishing). I can select from and use a wider range of materials and components (including construction materials, textiles and ingredients) according to their function and looks. I can use mechanical systems in my products (eg gears, pulleys, cams, levers and linkages). <p>Evaluate</p> <ul style="list-style-type: none"> I can evaluate my ideas and products against my own design criteria and consider the views of others. I can investigate and analyse a range of existing products with a greater level of scrutiny and critical thought.

Age-related vocabulary: Design and Technology

Years 1 and 2	Years 3 and 4	Years 5 and 6
Cycle A and B <ul style="list-style-type: none"> • design process: the steps that need to happen for something to go from an idea to a finished product • to plan: to think about and decide how you're going to do something • to evaluate: to decide, after careful consideration, how good or bad something is 	Cycle A and B <ul style="list-style-type: none"> • product: something that is designed and made • function: the purpose of something • design brief: a description of what a new product should do • design criteria: the precise features a product must have to be successful • annotated sketch: a detailed sketch labelled with notes (eg dimensions, materials) 	Cycle A and B <ul style="list-style-type: none"> • design criteria: the precise features a product must have in order to be successful • innovative: an adjective to describe new or original ideas • sustainable material: a material is sustainable if it comes from renewable sources and it does not damage the environment • dimension: a measurement of something in a particular direction (eg height, length, width) • aesthetic: something about the appearance (eg something can be aesthetically pleasing)
Cycle A <ul style="list-style-type: none"> • felt: a kind of cloth made from wool • needle: a thin piece of metal or plastic with a point at one end and a hole or eye for thread in the other, used in sewing • thread: a long, thin strand of cotton used in sewing or weaving • whipstitch: a stitch that circles the edge of a piece of fabric 	Cycle A <ul style="list-style-type: none"> • fabric: cloth or other material produced by weaving or knitting fibres • binka: a firm piece of fabric with holes in to help beginners to sew and embroider • running stitch: of a line of small even stitches • back stitch: a method of sewing with overlapping stitches to form a solid line of stitching 	Cycle A <ul style="list-style-type: none"> • embroidery: the process of forming decorative designs with hand or machine needlework • cross stitch: a stitch formed of two stitches crossing each other • pattern: a repeated decorative design • texture: the feel and appearance of a a surface
Cycle B <ul style="list-style-type: none"> • base: the bottom part of an object; the part on which something rests • structure: a combination of materials and/or parts to create a 3d shape • stable: something that is unlikely to fall down or collapse • freestanding: something that stands up by itself 	Cycle B <ul style="list-style-type: none"> • prototype: an early sample or model of a product used to evaluate a design • component: a part that combines with other parts to make something (eg a machine or a piece of equipment) • exploded diagram: a drawing that shows the individual components or parts of a product and how they fit together • mechanism: a number of parts or components that work together, usually as part of a machine 	Cycle B <ul style="list-style-type: none"> • computer-aided design (CAD): a way of drawing on a computer to visualise designs and simulating them to see how they work • to reinforce: to strengthen or support

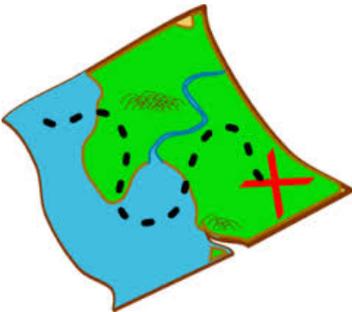
Age-related expectations: Geography *Where in the world am I?* topic

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
(British geography and fieldwork)	(British geography and fieldwork)	(British geography and fieldwork)
Knowledge and other learning	Knowledge and other learning	Knowledge and other learning
<p>Locational knowledge</p> <ul style="list-style-type: none"> I know the four countries and capital cities of the UK. I know the seas which surround the UK. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key geographical vocabulary relating to physical features (beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather). I know some key geographical vocabulary relating to human features (city, town, village, factory, farm, house, office, port, harbour, shops). 	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know the main cities of the UK (the four capitals and at least four more). I know some of the counties in the UK. I know some of the main rivers and mountains in the UK (at least three of each). <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 vocabulary plus volcanoes and earthquakes). I know some key vocabulary relating to human geography (all of the Year 1/2 plus types of settlement and land use). <div data-bbox="990 694 1245 933" data-label="Image"> </div>	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know some of the main rivers, mountains and regions (eg the Yorkshire Dales, the Lake District, the Highlands of Scotland) in the UK (at least three of each). I know how some physical and human features of the UK have changed over time (eg expansion of cities, travel networks, coastal erosion). <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 and Year 3/4 vocabulary plus climate zones, biomes and vegetation belts). I know some key vocabulary relating to human geography (all of the Year 1/2 and Year 3/4 vocabulary plus economic activity, trade links and the distribution of natural resources such as energy, food, minerals and water).
Skills	Skills	Skills
<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases and globes to identify places (must include places in the Knowledge section). I can use simple compass directions (North, South, East, West) and locational / directional language (eg near and far, left and right) to describe the location of features and routes on a map. I can use simple fieldwork and observational skills to study the geography of my school and its surrounding environment (including physical and human features). I can use aerial photographs and plan perspectives to recognise landmarks and basic physical and human features. I can devise a simple map, using and constructing basic symbols in a key. 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places (must include places detailed in the Knowledge section). I can use fieldwork to observe, measure, record and present the human and physical features in the local area (eg collect data, take photographs, use and annotate maps). I can use the eight points of a compass, four figure grid references and can identify some map symbols (including through the use of Ordnance Survey maps). <p>Human and physical geography</p> <ul style="list-style-type: none"> I can describe features of the UK (referring to physical and human geography in the Knowledge section). 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places efficiently (must include places detailed in the Knowledge section). I can use the eight points of a compass, six figure grid references and can identify a wider range of map symbols (including through the use of Ordnance Survey maps). I can use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods (including sketching maps, creating plans and graphs and using digital technologies). <p>Human and physical geography</p> <ul style="list-style-type: none"> I can describe features of the UK (referring to physical and human geography in the Knowledge section).

Age-related vocabulary: Geography

Years 1 and 2	Years 3 and 4	Years 5 and 6
(British geography and fieldwork)	(British geography and fieldwork)	(British geography and fieldwork)
<i>Where in the world am I? topic</i>	<i>Where in the world am I? topic</i>	<i>Where in the world am I? topic</i>
<ul style="list-style-type: none"> • atlas: a collection of maps, usually in a book • city: a large town • compass: a tool for finding direction • locality: an area or neighbourhood • landmark: an object or feature of a locality that has importance and can be used to help you find your way • physical geography: physical geography looks at the natural things in our environment • human geography: human geography looks at changes in the environment by humans • to survey: to find the opinions of a group of people by asking them questions • issue: an important topic or problem that needs discussion 	<ul style="list-style-type: none"> • grid reference: a location on a map which is found using numbered lines • Ordnance Survey (OS): Britain's mapping agency • scale: the relationship between distance on a map and the matching distance on the ground • county: a region within a country • settlement type: places where people live and work • land-use: the specific purpose that an area of land is used for • compass points: the marks on a compass that show direction 	<ul style="list-style-type: none"> • national park: an area set aside by the government for the preservation of the natural environment • six figure grid reference: six numbers which give a precise location on a map • city expansion: also called urban sprawl, this is the increase in a built up area of a city • urban green space: any vegetated land or water within an urban area • carbon stores: places where carbon is stored in the environment • quantitative data: data which can be written in numbers • qualitative data: data that can be written in words, not numbers • soundscape: a qualitative record of the sounds in any environment • sampling: a way of collecting fieldwork data without measuring everything

Age-related expectations: Geography *Explorers* topic

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
(Contrasting locations: UK and non-Europe)	(Contrasting locations: UK and Europe)	(Contrasting locations: UK and the Americas)
Knowledge and other learning	Knowledge and other learning	Knowledge and other learning
<p>Locational knowledge</p> <ul style="list-style-type: none"> I know the world's seven continents. I know the world's five oceans. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key geographical vocabulary relating to physical features (beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather). I know some key geographical vocabulary relating to human features (city, town, village, factory, farm, house, office, port, harbour, shops). 	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know some European countries and their capital cities (at least four, not including those in the UK). I know some of the main rivers and mountains in Europe. I know the position of the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle. I know that longitude tells us how east or west a place is (the Prime Meridian or Greenwich Meridian is 0°) and the link to time zones. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 vocabulary plus volcanoes and earthquakes). I know some key vocabulary relating to human geography (all of the Year 1/2 plus types of settlement and land use). 	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know some European countries and their capital cities (at least six, not including those in the UK). I know some world-wide countries and some of their major cities. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 and Year 3/4 vocabulary plus climate zones, biomes and vegetation belts). I know some key vocabulary relating to human geography (all of the Year 1/2 and Year 3/4 vocabulary plus economic activity, trade links and the distribution of natural resources such as energy, food, minerals and water).
Skills	Skills	Skills
<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases and globes to identify places (must include places in the Knowledge section). I can use aerial photographs and plan perspectives to recognise landmarks and basic physical and human features. <p>Skills which develop place knowledge</p> <ul style="list-style-type: none"> I can compare and contrast a small area of the United Kingdom and a small area of a contrasting non-European country (referring to physical and human geography in the Knowledge section). <p>Skills which develop locational knowledge</p> <ul style="list-style-type: none"> I can identify features of countries and cities in the UK and its surrounding seas (referring to physical and human geography in the Knowledge section). 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places (must include places detailed in the Knowledge section). <p>Skills which develop place knowledge</p> <ul style="list-style-type: none"> I can compare and contrast a region of the UK and a region within Europe, showing some understanding of the similarities and differences (referring to physical and human geography in the Knowledge section). 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places efficiently (must include places detailed in the Knowledge section). <p>Skills which develop place knowledge</p> <ul style="list-style-type: none"> I can compare and contrast a region of the UK and a region within North or South America, showing understanding of the similarities and differences (and referring to physical and human geography in the Knowledge section). <p>Skills which develop locational knowledge</p> <ul style="list-style-type: none"> I can identify the position and significance of latitude, longitude, the Prime / Greenwich Meridian and time zones (including day and night).

Age-related expectations: Geography *Environment / Natural disasters* topic

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>'The streets around our school' (primary focus: environmental issues)</p>	<p>(primary focus: volcanoes and/or earthquakes)</p>	<p>(primary focus: climate change)</p>
<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>
<p>Locational knowledge</p> <ul style="list-style-type: none"> I know the four countries and capital cities of the UK. I know weather patterns in the UK (seasonal and daily). <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key geographical vocabulary relating to physical features (beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, weather). I know some key geographical vocabulary relating to human features (city, town, village, factory, farm, house, office, port, harbour, shops). 	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know the position of the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 vocabulary plus volcanoes and earthquakes). I know some key vocabulary relating to human geography (all of the Year 1/2 plus types of settlement and land use). 	<p>Locational knowledge</p> <ul style="list-style-type: none"> I know how some physical and human features of the UK have changed over time (eg expansion of cities, travel networks, coastal erosion). I know that latitude tells us how north or south a place is (the Equator is 0° latitude) and the causal link to world climates. <p>Human and physical geography</p> <ul style="list-style-type: none"> I know some key vocabulary relating to physical geography (all of the Year 1/2 and Year 3/4 vocabulary plus climate zones, biomes and vegetation belts). I know some key vocabulary relating to human geography (all of the Year 1/2 and Year 3/4 vocabulary plus economic activity, trade links and the distribution of natural resources such as energy, food, minerals and water). 
<p>Skills</p>	<p>Skills</p>	<p>Skills</p>
<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases and globes to identify places (must include places in the Knowledge section). I can use simple fieldwork and observational skills to study the geography of my school and its surrounding environment (including physical and human features). I can use aerial photographs and plan perspectives to recognise landmarks and basic physical and human features. 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places (must include places detailed in the Knowledge section). <p>Skills which develop place knowledge</p> <ul style="list-style-type: none"> I can study a locality showing understanding of its physical and human geography (see knowledge section). For example, a case study on people living near to an active volcano. 	<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> I can use maps, atlases, globes and digital / computer mapping to locate places efficiently (must include places detailed in the Knowledge section). <p>Skills which develop place knowledge</p> <ul style="list-style-type: none"> I can study a locality showing understanding of its physical and human geography (see knowledge section) and can compare it to a contrasting locality. For example, comparing the impact of climate change on polar bears in Greenland and contrasting this to the impact of rising sea levels for people living in a coastal area.

