



Horningsham Primary School Curriculum Overview Owls Cycle A



Together
we learn

Principles

After a review of our current provision, the trend in standards we achieve at the end of KS1 and KS2 and the statutory requirements of the National Curriculum 2014, we have refined and enhanced the curriculum with the overall aim of enabling

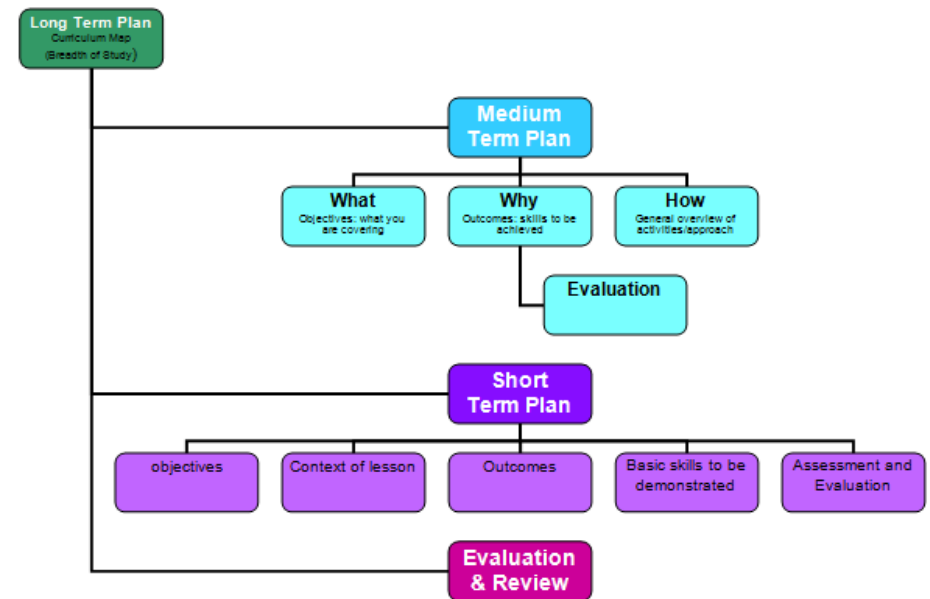
- real opportunities for learning
- engaging and enjoyable learning
- high academic and personal achievement
- manageable, creative and exciting teaching opportunities

Our curriculum map ensures that all aspects of the National Curriculum are covered, whilst at the same time not being overloaded with content so that deep learning is possible and outcomes are focussed on skills, application of skills and knowledge, skills and understanding.

The curriculum map serves to provide teachers with subject based focus areas from the National Curriculum. Staff can then identify the key skills to focus on for each curriculum area at appropriate levels for the children in their class. The Overview for each class has been planned to enable teachers to combine subjects together in a cross curricular and meaningful way to make teaching and learning fun, vibrant, challenging and meaningful. Thematic based learning is now possible and practical for delivering the curriculum.

There is a two year rolling programme for Woodpeckers and three year programme for Owls. Robins will operate a one year rolling programme (except for RE, which will be a two year rolling programme). Using these, staff will create a year overview set into three terms with all areas of study indicated (teachers have the flexibility to move focus areas to facilitate their vision for thematic learning).

Planning



- The following overviews provide the Long Term Map and breadth of study across the curriculum.
- Medium term plans are produced using an agreed format, identifying clearly the development of learning and integration of different subjects for a thematic approach. These are all shared and saved on our shared drive.
- Short term plans are organised by the staff using a format that serves this purpose most effectively for them. The same format is used for mathematics as children are organised into sets.



Science

Y6 Evolution and inheritance

- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Y5 Properties and changes of materials

- 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
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- demonstrate that dissolving, mixing and changes of state are reversible changes
- 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.

Y4 Animals, including humans

- describe the simple functions of the basic parts of the digestive system in humans
- identify the different types of teeth in humans and their simple functions
- construct and interpret a variety of food chains, identifying producers, predators and prey.

Y4 Living things and their habitats

- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.

Y6 Living things and their habitats

- 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
- give reasons for classifying plants and animals based on specific characteristics.

Music

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music.

RE

Symbols & Religious Expression

Explore how art, architecture and poetry express religious beliefs & ideas.
Christianity, Hinduism, Islam.

Inspirational People

Explore how and why people follow religious leaders.
Christianity, Islam and Sikhism.

Worship, Pilgrimage and Sacred Places

Explore where, how and why people worship. Importance of pilgrimage to religious believers.
Christianity, Islam, Hinduism and Sikhism.