Age-related vocabulary: Geography

Years 1 and 2	Years 3 and 4	Years 5 and 6
<i>'The streets around our school'</i> (primary focus: environmental issues)	(primary focus: volcanoes and/or earthquakes)	(primary focus: climate change)
Environment / Natural disasters topic	Environment / Natural disasters topic	Environment / Natural disasters topic
<ul style="list-style-type: none"> • locality: an area or neighbourhood • environment: the surroundings of a human, animal or plant • recycling: turning waste into new materials • pollution: something harmful or poisonous in an environment • to survey: to find the opinions of a group of people by asking them questions • physical geography: physical geography looks at the natural things in our environment • human geography: human geography looks at changes in the environment by humans • issue: an important topic or problem that needs discussion • solution: a way of solving an issue or problem 	<ul style="list-style-type: none"> • volcano: an opening in the Earth's crust that allows magma, ash and gases to escape • earthquake: a sudden shaking of the ground because of movement in the Earth's crust • tectonic plates: different pieces of the Earth's crust which fit together like a jigsaw and move in different directions and at different speeds • magma: molten rock (rock so hot that it has turned into liquid) which is underneath the Earth's crust • lava: when magma reaches the surface of the Earth it is called lava • land-use: the specific purpose that an area of land is used for • crust: the outer layer of the Earth (the part we can see) • mantle: a layer of the Earth which is mainly rock • core: the centre of the Earth which is mainly metal 	<ul style="list-style-type: none"> • climate zones: different parts of the world grouped by temperature and rainfall (eg the Met Office give six: arid, equatorial, Mediterranean, polar, snow and temperate) • climate change: a change in climate (temperature and rainfall) over a period of time (also known as 'climate crisis' and 'climate emergency') • global warming: an outcome of climate change: a gradual increase in the overall temperature of the Earth (also known as 'global heating') • latitude: imaginary lines which show how north or south a place is (the equator is the best-known line of latitude) • longitude: imaginary lines which show how east or west a place is • fossil fuel: a non-renewable energy source, formed from the remains of plants and animals that died millions of years ago (eg coal, oil, gas) • renewable energy: a source of energy that is sustainable so it will never run out (eg wind energy, solar energy, tidal energy) • emission: an emission is something that been released into the world (eg carbon dioxide is an emission created when fossil fuels are burned)

Age-related expectations: History topic overview

These key historical concepts are referred to as 'abstract terms' in the National Curriculum and as 'substantive concepts' by Ofsted. They are themes that are considered within our History topics.

Years 1 and 2	Years 3 and 4	Years 5 and 6
<p>Shopping (Changes within living memory, inc local history)</p> <p>The key historical concept in this topic is trade. Trade is the exchange of goods and services, initially for other goods and services, and then for money. It's played a powerful influence throughout history, often a cause of conflict and the movement of people.</p> <p>This topic illustrates trade in a way that is relevant to younger children, through real-life experience and through role-play in a school setting. Children will consider changes within living memory, and will go much further into the past, too.</p> <p>Children will develop their understanding of trade more in the Y3,4 Carnival topic, when they consider the slave trade.</p>	<p>Romans Anglo-Saxons</p> <p>There are two key historical concepts which we'll explore in this topic: empire and invasion.</p> <p>An empire is a large group of countries or states ruled by an emperor or empress. An invasion is when a country or region is invaded by an armed force.</p> <p>In this topic, children will learn about the Roman Empire and its invasion of Britain. It will examine how life changed for the people living in Britain at the time of the invasion.</p> <p>Children will develop their understanding of Empire in the Carnival topic when they learn about the British Empire's role in the slave trade and also in the World War II topic, where they'll learn about the role immigration from former British Empire countries played in helping to rebuild Britain after the war.</p>	<p>Vikings The Islamic Golden Age</p> <p>We'll consider three key historical concepts in this topic: trade, invasion and innovation.</p> <p>During this period of time, Baghdad was the largest city in the world and was the centre of the world's trade routes. Trade between Vikings and Baghdad happened and provides a real link between these two societies.</p> <p>Through studying the Vikings, children will again learn about how people invaded and settled in Britain. Invasion is also relevant as it brought an end to the Islamic Golden Age.</p> <p>The Islamic Golden Age was a period of great innovation. Learning and knowledge was key to their success. They built the world's first hospitals, universities and observatories, as well as studied writing from scholars around the world. The contrast with Viking Britain during the Dark Ages is stark!</p>
<p>The Great Fire of London (Events beyond living memory, inc local history)</p> <p>Innovation is the key historical concept in this topic.</p> <p>An innovation is an improvement or replacement for something.</p> <p>Stone Age people were early innovators, developing tools, farming practices and the first societies. Great innovations and innovators are celebrated across our wider curriculum, from the Ancient Greeks in History lessons to computer programmers like Alan Turing and Tim Berners-Lee.</p> <p>This topic identifies how innovation often happens out of necessity. As a result of the Great Fire of London, advances were made in fire-fighting equipment and the origins of a fire service. The rebuilding of London after the fire also established new building regulations.</p>	<p>Ancient Greece</p> <p>The key historical concepts in this topic are government, civilisation and innovation.</p> <p>A government is the group of people responsible for ruling a country. A civilisation is a stage of human and cultural development that is considered most advanced.</p> <p>In this topic, children will learn about the different types of government in Ancient Greek city states, with a focus on the development of democracy in Athens and how this has influenced Britain's development of democracy.</p> <p>The Ancient Greeks were great innovators and children will learn about the legacy they left in terms of maths, literature, philosophy, the arts.</p> <p>Children's understanding of innovation will be developed in Y5,6 where they will contrast the development of two societies at around the same point in time but in different locations.</p>	<p>Stone Age to Iron Age Ancient Egypt</p> <p>The historical concepts we'll explore in this topic are civilisation and innovation.</p> <p>In this topic, we're introduced to another great civilisation: Ancient Egypt.</p> <p>Previously, in Y3,4, children learned about Ancient Greece. However, this Egyptian civilisation was a lot more ancient than the Ancient Greeks!</p> <p>This learning about Ancient Egypt contrasts really well with Stone Age Britain because, whilst the Egyptians were building the great pyramids, Stone Age Briton's innovations and developments were much more modest. This is an important reminder that different societies developed at different speeds in different parts of the world.</p>
<p>Heroes (Lives of significant individuals, inc local history)</p> <p>The key historical concept in our Heroes topic is inequality. Inequality is being treated unfairly and not having the same chances in life as someone else.</p> <p>This topic identifies inequality by studying the life of a local suffragette, Leonora Cohen, and her fight for voting rights for women. It also illustrates how Nelson Mandela dedicated his life to fight for equality for black people in South Africa.</p> <p>Children will develop their understanding of inequality in the Y3,4 Carnival topic, when they learn about the slave trade.</p>	<p>Carnival (Local history)</p> <p>Our Carnival topic has three key concepts which we'll consider: trade, inequality and empire.</p> <p>The concepts of trade and inequality were introduced in Y1,2. In this topic, these two concepts go hand in hand as children will be learning about the triangle trade of humans, raw materials and products enabled by the Atlantic Slave Trade.</p> <p>In this topic, children learn about a recent empire: the British Empire. We'll consider its role in the origin and abolition of the slave trade.</p> <p>Trade will be further developed in Y5,6 when children learn about trade networks in the Vikings and Islamic Golden Age topic. They will also revisit the British Empire during the World War II topic.</p>	<p>World War II (evacuees, refugees and Leeds at war) (Study of an aspect or theme in British history)</p> <p>In this topic, the two historical concepts we'll develop are invasion and empire.</p> <p>This topic focusses on the impact on Britain and its people during and after World War II.</p> <p>The link to invasion begins with how the war began. It will then look at the impact of the war in Britain and the fear of invasion by the Nazis.</p> <p>The British Empire returns as a key concept, in particular when children learn about how Britain was rebuilt after the war and the important role that immigration from commonwealth countries played in this.</p>

Age-related expectations: History Cycle A, Spring 1

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Shopping (Changes within living memory, inc local history) key concepts: trade</p>	<p>Romans Anglo-Saxons key concepts: empire, invasion</p>	<p>Vikings The Islamic Golden Age key concepts: trade, invasion, innovation</p>
<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>
<ul style="list-style-type: none"> I know and can use words and phrases relating to time and chronology (eg old, new, past, a very long time ago, present, ancient, modern). I know that a very long time ago people traded without money. I know that over time there are more ways to buy and sell things. I know that over time there are more products available. I know how some products have changed over time (eg a toy, a household item). I know that Marks and Spencer is an example of a shop that started in Leeds and has grown. 	<ul style="list-style-type: none"> I know that the Celts lived in Britain before the Roman invasion. I know what life in Britain was like in Britain before the Romans invaded (eg Celts lived in tribes with a king or queen, they were farmers, they lived in round houses, they used metal tools). I know that the centre of the Roman Empire was Rome in Italy. I know that the Romans successfully invaded Britain in 43AD. I know that Boudicca led an uprising against the Roman occupation. I know how the Roman occupation of Britain helped to advance British society (eg roads, religion, writing, numbers). I know how Britain changed between the end of the Roman occupation and the Anglo-Saxon invasion and settlement. I know that during the Anglo-Saxon period Britain was divided into many kingdoms and that some of these boundaries still exist today. 	<ul style="list-style-type: none"> I know that the Islamic Golden Age and Viking Britain occurred around the same time. I know that Vikings first came to Britain around 800AD. I know that Vikings first came to Britain to raid but settled in Britain due to the fertile farmland. I know that the Vikings came from Scandinavia. I know that the Vikings and Anglo-Saxons were often in conflict. I know that the Islamic Golden Age was at its peak in 900AD. I know that the centre of the Islamic Golden Age was Baghdad in modern day Iraq. I know that Baghdad was the biggest city in the world and was the centre of the world's trade routes. I know the impact that the ancient Islamic civilisation in Baghdad had on the world (eg. number system, universities, hospitals). I know why this Islamic civilisation was considered an advanced society, especially in relation to that period of time in Britain.
<p>Skills</p>	<p>Skills</p>	<p>Skills</p>
<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence events (eg within my own life time) and objects (eg Victorian, 1970s and modern products) in chronological order and give plausible reasons for this order. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between my life and the life of an older person (eg shopping, holidays, toys, transport). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain how significant people and events have changed our way of life (eg why the Great Fire of London happened). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using different historical sources (eg photographs, written records, people). <p>Historical interpretation</p> <ul style="list-style-type: none"> I can use my historical imagination to make inferences about people's lives and their feelings (eg how Mary Seacole felt when tending injured soldiers). 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods and events in chronological order using historical knowledge and / or enquiry skills and a growing awareness of dates. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between the lives of people living in different periods of time. <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened, why people behaved as they did, and begin to think about the consequences this may have had (eg why the Romans invaded Britain and what this meant for British people). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using primary and secondary sources to gain a clearer understanding. I can begin to evaluate historical sources with an awareness that recent history has a greater number of sources. <p>Historical interpretation</p> <ul style="list-style-type: none"> I understand that people may have different interpretations of the past (eg Howard Carter: tomb raider or celebrated archaeologist?) and that there may be different points of view in primary and secondary sources. 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods of British and world history in chronological order using dates. I can use a timeline to give information about a period of history (eg plot key developments across a period of local history) or a theme (eg plot key developments of a theme, like transport, across periods of history). <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise and offer plausible explanations for similarities and differences between the lives of people living in different periods of time and also between people living during the same period of time but in different places (eg comparing Viking Britain to the Early Islamic Civilisation). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened and why people behaved as they did, and can understand the consequences, including for the present (eg conflicts, inventions, advances). <p>Historical sources</p> <ul style="list-style-type: none"> I can evaluate historical sources based on reliability and bias. I can ask and answer questions by selecting from a range of sources (both primary and secondary) to gain a clearer understanding. <p>Historical interpretation</p> <ul style="list-style-type: none"> I can debate different interpretations of people and events and demonstrate an appropriate understanding of different points of view.

Age-related vocabulary: History

Years 1 and 2	Years 3 and 4	Years 5 and 6
Shopping (Changes within living memory, inc local history) <i>key concepts: trade</i>	Romans Anglo-Saxons <i>key concepts: empire, invasion</i>	Vikings The Islamic Golden Age <i>key concepts: trade, invasion, innovation</i>
Cycle A, Spring 1	Cycle A, Spring 1	Cycle A, Spring 1
<ul style="list-style-type: none"> • past: something that has already happened • present: something that is happening now • ancient: very old • modern: the present day • similarity: when something is the same • difference: when something is different • sequence: put in the correct order • trade: the buying or swapping of products and services • timeline: a list of important events arranged in order 	<ul style="list-style-type: none"> • chronology: arrangement of events or dates in time order • empire: a large group of countries or states ruled by an emperor or empress • invasion: when a country or region is invaded by an armed force • settlement: a place or area where a group of people live • to resist: to stand up to or fight back against something • primary source: a source of evidence created at the time of the event (eg diaries, letters, photographs, newspaper articles, artefacts, ruins) • secondary source: a source of evidence created after time of the event (eg replica objects, text books, illustrations) • prehistory: before written records • kingdom: an area of land ruled by a monarch (a king or queen) 	<ul style="list-style-type: none"> • chronology: arrangement of events or dates in time order • conflict: a series of battles over time • invasion: when a country or region is invaded by an armed force • civilisation: the society considered most advanced at a time • caliph: ruler in a Muslim country • golden-age: a time when an activity or society is at its best • innovation: an improvement or replacement for something • trade: the exchange of goods and services • impact: the effect one thing has on another • bias: a particular viewpoint for one thing over another, especially an unfair one

Age-related expectations: History Cycle B, Autumn 1

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>The Great Fire of London (Events beyond living memory, inc local history) key concepts: innovation</p>	<p>Ancient Greece key concepts: government, innovation</p>	<p>Stone Age to Iron Age Ancient Egypt key concepts: civilisation, innovation</p>
<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>	<p>Knowledge and other learning</p>
<ul style="list-style-type: none"> I know and can use words and phrases relating to time and chronology (eg old, new, past, a very long time ago, present, ancient, modern). I know what houses were like before the Great Fire of London and that fires were quite common. I know that Samuel Pepys' diary helps us to know what the Great Fire of London was like. I know why the fire spread quickly and how it was eventually put out. I know what changed as a consequence of the Great Fire of London. 	<ul style="list-style-type: none"> I know that ancient Greece was divided into many city states and I know that Athens and Sparta were the most powerful. I know some of the main characteristics of the Athenians and the Spartans. I know about the influence the gods had on Ancient Greece. I know about the influence Ancient Greece has had on the Western world, eg philosophy, arts, science, maths, literature and politics. I know that democracy is a Greek word meaning 'government by the people' and that our government today is a legacy of the Athenian assembly and council. 	<ul style="list-style-type: none"> I know how Britain changed between the beginning of the Stone Age and the Iron Age. I know the main differences between the Stone, Bronze and Iron Ages. I know what is meant by 'hunter-gatherer'. I know about and can name some of the advanced societies that were in the world around 3000 years ago. I can compare life in Britain 3000 years ago to life in Ancient Egypt. I know that the Ancient Egyptians had a writing system called hieroglyphics. I know that the Ancient Egyptians built pyramids as tombs for pharaohs and that the biggest was built around 2500BC.
<p>Skills</p>	<p>Skills</p>	<p>Skills</p>
<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence events (eg within my own life time) and objects (eg Victorian, 1970s and modern products) in chronological order and give plausible reasons for this order. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between my life and the life of an older person (eg shopping, holidays, toys, transport). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain how significant people and events have changed our way of life (eg why the Great Fire of London happened). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using different historical sources (eg photographs, written records, people). <p>Historical interpretation</p> <ul style="list-style-type: none"> I can use my historical imagination to make inferences about people's lives and their feelings (eg how Mary Seacole felt when tending injured soldiers). 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods and events in chronological order using historical knowledge and / or enquiry skills and a growing awareness of dates. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between the lives of people living in different periods of time. <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened, why people behaved as they did, and begin to think about the consequences this may have had (eg why the Romans invaded Britain and what this meant for British people). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using primary and secondary sources to gain a clearer understanding. I can begin to evaluate historical sources with an awareness that recent history has a greater number of sources. <p>Historical interpretation</p> <ul style="list-style-type: none"> I understand that people may have different interpretations of the past (eg Howard Carter: tomb raider or celebrated archaeologist?) and that there may be different points of view in primary and secondary sources. 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods of British and world history in chronological order using dates. I can use a timeline to give information about a period of history (eg plot key developments across a period of local history) or a theme (eg plot key developments of a theme, like transport, across periods of history). <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise and offer plausible explanations for similarities and differences between the lives of people living in different periods of time and also between people living during the same period of time but in different places (eg comparing Viking Britain to the Early Islamic Civilisation). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened and why people behaved as they did, and can understand the consequences, including those for the present day (eg conflicts, inventions and other advances). <p>Historical sources</p> <ul style="list-style-type: none"> I can evaluate historical sources based on reliability and bias. I can ask and answer questions by selecting from a range of sources (both primary and secondary) to gain a clearer understanding. <p>Historical interpretation</p> <ul style="list-style-type: none"> I can debate different interpretations of people and events and demonstrate an appropriate understanding of different points of view.

Age-related expectations: History Cycle B, Summer 1

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
Heroes (Lives of significant individuals, inc local history) <i>key concepts: inequality</i>	Carnival (Local history) <i>key concepts: trade, inequality, empire</i>	World War II (evacuees, refugees and Leeds at war) (Study of an aspect or theme in British history) <i>key concepts: invasion, empire</i>
Knowledge and other learning	Knowledge and other learning	Knowledge and other learning
<ul style="list-style-type: none"> I know and can use words and phrases relating to time and chronology (eg old, new, past, a very long time ago, present, ancient, modern). I know why Leonora Cohen (<i>must be studied</i>), Nelson Mandela, Rosa Parks, Martin Luther King (<i>at least one other must be studied</i>) were significant individuals. I know what impact Leonora Cohen (<i>must be studied</i>), Nelson Mandela, Rosa Parks, Martin Luther King (<i>at least one other must be studied</i>) had or what changed because of them. 	<ul style="list-style-type: none"> I know what the Atlantic Slave Trade was. I know that Leeds West Indian Carnival is a celebration of West Indian culture and the abolition of slavery. I know when the first Leeds West Indian Carnival took place and how it began. I know some features of the Leeds West Indian Carnival (eg processions, costumes, dancing, music, food). 	<ul style="list-style-type: none"> I know what caused World War II. I know that the bombing of British cities by German planes was called The Blitz. I know some ways that life changed for people living in Britain during WWII (eg rationing, role of women, evacuation, refugees) I know how and when WWII ended. I know the important role that immigration from Commonwealth countries played in helping Britain rebuild after WWII (eg Windrush).
Skills	Skills	Skills
<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence events (eg within my own life time) and objects (eg Victorian, 1970s and modern products) in chronological order and give plausible reasons for this order. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between my life and the life of an older person (eg shopping, holidays, toys, transport). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain how significant people and events have changed our way of life (eg why the Great Fire of London happened). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using different historical sources (eg photographs, written records, people). <p>Historical interpretation</p> <ul style="list-style-type: none"> I can use my historical imagination to make inferences about people's lives and their feelings (eg how Mary Seacole felt when tending injured soldiers). 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods and events in chronological order using historical knowledge and / or enquiry skills and a growing awareness of dates. <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise similarities and differences between the lives of people living in different periods of time. <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened, why people behaved as they did, and begin to think about the consequences this may have had (eg why the Romans invaded Britain and what this meant for British people). <p>Historical sources</p> <ul style="list-style-type: none"> I can ask and answer questions about the past using primary and secondary sources to gain a clearer understanding. I can begin to evaluate historical sources with an awareness that recent history has a greater number of sources. <p>Historical interpretation</p> <ul style="list-style-type: none"> I understand that people may have different interpretations of the past (eg Howard Carter: tomb raider or celebrated archaeologist?) and that there may be different points of view in primary and secondary sources. 	<p>Time and chronology</p> <ul style="list-style-type: none"> I can sequence key periods of British and world history in chronological order using dates. I can use a timeline to give information about a period of history (eg plot key developments across a period of local history) or a theme (eg plot key developments of a theme, like transport, across periods of history). <p>Change and continuity</p> <ul style="list-style-type: none"> I can recognise and offer plausible explanations for similarities and differences between the lives of people living in different periods of time and also between people living during the same period of time but in different places (eg comparing Viking Britain to the Early Islamic Civilisation). <p>Cause and effect</p> <ul style="list-style-type: none"> I can explain why significant events happened and why people behaved as they did, and can understand the consequences, including those for the present day (eg conflicts, inventions and other advances). <p>Historical sources</p> <ul style="list-style-type: none"> I can evaluate historical sources based on reliability and bias. I can ask and answer questions by selecting from a range of sources (both primary and secondary) to gain a clearer understanding. <p>Historical interpretation</p> <ul style="list-style-type: none"> I can debate different interpretations of people and events and demonstrate an appropriate understanding of different points of view.