Geography

Locational knowledge

- locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time
- identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)

Place knowledge

- understand geographical similarities and differences through the study of human and physical geography of a region within North or South America

Design and Technology

Design

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

Make

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

Evaluate

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

Technical knowledge

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

Cooking and nutrition

- understand and apply the principles of a healthy and varied diet

PE

Swimming, athletics, netball, football, dance, gymnastics, hockey, tennis, cricket/rounders

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.
- swim competently, confidently and proficiently over a distance of at least 25 metres
- use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
- perform safe self-rescue in different water-based situations.

Computing

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

Foreign Languages

- present ideas and information orally to a range of audiences*
- read carefully and show understanding of words, phrases and simple writing
- appreciate stories, songs, poems and rhymes in the language
- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary
- write phrases from memory, and adapt these to create new sentences, to express ideas clearly
- describe people, places, things and actions orally* and in writing
- understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.

Art and Design

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

History

Britain's settlement by Anglo-Saxons and Scots, e.g.

- Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire
- Scots invasions from Ireland to north Britain (now Scotland)
- Anglo-Saxon invasions, settlements and kingdoms: place names and village life
 - Anglo-Saxon art and culture
 - Christian conversion – Canterbury, Iona and Lindisfarne

The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor, e.g

- Viking raids and invasion
- resistance by Alfred the Great and Athelstan, first king of England
- further Viking invasions and Danegeld
- Anglo-Saxon laws and justice
- Edward the Confessor and his death in 1066

A non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

Science

Purpose of study	<ul style="list-style-type: none"> • A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. • Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. • Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. • They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.
Aims	<p>The national curriculum for science aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ▪ develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics ▪ develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them ▪ are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
Scientific knowledge and conceptual understanding	<ul style="list-style-type: none"> • The programmes of study describe a sequence of knowledge and concepts. • While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. • Insecure, superficial understanding will not allow genuine progression: pupils may struggle at key points of transition (such as between primary and secondary school), build up serious misconceptions, and/or have significant difficulties in understanding higher-order content. • Pupils should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. • They should also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. • The social and economic implications of science are important but, generally, they are taught most appropriately within the wider school curriculum: teachers will wish to use different contexts to maximise their pupils' engagement with and motivation to study science.
The nature, processes and methods of science	<ul style="list-style-type: none"> • 'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. • It should not be taught as a separate strand. • The notes and guidance give examples of how 'working scientifically' might be embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. • These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. • Pupils should seek answers to questions through collecting, analysing and presenting data. • 'Working scientifically' will be developed further at key stages 3 and 4, once pupils have built up sufficient understanding of science to engage meaningfully in more sophisticated discussion of experimental design and control.

Spoken language	<ul style="list-style-type: none"> The national curriculum for science reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely. They must be assisted in making their thinking clear, both to themselves and others, and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.
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School curriculum	<ul style="list-style-type: none"> The programmes of study for science are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage if appropriate. All schools are also required to set out their school curriculum for science on a year-by-year basis and make this information available online.
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Attainment targets	By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the content indicated as being 'non-statutory'.
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Lower Key Stage 2 Focus	Upper Key Stage 2 Focus
<ul style="list-style-type: none"> The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out. 'Working scientifically' is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge. 	<ul style="list-style-type: none"> The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. 'Working and thinking scientifically' is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read, spell and pronounce scientific vocabulary correctly.

Working Scientifically	
Lower KS2 Statutory Requirements	Upper KS2 Statutory Requirements
<p>During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> asking relevant questions and using different types of scientific enquiries to answer them setting up simple practical enquiries, comparative and fair tests making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers gathering, recording, classifying and presenting data in a variety of ways to help in answering questions recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions identifying differences, similarities or changes related to simple scientific ideas and processes using straightforward scientific evidence to answer questions or to support their findings. 	<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments.
Notes and guidance (non statutory)	Notes and guidance (non statutory)
<ul style="list-style-type: none"> Pupils in years 3 and 4 should be given a range of scientific experiences to enable them to raise their own questions about the world around them. They should start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; recognise when a simple fair test is necessary and help to decide how to set it up; talk about criteria for grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. They should also recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences. <i>These opportunities for working scientifically should be provided across years 3 and 4 so that the expectations in the programme of study can be met by the end of year 4. Pupils are not expected to cover each aspect for every area of study.</i> 	<ul style="list-style-type: none"> Pupils in years 5 and 6 should use their science experiences to: explore ideas and raise different kinds of questions; select and plan the most appropriate type of scientific enquiry to use to answer scientific questions; recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. They should use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. They should make their own decisions about what observations to make, what measurements to use and how long to make them for, and whether to repeat them; choose the most appropriate equipment to make measurements and explain how to use it accurately. They should decide how to record data from a choice of familiar approaches; look for different causal relationships in their data and identify evidence that refutes or supports their ideas. They should use their results to identify when further tests and observations might be needed; recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. They should use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas and should talk about how scientific ideas have developed over time. <i>These opportunities for working scientifically should be provided across years 5 and 6 so that the expectations in the programme of study can be met by the end of year 6. Pupils are not expected to cover each aspect for every area of study.</i>