Age-related vocabulary: History

Years 1 and 2	Years 3 and 4	Years 5 and 6
Heroes (Lives of significant individuals, inc local history) <i>key concepts: inequality</i>	Carnival (Local history) <i>key concepts: trade, inequality, empire</i>	World War II (evacuees, refugees and Leeds at war) (Study of an aspect or theme in British history) <i>key concepts: invasion, empire</i>
Cycle B, Summer 1	Cycle B, Summer 1	Cycle B, Summer 1
<ul style="list-style-type: none"> • equality: being treated fairly and having the same chances in life • rights: the basic things people need to live (eg food, housing) and reach their potential (eg education, safety) • apartheid: a system that keeps people apart, usually because of their different skin colour • racism: treating people differently because of the colour of their skin, their religious beliefs or their culture • suffragette: a woman who campaigned for the rights of women to vote • protest: people coming together to show others that they are against an idea or an event • impact: a strong and powerful effect on something or someone • belief: a strongly held opinion that something is right 	<ul style="list-style-type: none"> • West Indies: a group of islands located in the Caribbean Sea • slave: a person who is owned by another person and forced to work for them with no pay or rights • slave trade: the buying and selling of slaves (the Atlantic Slave Trade was the forced movement of millions of African people to the West Indies and America by Europeans) • abolition: officially stopping or ending something, for example, slavery • plantation: a large piece of land (farm or estate) used for growing crops on a large scale, such as cotton, tea, sugar cane • carnival: a festival involving processions, music, dancing and wearing masks and costumes • culture: the things that are shared by a society or group of people, such as food, language, clothing, music, arts, beliefs, customs, religion • immigration: coming to live permanently from another country 	<ul style="list-style-type: none"> • evacuation: the movement of people from a place of danger to a safer place • refugee: a person who has been forced to leave their country to escape war, natural disaster or persecution • The Blitz: the German bombing campaign against the United Kingdom in 1940-41 • persecution: the treatment of people really badly, especially because of their race, political or religious beliefs • The Holocaust: the mass murder of Jewish people by the German Nazis • Women's Land Army: a unit of women recruited to do agricultural work in the UK during World War I and World War II • immigration: the action of coming to live permanently in a foreign country • British Empire: the group of countries which were ruled or controlled by Britain • Windrush Generation: people from the West Indies who immigrated to Britain after the war, initially on the ship called The Empire Windrush

Age-related expectations: Foreign language - Latin

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>We don't teach a foreign language in Key Stage 1. This is in-line with the National Curriculum.</p> <p>There are lots of reasons to teach Latin rather than the perhaps more typical choices of Spanish or French. They include:</p> <p>Learning Latin supports learning other languages in the future. About 80% of words in Romance languages such as French, Spanish and Italian come from Latin. In Year 7, your child might learn French, or Spanish, or German perhaps. In most cases, there won't be much choice, and different secondary schools offer different languages for Year 7 students. Latin provides a really useful basis to learn other languages.</p> <p>Latin also helps to enhance your child's understanding in English, too. About two thirds of English words are derived from Latin, so your child will be more confident when they come across a new word in English.</p> 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> • I know at least three reasons why it's good to learn a language in addition to English. • I know where some foreign languages are spoken. • I know some facts about the culture, people, and places of Spain. • I know some strategies that help me to remember key words and phrases. <p>Skills</p> <ul style="list-style-type: none"> • I can listen to spoken Latin and show understanding by joining in and responding. • I can explore the patterns and sounds of language through songs and rhymes and begin to link the spelling, sound and meaning of words. • I can speak in sentences, using increasingly familiar vocabulary, phrases and basic language structures. • I can read and show understanding of words, phrases and simple writing. • I can appreciate stories, songs, poems and rhymes in Latin. • I can broaden my vocabulary and develop my ability to understand new words, including through using a dictionary. • I can write phrases from memory. • I can begin to describe people, places, things and actions. • I can understand basic Latin grammar (including feminine and masculine; the conjugation of high-frequency verbs; key features and patterns of the language; and how these differ from or are similar to English). 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> • I know some facts about the culture, people, and places of Spain and at least one other country where Spanish is spoken. • I know some strategies that help me to remember key words and phrases. • I understand that online dictionaries, translator websites and apps can't be relied on to translate accurately, and know some of the language problems that can be caused by them. <p>Skills</p> <ul style="list-style-type: none"> • I can listen attentively to spoken Latin and show understanding by joining in and responding. • I can explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words. • I can speak in sentences, using familiar vocabulary, phrases and basic language structures. • I can read carefully and show understanding of words, phrases and simple writing. • I can appreciate stories, songs, poems and rhymes in Latin. • I can broaden my vocabulary and develop my ability to understand new words that are introduced into familiar written material, including through using a dictionary. • I can write phrases from memory, and adapt these to create new sentences, to express ideas clearly. • I can describe people, places, things and actions in writing. • I can understand basic Latin grammar (including feminine and masculine; 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).

Age-related expectations: Living and learning

The headings used below reflect statutory content: Relationships and Sex Education and Health Education (DfE, 2021)

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Families and people who care for me</p> <ul style="list-style-type: none"> I know that families are important because they can give love, security. I can appreciate the importance of spending time together and sharing each other's lives. I know that other people's families, either in school or in the wider world, sometimes look different from my own family, but I respect those differences. I know that stable, caring relationships, which may be of different types, are at the heart of happy families. I know that marriage is intended to be lifelong. I can recognise if family relationships are making me feel unhappy or unsafe, and I can seek help or advice from others if needed. 	<p>Families and people who care for me</p> <ul style="list-style-type: none"> I know that families are important because they can give love, security and stability. I know characteristics of healthy family life. I can appreciate the importance of spending time together and sharing each other's lives. I know that other people's families, either in school or in the wider world, sometimes look different from my own family, but I respect those differences and I know that other children's families are also characterised by love and care. I know that stable, caring relationships, which may be of different types, are at the heart of happy families. I know that marriage represents a formal and legally recognised commitment of two people to each other which is intended to be lifelong. I can recognise if family relationships are making me feel unsafe or unhappy, and I can seek help or advice from others if needed. 	<p>Families and people who care for me</p> <ul style="list-style-type: none"> I know that families are important because they can give love, security and stability. I know characteristics of healthy family life. I can appreciate the importance of spending time together and sharing each other's lives. I know that other people's families, either in school or in the wider world, sometimes look different from my own family, but I respect those differences and I know that other children's families are also characterised by love and care. I know that stable, caring relationships, which may be of different types, are at the heart of happy families. I know that marriage represents a formal and legally recognised commitment of two people to each other which is intended to be lifelong. I can recognise if family relationships are making me feel unsafe or unhappy, and I can seek help or advice from others if needed.
<p>Caring friendships</p> <ul style="list-style-type: none"> I know that friendships can make me feel happy and secure, and how people choose and make friends. I know some characteristics of friendships, such as mutual respect, truthfulness, trustworthiness, loyalty, kindness, generosity, trust, sharing interests and experiences and support with problems and difficulties. I know that healthy friendships are positive and welcoming towards others, and do not make others feel lonely or excluded. I know that most friendships have ups and downs. I know that resorting to violence is never right. I can use simple ways to recognise who to trust and who not to trust. I can judge when a friendship is making me feel unhappy or uncomfortable. I can manage conflict, including knowing when and how to seek help or advice from others, if needed. 	<p>Caring friendships</p> <ul style="list-style-type: none"> I know how important friendships are in making me feel happy and secure, and how people choose and make friends. I know an increasing range of characteristics of friendships, including mutual respect, truthfulness, trustworthiness, loyalty, kindness, generosity, trust, sharing interests and experiences and support with problems and difficulties. I know that healthy friendships are positive and welcoming towards others, and do not make others feel lonely or excluded. I know that most friendships have ups and downs, and that these can often be worked through so that the friendship is repaired or even strengthened. I know that resorting to violence is never right. I can recognise who to trust and who not to trust. I can judge when a friendship is making me feel unhappy or uncomfortable. I can manage conflict, including knowing when and how to seek help or advice from others, if needed. 	<p>Caring friendships</p> <ul style="list-style-type: none"> I know how important friendships are in making me feel happy and secure, and how people choose and make friends. I know characteristics of friendships, including mutual respect, truthfulness, trustworthiness, loyalty, kindness, generosity, trust, sharing interests and experiences and support with problems and difficulties. I know that healthy friendships are positive and welcoming towards others, and do not make others feel lonely or excluded. I know that most friendships have ups and downs, and that these can often be worked through so that the friendship is repaired or even strengthened. I know that resorting to violence is never right. I can recognise who to trust and who not to trust. I can judge when a friendship is making me feel unhappy or uncomfortable. I can manage conflict, including knowing when and how to seek help or advice from others, if needed.



Respectful relationships	Respectful relationships	Respectful relationships
<ul style="list-style-type: none"> I know it's important to respect others, even when they are very different from me (eg physically, in character, personality or backgrounds), or when they make different choices or have different preferences or beliefs. I can take steps in different contexts to improve or support respectful relationships. I know the conventions of courtesy and manners. I know the importance of self-respect and how this links to my own happiness. I know that in school and in wider society I should be treated with respect by others, and in turn I should show respect to others, including those in positions of authority. I know about different types of bullying and the responsibilities of bystanders (especially to report bullying to an adult: STOP = Start Telling Other People) and how to get help. I know the importance of permission-seeking and permission giving (consent) in relationships with friends, peers and adults. <p>Also listed as <i>Living in the wider world (extra non-statutory content)</i>:</p> <ul style="list-style-type: none"> Community: I respect myself and others. Community: I'm aware of different groups and communities. Community: I respect equality and diversity in a diverse community. 	<ul style="list-style-type: none"> I know it's important to respect others, even when they are very different from me (eg physically, in character, personality or backgrounds), or when they make different choices or have different preferences or beliefs. I can take practical steps in a range of different contexts to improve or support respectful relationships. I know the conventions of courtesy and manners. I know the importance of self-respect and how this links to my own happiness. I know that in school and in wider society I should be treated with respect by others, and in turn I should show respect to others, including those in positions of authority. I know about different types of bullying (including cyberbullying), the impact of bullying, responsibilities of bystanders (especially to report bullying to an adult: STOP = Start Telling Other People) and how to get help. I know what a stereotype is, and how stereotypes can be unfair, negative or destructive. I know the importance of permission-seeking and permission giving (consent) in relationships with friends, peers and adults. <p>Also listed as <i>Living in the wider world (extra non-statutory content)</i>:</p> <ul style="list-style-type: none"> Community: I respect myself and others. Community: I'm aware of different groups and communities, and understand the importance of respecting these. Community: I respect and value equality and diversity in a diverse community. 	<ul style="list-style-type: none"> I know it's important to respect others, even when they are very different from me (eg physically, in character, personality or backgrounds), or when they make different choices or have different preferences or beliefs. I can take practical steps in a range of different contexts to improve or support respectful relationships. I know the conventions of courtesy and manners. I know the importance of self-respect and how this links to my own happiness. I know that in school and in wider society I should be treated with respect by others, and in turn I should show respect to others, including those in positions of authority. I know about different types of bullying (including cyberbullying), the impact of bullying, responsibilities of bystanders (especially to report bullying to an adult: STOP = Start Telling Other People) and how to get help. I know what a stereotype is, and how stereotypes can be unfair, negative or destructive. I know the importance of permission-seeking and permission giving (consent) in relationships with friends, peers and adults. <p>Also listed as <i>Living in the wider world (extra non-statutory content)</i>:</p> <ul style="list-style-type: none"> Protected characteristics: I'm aware of the protected characteristics and can talk about them in terms of respectful relationships. (Also noted above: respectful relationships.) Community: I respect myself and others. Community: I'm aware of different groups and communities, and understand the importance of respecting and valuing these. Community: I respect and value equality and diversity in a diverse community.
<p>Being safe</p> <ul style="list-style-type: none"> I know some boundaries are appropriate in friendships with peers and others (including in a digital context). I know about the concept of privacy. I know that it is not always right to keep secrets if they relate to being safe. I know that each person's body belongs to them. I know the differences between appropriate and inappropriate/unsafe physical contact. I know how to respond safely and appropriately to adults who I don't know. I know how to recognise and report feelings of being unsafe or feeling bad about any adult. I know how to ask for advice or help for myself or others, and to keep trying until I am heard. I know how to report concerns or abuse. I know I can get help or advice from school. 	<p>Being safe</p> <ul style="list-style-type: none"> I know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context). I know about the concept of privacy and the implications of it for both children. I know that it is not always right to keep secrets if they relate to being safe. I know that each person's body belongs to them. I know the differences between appropriate and inappropriate/unsafe physical, and other, contact. I know how to respond safely and appropriately to adults who I don't know (in all contexts, including online). I know how to recognise and report feelings of being unsafe or feeling bad about any adult. I know how to ask for advice or help for myself or others, and to keep trying until I am heard. I know how to report concerns or abuse, and the vocabulary and confidence needed to do so. I know where to get advice eg family, school and/or other sources. 	<p>Being safe</p> <ul style="list-style-type: none"> I know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context). I know about the concept of privacy and the implications of it for both children and adults. I know that it is not always right to keep secrets if they relate to being safe. I know that each person's body belongs to them. I know the differences between appropriate and inappropriate/unsafe physical, and other, contact. I know how to respond safely and appropriately to adults who I don't know (in all contexts, including online). I know how to recognise and report feelings of being unsafe or feeling bad about any adult. I know how to ask for advice or help for myself or others, and to keep trying until I am heard. I know how to report concerns or abuse, and the vocabulary and confidence needed to do so. I know where to get advice eg family, school and/or other sources.

<p>Mental wellbeing</p> <ul style="list-style-type: none"> • I know that mental wellbeing is a normal part of daily life, in the same way as physical health. • I know that there is a normal range of emotions (eg happiness, sadness, anger, fear, surprise, nervousness) and scale of emotions that all humans experience in relation to different experiences and situations. • I know it's important to recognise and talk about my emotions. • I know the benefits of physical exercise, time outdoors and voluntary activity on mental wellbeing and happiness. • I know some simple self-care techniques, including the importance of rest, time spent with friends and family, and the benefits of hobbies and interests. • I know that it's very important for children to discuss their feelings with an adult and seek support. • I know that bullying (including cyberbullying) has a negative and impact on mental wellbeing. • I know where and how to seek support, including who in school I should speak to if I'm worried about my own or someone else's mental wellbeing (including issues arising online). 	<p>Mental wellbeing</p> <ul style="list-style-type: none"> • I know that mental wellbeing is a normal part of daily life, in the same way as physical health. • I know that there is a normal range of emotions (eg happiness, sadness, anger, fear, surprise, nervousness) and scale of emotions that all humans experience in relation to different experiences and situations. • I know how to recognise and talk about my emotions, and I'm starting to have a varied vocabulary of words to use when talking about my own and others' feelings. • I can judge whether what I'm feeling and how I'm behaving is appropriate and proportionate. • I know the benefits of physical exercise, time outdoors, community participation, voluntary and service-based activity on mental wellbeing and happiness. • I know some simple self-care techniques, including the importance of rest, time spent with friends and family, and the benefits of hobbies and interests. • I know that isolation and loneliness can affect children and that it is very important for children to discuss their feelings with an adult and seek support. • I know that bullying (including cyberbullying) has a negative and often lasting impact on mental wellbeing. • I know where and how to seek support (including recognising the triggers for seeking support), including who in school I should speak to if I'm worried about my own or someone else's mental wellbeing or ability to control their emotions (including issues arising online). • I know it is common for people to experience mental ill health. • I know that mental ill health problems can be resolved. 	<p>Mental wellbeing</p> <ul style="list-style-type: none"> • I know that mental wellbeing is a normal part of daily life, in the same way as physical health. • I know that there is a normal range of emotions (eg happiness, sadness, anger, fear, surprise, nervousness) and scale of emotions that all humans experience in relation to different experiences and situations. • I know how to recognise and talk about my emotions, including having a varied vocabulary of words to use when talking about my own and others' feelings. • I can judge whether what I'm feeling and how I'm behaving is appropriate and proportionate. • I know the benefits of physical exercise, time outdoors, community participation, voluntary and service-based activity on mental wellbeing and happiness. • I know some simple self-care techniques, including the importance of rest, time spent with friends and family, and the benefits of hobbies and interests. • I know that isolation and loneliness can affect children and that it is very important for children to discuss their feelings with an adult and seek support. • I know that bullying (including cyberbullying) has a negative and often lasting impact on mental wellbeing. • I know where and how to seek support (including recognising the triggers for seeking support), including who in school I should speak to if I'm worried about my own or someone else's mental wellbeing or ability to control their emotions (including issues arising online). • I know it is common for people to experience mental ill health. • I know that mental ill health problems can be resolved if the right support is made available, especially if accessed early enough.
<p>Physical health and fitness</p> <ul style="list-style-type: none"> • I know that an active lifestyle is a healthy lifestyle. • I know the importance of building regular exercise into daily and weekly routines and how to achieve this eg walking or cycling to school, a daily active mile, or other forms of regular, vigorous exercise. • I know that an inactive lifestyle is unhealthy and have an awareness of some consequences. • I know how and when to seek support including which adults to speak to in school if I'm worried about my health. 	<p>Physical health and fitness</p> <ul style="list-style-type: none"> • I know that an active lifestyle is a healthy lifestyle, both mentally and physically. • I know the importance of building regular exercise into daily and weekly routines and how to achieve this eg walking or cycling to school, a daily active mile, or other forms of regular, vigorous exercise. • I know that an inactive lifestyle is unhealthy and have an understanding of some consequences (including obesity). • I know how and when to seek support including which adults to speak to in school if I'm worried about my health. 	<p>Physical health and fitness</p> <ul style="list-style-type: none"> • I know characteristics and mental and physical benefits of an active lifestyle. • I know the importance of building regular exercise into daily and weekly routines and how to achieve this eg walking or cycling to school, a daily active mile, or other forms of regular, vigorous exercise. • I know risks associated with an inactive lifestyle (including obesity). • I know how and when to seek support including which adults to speak to in school if I'm worried about my health.
<p>Healthy eating</p> <ul style="list-style-type: none"> • I know what constitutes a healthy diet. • I know that the '5-a-day' message is a good way to plan for a healthy diet. • I know what a poor diet looks like and some risks associated with unhealthy eating (eg obesity and tooth decay). 	<p>Healthy eating</p> <ul style="list-style-type: none"> • I know what constitutes a healthy diet (including an awareness of calories and other nutritional content). • I know simple principles of planning and preparing a range of healthy meals. • I know what a poor diet looks like and some risks associated with unhealthy eating (eg obesity and tooth decay). 	<p>Healthy eating</p> <ul style="list-style-type: none"> • I know what constitutes a healthy diet (including understanding calories and other nutritional content). • I know principles of planning and preparing a range of healthy meals. • I know what a poor diet looks like and some risks associated with unhealthy eating (eg obesity and tooth decay) and other behaviours (eg the impact of alcohol on diet or health).

<p>Drugs, alcohol and tobacco</p> <ul style="list-style-type: none"> • I know medicines can be harmful if not taken in the right way. • I know that smoking is harmful. 	<p>Drugs, alcohol and tobacco</p> <ul style="list-style-type: none"> • I know simple facts about legal and illegal harmful substances, including smoking, alcohol use and drug-taking. 	<p>Drugs, alcohol and tobacco</p> <ul style="list-style-type: none"> • I know facts about legal and illegal harmful substances and associated risks, including smoking, alcohol use and drug-taking.
<p>Health and prevention</p> <ul style="list-style-type: none"> • I know how to reduce the risk of sun damage. • I know the importance of sufficient good quality sleep for good health and that a lack of sleep can affect mood and ability to learn. • I know about dental health and the benefits of good oral hygiene and dental flossing, including regular check-ups at the dentist. • I know about personal hygiene and germs, and the importance of handwashing. • I know some simple facts relating to allergies, immunisation and vaccination. 	<p>Health and prevention</p> <ul style="list-style-type: none"> • I know about safe and unsafe exposure to the sun, and how to reduce the risk of sun damage. • I know the importance of sufficient good quality sleep for good health and that a lack of sleep can affect weight, mood and ability to learn. • I know about dental health and the benefits of good oral hygiene and dental flossing, including regular check-ups at the dentist. • I know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing. • I know simple facts and science relating to allergies, immunisation and vaccination. 	<p>Health and prevention</p> <ul style="list-style-type: none"> • I can recognise early signs of physical illness, such as weight loss, or unexplained changes to the body. • I know about safe and unsafe exposure to the sun, and how to reduce the risk of sun damage, including skin cancer. • I know the importance of sufficient good quality sleep for good health and that a lack of sleep can affect weight, mood and ability to learn. • I know about dental health and the benefits of good oral hygiene and dental flossing, including regular check-ups at the dentist. • I know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing. • I know facts and science relating to allergies, immunisation and vaccination.
<p>Basic first aid</p> <ul style="list-style-type: none"> • I am aware of the emergency services and how they can help. 	<p>Basic first aid</p> <ul style="list-style-type: none"> • I can make a call to emergency services if necessary. 	<p>Basic first aid</p> <ul style="list-style-type: none"> • I can clearly, efficiently call emergency services if needed. • I know concepts of basic first-aid eg dealing with common injuries, including head injuries.
<p>Changing adolescent body</p>	<p>Changing adolescent body</p>	<p>Changing adolescent body</p> <ul style="list-style-type: none"> • I know about puberty and the changing adolescent body, including physical and emotional changes. • I know about menstruation and menstrual wellbeing.
<p>Living in the wider world (extra non-statutory content)</p> <ul style="list-style-type: none"> • Money: I know money is an important part of most people's lives, and I know the importance of saving / keeping it safe. • Rights and responsibilities: I know about rights and responsibilities. <p>Also listed as <i>Respectful relationships (above)</i>:</p> <ul style="list-style-type: none"> • Democracy: I know what democracy means. • Community: I respect myself and others. • Community: I'm aware of different groups and communities. • Community: I respect equality and diversity in a diverse community. 	<p>Living in the wider world (extra non-statutory content)</p> <ul style="list-style-type: none"> • Money: I know money is an important part of most people's lives, and I know it's important to manage it effectively (saving, spending). • Rights and responsibilities: I know about rights and responsibilities, and that having responsibilities comes with having rights. • Rights and responsibilities: I know the importance of responsible behaviours and actions. • Democracy: I know what democracy means, and can describe examples of democracy in school and nationally. <p>Also listed as <i>Respectful relationships (above)</i>:</p> <ul style="list-style-type: none"> • Community: I respect myself and others. • Community: I'm aware of different groups and communities, and understand the importance of respecting these. • Community: I respect and value equality and diversity in a diverse community. 	<p>Living in the wider world (extra non-statutory content)</p> <ul style="list-style-type: none"> • Money: I understand aspects of saving (eg interest rates), spending (eg actual unit costs), and borrowing (eg mortgage interest rates). • Rights and responsibilities: I know about rights and responsibilities in different groups and communities (eg family, clubs and ultimately as citizens), and that having responsibilities comes with having rights. • Democracy: I know what democracy means, and I'm aware of the main political parties in the UK. <p>Also listed as <i>Respectful relationships (above)</i>:</p> <ul style="list-style-type: none"> • Protected characteristics: I'm aware of the protected characteristics and can talk about them in terms of respectful relationships. (Also noted above: respectful relationships.) • Community: I respect myself and others. • Community: I'm aware of different groups and communities, and understand the importance of respecting and valuing these. • Community: I respect and value equality and diversity in a diverse community.
<p><i>For Online Relationships and Internet Safety and Harms, see the age-related expectations for Computing.</i></p>		

Age-related expectations: Music

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know at least two different musical elements (eg pitch, tempo), and can comment on their effect. I know at least six musical instruments, and can comment on their sound. I listen to music with concentration and comment on it. 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know at least four different musical elements (eg pitch, tempo, duration, dynamics), and can comment on their effect. I know an orchestra is typically split into four sections: brass, woodwind, string, percussion. I can comment on music from different cultures. I know and can comment on the work of at least two great composers and musicians. I understand stave and other musical notations. 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know different musical elements (eg pitch, tempo, duration, dynamics, timbre, texture, structure), identifying them and commenting on their effect. I know an orchestra is typically split into four sections (brass, woodwind, string, percussion) and can use this knowledge to classify an instrument. I have an awareness of the history of music and music from different cultures and traditions. I know and can comment on the work of at least three great composers and musicians.
<p>Skills</p> <ul style="list-style-type: none"> I can follow the pulse of a piece of music by clapping or tapping along with it. I can use my voice expressively and creatively by singing songs and speaking chants and rhymes. I can play tuned and untuned instruments musically. I can experiment with, create, select and combine sounds with some awareness of musical elements. 	<p>Skills</p> <ul style="list-style-type: none"> I can listen to and repeat (by singing and playing an instrument) a sound with some accuracy. I can play and perform using my voice and musical instruments with increasing accuracy and control. I can improvise and compose music using some different musical elements (eg pitch, rhythm, dynamics). 	<p>Skills</p> <ul style="list-style-type: none"> I can listen to and repeat (by singing and playing an instrument) a sound with increasing accuracy, demonstrating aural memory. I can play and perform in solo and ensemble contexts, using my voice and musical instruments with increasing accuracy, fluency, control and expression. I can improvise and compose music using a wider range of different musical elements (eg pitch, rhythm, dynamics, timbre, texture, form). I can use and understand stave and other musical notations.

Age-related expectations: PE

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know at least one good reason why exercise is important. I know how my body feels during exercise. 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know at least two good reasons why exercise is important. I know the effects of exercise on the body. 	<p>Knowledge and other learning</p> <ul style="list-style-type: none"> I know at least three good reasons why exercise is important. I know the effects of exercise on the body and the reasons for this. I know that activities / practices can be used to improve a skill / performance.
<p>Skills</p> <ul style="list-style-type: none"> I can use simple skills (eg throwing, catching, passing, dribbling, hitting). I can use some simple tactics for attacking and defending (eg moving into space, using others). I can participate in some simple, competitive team games. I can change speed and direction when moving. I can complete a short sequence with some control in dance and gym, including using balance. I can comment on my own, and others', performances. 	<p>Skills</p> <ul style="list-style-type: none"> I can use appropriate technique to complete skills (eg throwing, catching, passing, dribbling, hitting) under pressure. I can use simple tactics with some success for attacking and defending (eg moving into space, using others, marking). I can participate in some competitive team games. I can move appropriately to complete a given task (eg moving rapidly into space when playing a game or moving gracefully when completing a gymnastics routine). I can create and complete a short sequence with some control in dance and gym, including using balance and flexibility. I can identify strengths and weaknesses in my own, and others', performances. 	<p>Skills</p> <ul style="list-style-type: none"> I can consistently use appropriate technique to complete skills (eg throwing, catching, passing, dribbling, hitting) under pressure and in competitive situations. I can select and use tactics for attacking and defending (eg moving into space, using others, marking) to be successful in a game. I can participate effectively in some competitive team games. I can move appropriately and effectively to complete a given task (eg moving rapidly into space when playing a game or moving gracefully when completing a gymnastics routine). I can create and complete a longer sequence with control in dance and gym, including using balance, flexibility, strength. I can identify strengths and weaknesses in my own, and others', performances comparing past and present performances. I can take part in outdoor and adventurous activity challenges both individually and within a team. I can swim competently, confidently and proficiently over a distance of at least 25 metres, using a range of strokes effectively (eg front crawl, backstroke, breaststroke) and I can perform safe self-rescue in different water-based situations.

Age-related expectations: RE

We follow 'Believing and Belonging', the statutory curriculum for maintained schools in Leeds. (At St James' CE Primary, we supplement this by using the Understanding Christianity resource.)

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge of the beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I know that some people choose to have a religion and some people don't. I know there are lots of different religions and that this is not the same as nationality. I know at least four key facts about Christianity and Islam (eg sacred texts, significant figures, festivals, symbols, places of worship). 	<p>Knowledge of the beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I know that some people choose to have a religion, some people don't, and some people are unsure, and can suggest possible reasons for a particular choice. I know there are lots of different religions and can name at least four. I know at least three religious symbols and can match them to the correct religion. I know at least four key facts about Christianity, Islam and Sikhism (eg sacred texts, significant figures, festivals, symbols, places of worship, dietary requirements). 	<p>Knowledge of the beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I know that some people choose to have a religion, some people don't, and some people are unsure, and can talk about reasons for both points of view. I know there are lots of different religions (and possibly some non-religious systems of belief such as Humanism) and can name at least six. I can roughly locate on a map where some key world religions are most popular. I know at least four religious symbols and can match them to the correct religion. I know at least four key facts about Christianity, Islam, Sikhism and Judaism (eg sacred texts, significant figures, festivals, symbols, places of worship, dietary requirements, rules and moral codes).
<p>Skills</p> <p>Beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I can recall and name different beliefs and practices, including prayer, worship, festivals, rituals and ways of life, in order to find out about the meanings behind them. I can retell and suggest meanings for some religious and moral stories, exploring and discussing sacred writings and sources of wisdom and recognising the traditions from which they come. I can recognise some ways that people express beliefs and belonging through prayer, worship, symbols and actions, appreciating some similarities between communities. <p>Questions of meaning, purpose and value</p> <ul style="list-style-type: none"> I can explore questions about beliefs, expressing my own ideas and opinions in response, using words, music, drama, art or poetry. I can observe and recount different ways of expressing belief, responding sensitively. <p>Morality, identity and diversity</p> <ul style="list-style-type: none"> I can find out about questions of right and wrong and begin to express my ideas and opinions in response. I can notice and respond sensitively to some similarities between different religions and other world views in my approach to questions of beliefs and meaning. 	<p>Skills</p> <p>Beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I can describe and understand some simple links between stories and other aspects of the communities I am investigating, responding to beliefs and teachings that arise from them. I can describe and make some simple connections between different features of religions and other world views, discovering more about prayer, celebrations, worship, pilgrimages and the rituals which mark important points in life. <p>Questions of meaning, purpose and value</p> <ul style="list-style-type: none"> I can observe and understand examples of religions and other world views so that I can begin to explain, with reasons, their meanings and significance for the choices made by individuals and communities. I can discuss and present my own and others' views on questions about belonging, meaning, purpose and truth, applying ideas of my own in different forms (eg through reasoning, music, art, poetry). <p>Morality, identity and diversity</p> <ul style="list-style-type: none"> I can begin to discuss and respond in a simple way to ethical questions, including what is right, wrong, just and fair, and the complexity of these questions. I can begin to consider and apply ideas about ways in which diverse communities can live together, responding to ideas about community, values and respect. 	<p>Skills</p> <p>Beliefs and practices of religions and other world views</p> <ul style="list-style-type: none"> I can describe and understand links between stories and other aspects of the communities I am investigating, responding thoughtfully to beliefs and teachings that arise from them. I can describe and make connections between different features of religions and other world views, discovering more about prayer, celebrations, worship, pilgrimages and the rituals which mark important points in life. <p>Questions of meaning, purpose and value</p> <ul style="list-style-type: none"> I can observe and understand varied examples of religions and other world views so that I can explain, with reasons, their meanings and significance for the choices made by individuals and communities. I can discuss and present thoughtfully my own and others' views on challenging questions about belonging, meaning, purpose and truth, applying ideas of my own in different forms (eg through reasoning, music, art, poetry). <p>Morality, identity and diversity</p> <ul style="list-style-type: none"> I can discuss and respond to ethical questions, including what is right, wrong, just and fair, and the complexity of these questions. I can consider and apply ideas about ways in which diverse communities can live together for the well-being of all, responding thoughtfully to ideas about community, values and respect.

Age-related expectations: Science Working scientifically

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Skills</p> <ul style="list-style-type: none"> • I can ask simple questions and recognise that they can be answered in different ways. • I can observe carefully, using simple equipment. • I can perform simple tests. • I can identify and classify. • I can use my observations and ideas to suggest answers to questions. • I can gather and record data to help in answering questions. 	<p>Skills</p> <ul style="list-style-type: none"> • I can ask relevant questions and use different types of scientific enquiries to answer them. • I can set up simple practical enquiries, comparative and fair tests. • I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. • I can gather, record, classify and present data in a variety of ways to help answer questions. • I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. • I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. • I can identify differences, similarities or changes related to simple scientific ideas and processes. • I can use straightforward scientific evidence to answer questions or to support their findings. 	<p>Skills</p> <ul style="list-style-type: none"> • I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. • I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. • I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. • I can use test results to make predictions to set up further comparative and fair tests. • I can report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written form such as displays and other presentations. • I can identify scientific evidence that has been used to support or refute ideas or arguments. <div data-bbox="1608 794 1975 1423" data-label="Image"> </div>

Age-related vocabulary: Science Working scientifically

Years 1 and 2	Years 3 and 4	Years 5 and 6
<p data-bbox="98 209 779 252">Cycle A and B</p> <ul data-bbox="98 252 779 598" style="list-style-type: none"> • to investigate: to explore something carefully • to sort: to arrange things into groups • to identify: to spot something • to observe: to notice something • to compare: to find similarities and/or differences • to predict: to say that something will happen in the future • data: a collection of information • pattern: something that happens in a repeated and regular way • equipment: the things needed for an investigation  <p>A cartoon illustration of a young boy with spiky blonde hair, wearing round glasses, a white lab coat over a blue shirt and red tie, and brown trousers. He is holding a test tube with red liquid and bubbles in his right hand and gesturing with his left hand.</p>	<p data-bbox="779 209 1460 252">Cycle A and B</p> <ul data-bbox="779 252 1460 965" style="list-style-type: none"> • scientific enquiry: finding things out in a scientific way (comparative and fair tests; noticing patterns; observing changes over time; grouping and classifying things; using secondary sources to find things out) • to record findings: to document the data you have found (eg drawings, labelled diagrams, keys, charts, tables) • to communicate results: to explain what you have found from the data you have recorded • to conclude: to reach a final decision or judgement based on results • to classify: to arrange things in categories based on their characteristics • comparative and fair test: tests which look at the relationship between different variables • relationship: the way in which things are connected • variable: something that can be changed in an experiment • accurate: correct information • systematic: doing something in an ordered, methodical way • secondary sources: somebody else's research which may be necessary when a practical investigation is not possible • practical: actually doing something • 	<p data-bbox="1460 209 2139 252">Cycle A and B</p> <ul data-bbox="1460 252 2139 933" style="list-style-type: none"> • scientific enquiry: there are five types of scientific enquiry: comparative and fair tests, noticing patterns, observing changes over time, grouping and classifying things and using secondary sources to find things out • evidence: facts or information which indicate if something is true or valid • to justify: to show or prove something • control variable: the variables which need to be kept the same during an experiment • independent variable: the variable that is being changed during an experiment • dependent variable: the variable being tested or measure during an experiment • repeat readings: repeating an experiment to ensure that the data gathered is reliable and not a fluke • causal relationships: a cause and effect relationship eg the tighter the string, the higher the pitch • degree of trust: the level of confidence in the results of an investigation • further test: these may be needed if a conclusion cannot be drawn from the results or a new question arises from your results which could be tested • to refute: to prove something to be wrong •

Age-related expectations: Science Biology

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and skills</p> <p>Animals including humans cycle A T3.2 (Y1)</p> <ul style="list-style-type: none"> I can identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals. I can identify and name a variety of common animals that are carnivores, herbivores and omnivores. I can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). I can identify, name, draw and label the basic parts of the human body and say which part of the human body is associated with each sense. <p>Animals including humans cycle B T3.2 (Y2)</p> <ul style="list-style-type: none"> I know that animals, including humans, have offspring, which grow into adults. I can find out about and describe the basic needs of animals, including humans, for survival (water, food and air). I can describe the importance for humans of exercise, eating the right amount of different types of food, and hygiene. <p>Plants cycle A T3.1 (Y1)</p> <ul style="list-style-type: none"> I can identify and name a variety of common, wild and garden plants. I can identify and name various deciduous and evergreen trees. I can identify and describe the basic structure of a variety of common flowering plants, including trees. <p>Plants cycle B T3.1 (Y2)</p> <ul style="list-style-type: none"> I can observe and describe how seeds and bulbs grow into mature plants. I can find out and describe how plants need water, light and suitable temperature to grow and be healthy. <p>Living things and their habitats cycle B T1.1 (Y1)</p> <ul style="list-style-type: none"> I can explore and compare differences between things that are living, dead and things that have never been alive. I know that most living things live in habitats to which they are suited; I can describe how different habitats provide for the basic needs of different kinds of animals and plants; and how they depend on each other. I can identify and name a variety of plants and animals in their habitats, including micro-habitats. I can describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. <p>Seasonal Changes cycle A T2.1 (Y2)</p> <ul style="list-style-type: none"> I can observe changes across the four seasons. I can observe and describe weather associated with the seasons and how day length varies. 	<p>Knowledge and skills</p> <p>Animals including humans cycle A T3.2 (Y3)</p> <ul style="list-style-type: none"> I can identify animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get nutrition from what they eat. I can identify that humans and some other animals have skeletons and muscles for support, protection and movement. <p>Animals including humans cycle B T3.2 (Y4)</p> <ul style="list-style-type: none"> I can describe the simple functions of the basic parts of the digestive system in humans. I can identify the different types of teeth in humans and their simple functions. I can construct and interpret a variety of food chains, identifying producers, predators and prey. <p>Plants cycle A T3.1 (Y3)</p> <ul style="list-style-type: none"> I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. I can investigate the way in which water is transported within plants. I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal <p>Living things and their habitats cycle B T1.1 (Y4)</p> <ul style="list-style-type: none"> I know that living things can be grouped in a variety of ways. I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. I know that environments can change and that this can sometimes pose dangers to living things. 	<p>Knowledge and skills</p> <p>Animals including humans cycle A and B T3.2 (Y5)</p> <ul style="list-style-type: none"> I can describe the changes as humans develop to old age. <p>Animals including humans cycle A and B T3.2 (Y6)</p> <ul style="list-style-type: none"> I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. I am aware of the impact of diet, exercise, drugs and lifestyle on the way my body functions. I can describe the ways in which nutrients and water are transported within animals, including humans. <p>Living things and their habitats cycle B T3.1 (Y5)</p> <ul style="list-style-type: none"> I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. I can describe the life processes of reproduction in some plants and animals. <p>Living things and their habitats cycle B T1.1 (Y6)</p> <ul style="list-style-type: none"> I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. I can give reasons for classifying plants and animals based on specific characteristics. <p>Evolution and inheritance cycle A T2.1 (Y6)</p> <ul style="list-style-type: none"> I know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. I know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Age-related vocabulary: Biology

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Vocabulary</p> <p>Animals including humans cycle A T3.2 (Y1)</p> <ul style="list-style-type: none"> fish: live and breathe in water amphibian: live both in and out of water reptile: covered with scales; lays soft-shelled eggs bird: has feathers; wings; lay eggs mammal: has a backbone; breathes air; grows hair or fur carnivore: eats only animals herbivore: eats only plants omnivore: eats both plants and animals <p>Animals including humans cycle B T3.2 (Y2)</p> <ul style="list-style-type: none"> life-cycle: the journey of a living thing from its birth to its death basic needs: the things that an animal needs to live exercise: moving parts of the body to become stronger and healthier balanced diet: a variety of different types of food that will keep you healthy hygiene: the things we do to keep our body clean and help stop the spread of germs healthy: feeling well and happy <p>Plants cycle A T3.1 (Y1)</p> <ul style="list-style-type: none"> plant: a living thing that has roots in the ground or water flower: the part of a plant where seeds are made tree: tall, woody plants that have a stem called a trunk deciduous: a plant that drops its leaves every year evergreen: a plant that keeps its leaves all year round petal: the often colourful parts of the flower that attract insects leaf: a flat part of a plant attached to the stem stem: the stalk of a plant roots: sit under the soil; they take water and nutrients to the plant <p>Plants cycle B T3.1 (Y2)</p> <ul style="list-style-type: none"> seeds: the part of a plant which can grow into a new plant bulbs: the round underground part of a plant that contains food for the plant (eg onion bulb, daffodil bulb, tulip bulb) basic needs: the things that a plant needs to live temperature: a measurement of hotness or coldness growth: an increase in size healthy: feeling well and happy germinate: when a seed begins to grow into a plant seedling: a young plant grown from a seed 	<p>Vocabulary</p> <p>Animals including humans cycle A T3.2 (Y3)</p> <ul style="list-style-type: none"> balanced diet: a diet that has the right amount of nutrients nutrients: useful substances found in foods skeleton: supports and protects the body, allowing movement exoskeleton: a skeleton that some animals have that is outside their bodies like a suit of armour muscles: important tissue in the body of animals and humans that enables movement joints: where bones meet; there are different types of joint that can move in different ways to make your body move (eg ball and socket, hinge, sliding joints, fixed joints) to contract: when a muscle gets shorter and pulls to relax: when a muscle stops contracting <p>Animals including humans cycle B T3.2 (Y4)</p> <ul style="list-style-type: none"> energy: animals and humans get this from the food they eat; it is used to help us move, grow and repair our body digestion: the process of breaking down food in our bodies oesophagus: the food pipe stomach: a bag of muscle used in the first part of digestion small intestine: the thin tube where broken down food is absorbed large intestine: absorbs water and stores undigested food incisor: a tooth for biting food found at the front of the mouth canine: a tooth for tearing food; they are the pointed teeth next to the incisors molar: a tooth for grinding food found at the back of the mouth <p>Plants cycle A T3.1 (Y3)</p> <ul style="list-style-type: none"> stem: holds the plant upright and supports the leaves; contains tubes that allow water to travel from the roots to the rest of the plant root: helps anchor the plant into the soil; takes up water and nutrients from the soil leaves: catch sunlight and use this to make food photosynthesis: how plants turn sunlight into food pollen: a dust-like powder that causes plants to make new seeds pollination: transferring pollen from the male parts of a flower to the female part of a flower so new plants can be made stamen: the male part of the flower which produces pollen stigma: the female part of a flower that pollen attaches to during pollination seed dispersal: the way seeds get from the parent plant to a new place so that they can grow into new plants 	<p>Vocabulary</p> <p>Animals including humans cycle A and B T3.2 (Y5)</p> <ul style="list-style-type: none"> adolescence: the time in a young person's life when physical and emotional changes leading to adulthood are happening adolescent: a young person in the process of developing from a child into an adult (teenager) teenager: a person aged between 13 and 19 years old adult: a person who is fully grown puberty: the first part of adolescence; when physical changes begin to happen to the body menstruation: a monthly cycle in women; each month an egg is released and if it is not fertilized by a sperm, the female has her period pregnant: the condition of a female animal when there is a baby growing inside her womb gestation period: the amount of time that a baby spends inside its mother's womb before it is born life expectancy: how many years an animal is expected to live <p>Animals including humans cycle A and B T3.2 (Y6)</p> <ul style="list-style-type: none"> circulatory system: system of organs and tissues which circulate blood around the body heart: the organ that pumps blood around the body lungs: the organ that gathers in air as part of breathing blood: the liquid that transports oxygen around the body blood vessels: a series of tubes inside your body that move blood to and from your heart oxygen: the gas in the air that is needed by our bodies carbon dioxide: a gas released when humans and other living things breathe or when materials are burned exercise: the activity of exerting your muscles in various ways to keep fit and healthy addiction: an uncontrollable urge to do something as it makes you feel good <p>Living things and their habitats cycle B T3.1 (Y5)</p> <ul style="list-style-type: none"> reproduction: the process by which organisms create new versions of themselves (offspring); all living things reproduce fertilization: when an egg and pollen (or sperm) join together gestation: when a baby animal develops inside its mother's womb pollination: transferring pollen from the male parts of a flower to the female part of a flower so new plants can be made germination: the process by which seeds grow into plants metamorphosis: a dramatic change in the life cycle of an animal in which it ends up looking totally different sperm: male reproductive cells

Living things and their habitats cycle B T1.1 (Y2)

- **alive:** a living thing; not dead
- **dead:** no longer alive
- **habitat:** the place where an animal or plant lives
- **basic needs:** the things that a plant or animal need to live
- **food chain:** shows who eats who in a habitat
- **predator:** an animal that hunts and eats other animals
- **prey:** an animal that is eaten by another animal

Seasonal Changes cycle A T2.1 (Y1)

- **season:** there are four seasons which have different weather that affects plants and animals
- **spring:** this is the season when plants start to grow and bloom
- **summer:** this is the season when the weather is sunnier and warmer; the amount of time it is light during the day is at its longest
- **autumn:** this is the season when it starts to get cooler and leaves change colour and fall from deciduous trees
- **winter:** this is the coldest season; the amount of time it is light is at its shortest
- **weather:** how hot or cold, wet or dry, calm or stormy it is
- **day:** when you can see the sun and its light
- **night:** when you can't see the sun and its light

Living things and their habitats cycle B T1.1 (Y4)

- **vertebrate:** an animal with a backbone
- **invertebrate:** an animal without a backbone
- **warm-blooded:** animals that can control their body temperature (birds and mammals)
- **cold-blooded:** animals that cannot control their body temperature; their body temperature changes with the air or water temperature (all animals except birds and mammals)
- **organism:** a living thing; animal or plant
- **insect:** an invertebrate with six legs
- **classification key:** a set of questions about the characteristics of organisms; used to identify a living thing or decide which group a living thing belongs to
- **environmental danger:** something that can threaten a habitat



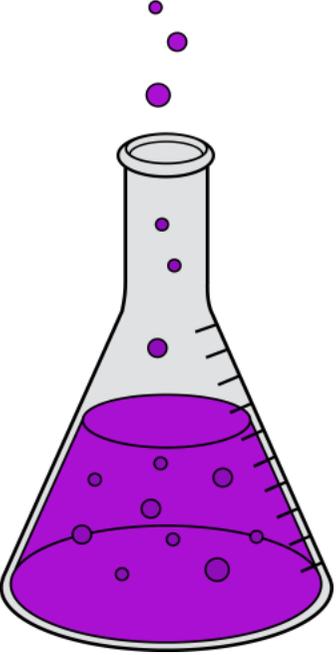
Living things and their habitats cycle B T1.1 (Y6)

- **taxonomy:** the science of naming, describing and classifying organisms
- **organism:** a living thing; animal or plant
- **kingdom:** the highest division in the classification system; there are five kingdoms (animals, plants, fungi, protists, monera)
- **flora:** living things that are plants
- **fauna:** living things that are animals
- **bacteria:** single-celled organisms; most of which can only be seen with a microscope
- **fungi:** organisms that feed on the remains of other living things; can be single-celled or multi-celled (eg mushroom, yeast, mould)
- **micro-organism:** an organism that can only be seen through a microscope

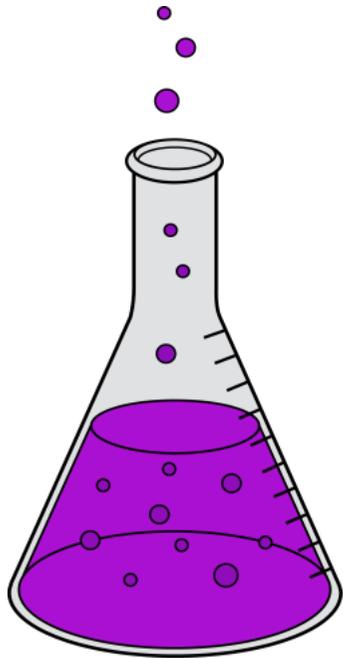
Evolution and inheritance cycle A T2.1 (Y6)

- **evolution:** change in living things over time
- **inherited:** the way that a trait or characteristic is passed to offspring from parents
- **trait:** a quality or characteristic belonging to something
- **adaptation:** a small change that a living thing goes through
- **natural selection:** a process in which living things adapt themselves in order to survive, that they don't have any control over
- **prehistoric:** the time classed is 'before history' as it was so long ago it hasn't been recorded or written
- **variety:** differences between things as part of a whole group
- **fossil:** the prehistoric remains of a plant or animal

Age-related expectations: Science Chemistry

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Knowledge and skills</p> <p>Everyday Materials cycle B T2.1 (Y1)</p> <ul style="list-style-type: none"> I can distinguish between an object and the materials from which it is made. I can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. I can describe the simple physical properties of a variety of everyday materials. I can compare and group together a variety of everyday materials on the basis of their simple physical properties. <p>Everyday Materials cycle A T1.1 (Y2)</p> <ul style="list-style-type: none"> I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, rock, brick, paper and cardboard for particular uses. I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<p>Knowledge and skills</p> <p>States of matter cycle A T1.1 (Y4)</p> <ul style="list-style-type: none"> I can compare and group materials together, according to whether they are solids, liquids or gases. I can observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C). I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. <p>Rocks cycle B T2.1 (Y3)</p> <ul style="list-style-type: none"> I can compare and group different rocks on the basis of their appearance and simple physical properties. I can describe in simple terms how fossils are formed when things that have lived are trapped within rock. I can recognise that soils are made from rocks and organic matter. 	<p>Knowledge and skills</p> <p>Properties and changes of materials cycle A T1.1 (Y5)</p> <ul style="list-style-type: none"> I can compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. I know that some materials will dissolve in liquid to form a solution. I can describe how to recover a substance from a solution. I can use their knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. I can demonstrate that dissolving, mixing and changes of state are reversible changes. I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Age-related vocabulary: Chemistry

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p>Vocabulary</p> <p>Everyday materials cycle A T1.1 (Y2)</p> <ul style="list-style-type: none"> • to identify: to figure out what something is • material: the substance used to make something else • suitable: being right or fit for use • to compare: to find differences and similarities between things • purpose: the reason why something exists • solid: a substance that keeps its size and shape <p>Everyday materials cycle B T2.1 (Y1)</p> <ul style="list-style-type: none"> • material: the substance used to make something else • hard: solid, firm and not easy to break • soft: easy to bend or shape • stretchy: a material that can be made longer or wider without tearing • stiff: not easily bent or changed in shape • shiny: a surface that is very clean or polished • dull: not bright or shiny • smooth: a flat surface • rough: bumpy, not smooth 	<p>Vocabulary</p> <p>States of matter cycle A T1.1 (Y4)</p> <ul style="list-style-type: none"> • matter: another name for 'material' • solid: a state of a material when it cannot change shape, but holds the shape of whatever container it was frozen in • liquid: a state of a material when it can flow from one place to another, and can be poured • gas: a state of a material when it fills the entire space available • boiling point: the temperature at which a liquid turns into a gas • freezing point: the same temperature as a material's melting point. This is the temperature at which a liquid turns into a solid • melting point: the temperature at which a solid melts • condensing: the process when a gas turns into a liquid • evaporation: when a liquid turns into a gas, below its boiling point <p>Rocks cycle B T2.1 (Y3)</p> <ul style="list-style-type: none"> • sedimentary rock: rock made from layers of sediment (small bits of rock) • metamorphic rock: rock that has been changed by heat or pressure • igneous rock: rock formed from magma • permeable: allows water to pass through • impermeable: does not allow water to pass through • fossil: the prehistoric remains of a plant or animal • soil: small particles of rock mixed with decayed plant and animal material • humus: the part of soil made from dead plants and animals • palaeontologist: scientists who study the remains of plants and animals that lived millions of years ago 	<p>Vocabulary</p> <p>Properties and changes of materials cycle A T1.1 (Y5)</p> <ul style="list-style-type: none"> • to dissolve: when a solid mixes with liquid to make a solution • soluble: when something can dissolve • insoluble: when something can't dissolve • mixture: two or more substances that can be separated • solvent: usually (liquid) that does the dissolving • solution: mixture of solid and liquid (you might not be able to see the solid) • chemical reaction: a process in which one or more substances are converted to one or more different substances • reversible: a change that can be undone or reversed • irreversible: a change that can't be undone or reversed 

Age-related expectations: Science Physics

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p data-bbox="107 217 748 316">There are no specific requirement to teach aspects of Physics in Key Stage 1.</p> 	<p data-bbox="788 217 1066 248">Knowledge and skills</p> <p data-bbox="788 252 1021 276">Light cycle A T1.2 (Y3)</p> <ul data-bbox="788 279 1442 456" style="list-style-type: none"> • I know that I need light in order to see things and that dark is the absence of light. I know that light is reflected from surfaces. • I know that light from the sun can be dangerous and that there are ways to protect my eyes. • I know that shadows are formed when the light from a light source is blocked by an opaque object. • I can find patterns in the way that the size of shadows change. <p data-bbox="788 480 1070 504">Electricity cycle A T2.1 (Y4)</p> <ul data-bbox="788 507 1442 807" style="list-style-type: none"> • I can identify common appliances that run on electricity. • I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. • I can identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. • I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. • I can recognise some common conductors and insulators, and associate metals with being good conductors. <p data-bbox="788 831 1034 855">Sound cycle B T1.2 (Y4)</p> <ul data-bbox="788 858 1442 1110" style="list-style-type: none"> • I can identify how sounds are made, associating some of them with something vibrating. • I know that vibrations from sounds travel through a medium to the ear. • I can find patterns between the pitch of a sound and features of the object that produced it. • I can find patterns between the volume of a sound and the strength of the vibrations that produced it. • I know that sounds get fainter as the distance from the sound source increases. <p data-bbox="788 1134 1178 1158">Forces and magnets cycle B T3.1 (Y3)</p> <ul data-bbox="788 1161 1442 1437" style="list-style-type: none"> • I can compare how things move on different surfaces. • I can notice that some forces need contact between two objects, but magnetic forces can act at a distance. • I can observe how magnets attract or repel each other and attract some materials and not others. • I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. • I can describe magnets as having two poles. • I can predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<p data-bbox="1469 217 1747 248">Knowledge and skills</p> <p data-bbox="1469 252 1702 276">Light cycle A T1.2 (Y6)</p> <ul data-bbox="1469 279 2123 528" style="list-style-type: none"> • I am aware that light appears to travel in straight lines. • I can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. • I can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. • I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. <p data-bbox="1469 552 1751 576">Electricity cycle A T3.1 (Y6)</p> <ul data-bbox="1469 579 2123 756" style="list-style-type: none"> • I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. • I can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. • I can use recognised symbols when representing a simple circuit in a diagram. <p data-bbox="1469 780 1720 804">Forces cycle B T1.2 (Y5)</p> <ul data-bbox="1469 807 2123 984" style="list-style-type: none"> • I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • I can identify the effects of air resistance, water resistance and friction that act between moving surfaces. • I know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. <p data-bbox="1469 1008 1814 1032">Earth and space cycle B T2.1 (Y5)</p> <ul data-bbox="1469 1035 2123 1212" style="list-style-type: none"> • I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system. • I can describe the movement of the Moon relative to the Earth. • I can describe the Sun, Earth and Moon as approximately spherical bodies. • I can use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Age-related vocabulary: Science Physics

Years 1 and 2 (expectations for the end of Year 2)	Years 3 and 4 (expectations for the end of Year 4)	Years 5 and 6 (expectations for the end of Year 6)
<p data-bbox="107 252 763 300">There are no specific requirement to teach aspects of Physics in Key Stage 1.</p> 	<p data-bbox="792 252 1021 276">Light cycle A T1.2 (Y3)</p> <ul data-bbox="792 280 1429 512" style="list-style-type: none"> • light source: the place where light originates from • transparent: lets most or all light through • translucent: lets some light through • opaque: does not let light pass through • shadow: darkness caused by light being blocked • to reflect: to change the direction of light using a shiny surface • surface: the top or uppermost layer of something • darkness: the absence of light • mirror: a shiny, polished, reflective surface <p data-bbox="792 539 1070 563">Electricity cycle A T2.1 (Y4)</p> <ul data-bbox="792 568 1440 799" style="list-style-type: none"> • electricity: a type of energy used to power appliances • appliance: a piece of equipment used to perform a specific task • components: the items that make up a circuit • battery: a portable electricity supply • cell: the scientific name for a battery • circuit: the path followed by an electrical current • wire: used to connect components together; • insulator: a material through which electricity cannot flow • conductor: a material through which electricity can flow <p data-bbox="792 826 1032 850">Sound cycle B T1.2 (Y4)</p> <ul data-bbox="792 855 1435 1102" style="list-style-type: none"> • sound source: something that makes a sound • vibration: when something moves up or down, backwards and forwards or side to side quickly • volume: how loud a sound is • pitch: how high or low a sound is • medium: a substance through which sound waves can travel • decibels: a unit of measurement used to measure how loud or faint a sound is • insulator: a substance that absorbs sound so that it can't travel • conductor: a substance that allows sound to travel through it <p data-bbox="792 1129 1173 1153">Forces and magnets cycle B T3.1 (Y3)</p> <ul data-bbox="792 1158 1413 1457" style="list-style-type: none"> • force: a push, pull, twist or turn caused when two objects interact with each other • contact: touching • non-contact: not touching • magnet: an object or device that attracts iron or another magnetic material • magnetic: attracted to a magnet • to attract: to pull towards • to repel: to push away • pole: area of a magnet where the magnetic force is strongest • compass: a device that aids navigation by pointing to Earth's North and South poles 	<p data-bbox="1471 252 1702 276">Light cycle A T1.2 (Y6)</p> <ul data-bbox="1471 280 2114 528" style="list-style-type: none"> • pupil: the black hole in the centre of the eye that lets light in • line chart: a graph with points connected by lines to show how something changes in value as time goes by or as something else changes • to cast: to cause light or shadow to appear on a surface • reflection: light bouncing off the surface of an object • light ray: the path that light takes • periscope: a vertical tube containing a set of mirrors that gives you a view of what is above you when you look through the bottom of the tube <p data-bbox="1471 555 1753 579">Electricity cycle A T3.1 (Y6)</p> <ul data-bbox="1471 584 2123 727" style="list-style-type: none"> • current: the movement of electricity through a circuit • fuse: a safety device that will melt and make a break in a circuit if there is too much electricity • mains: the electricity that comes from a socket • terminals: the ends of a battery; one is positive and one is negative <p data-bbox="1471 754 1720 778">Forces cycle B T1.2 (Y5)</p> <ul data-bbox="1471 783 2123 1062" style="list-style-type: none"> • gravity: the force that attracts something towards the Earth's centre • friction: the force made when two objects rub together • air resistance: the resistance of air to forward movement • water resistance: the resistance of water to forward movement • non-contact force: a force that does not need to touch an object to work (eg magnetic force) • force meter: a piece of equipment for measuring forces • Newton: the unit of force • mechanism: a group of moving parts that work together • lever: a simple mechanism used to help lift objects <p data-bbox="1471 1090 1816 1114">Earth and space cycle B T2.1 (Y5)</p> <ul data-bbox="1471 1118 2123 1445" style="list-style-type: none"> • day-time: the time when part of the Earth is in daylight • night-time: the time when part of the Earth is in darkness • geocentric: the Earth is at the centre of the Solar System (Earth-centred) • heliocentric: the Sun is at the centre of the Solar System (Sun-centred) • orbit: the path of a planet or moon around another celestial object • planet: is round; orbits a star; has cleared smaller objects away from its orbit • solar system: a series of planets that orbit a star • star: an astronomical body that produces its own energy • time zone: a geographical region where the same time is set