Y4 Living things and their habitats

Statutory Requirements	Notes and guidance (non statutory)
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">recognise that living things can be grouped in a variety of waysexplore and use classification keys to help group, identify and name a variety of living things in their local and wider environmentrecognise that environments can change and that this can sometimes pose dangers to living things.	<ul style="list-style-type: none">Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat.They should identify how the habitat changes throughout the year.Pupils should explore possible ways of grouping a wide selection of living things that include animals and flowering plants and non-flowering plants.Pupils could begin to put vertebrate animals into groups such as fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects.Note: Plants can be grouped into categories such as flowering plants (including grasses) and non-flowering plants, such as ferns and mosses.Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation.Pupils might work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.

Y4 Animals, including humans

Statutory Requirements	Notes and guidance (non statutory)
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">describe the simple functions of the basic parts of the digestive system in humansidentify the different types of teeth in humans and their simple functionsconstruct and interpret a variety of food chains, identifying producers, predators and prey.	<ul style="list-style-type: none">Pupils should be introduced to the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that help them to understand their special functions.Pupils might work scientifically by: comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them.They might draw and discuss their ideas about the digestive system and compare them with models or images.

Y5 Properties and changes of materials

Statutory Requirements

Pupils should be taught to:

- 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
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- demonstrate that dissolving, mixing and changes of state are reversible changes
- 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.

Notes and guidance (non statutory)

- Pupils should build a more systematic understanding of materials by exploring and comparing the properties of a broad range of materials, including relating these to what they learnt about magnetism in year 3 and about electricity in year 4.
- They should explore reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes.
- Pupils should explore changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda.
- They should find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton.
- **Note:** Pupils are not required to make quantitative measurements about conductivity and insulation at this stage. It is sufficient for them to observe that some conductors will produce a brighter bulb in a circuit than others and that some materials will feel hotter than others when a heat source is placed against them.
- Safety guidelines should be followed when burning materials.
- Pupils might work scientifically by: carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?'
- They might compare materials in order to make a switch in a circuit.
- They could observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes.
- They might research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials.

Y6 Living things and their habitats

Statutory Requirements

Pupils should be taught to:

- 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
- give reasons for classifying plants and animals based on specific characteristics.

Notes and guidance (non statutory)

- Pupils should build on their learning about grouping living things in year 4 by looking at the classification system in more detail.
- They should be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided.
- Through direct observations where possible, they should classify animals into commonly found invertebrates (such as insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals).
- They should discuss reasons why living things are placed in one group and not another.
- Pupils might find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification.
- Pupils might work scientifically by: using classification systems and keys to identify some animals and plants in the immediate environment.
- They could research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.

Y6 Evolution and inheritance

Statutory Requirements

Pupils should be taught to:

- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Notes and guidance (non statutory)

- Building on what they learned about fossils in the topic on rocks in year 3, pupils should find out more about how living things on earth have changed over time.
- They should be introduced to the idea that characteristics are passed from parents to their offspring, for instance by considering different breeds of dogs, and what happens when, for example, labradors are crossed with poodles.
- They should also appreciate that variation in offspring over time can make animals more or less able to survive in particular environments, for example, by exploring how giraffes' necks got longer, or the development of insulating fur on the arctic fox.
- Pupils might find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution.
- **Note:** At this stage, pupils are not expected to understand how genes and chromosomes work.
- Pupils might work scientifically by: observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels.
- They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.

Computing

Purpose of study

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

Aims

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

Subject Content: Key Stage 2

Pupils should be taught to:

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

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.
Schools are not required by law to teach the example content

Design and Technology

Purpose of study	Aims
<ul style="list-style-type: none"> Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. 	<p>The national curriculum for design and technology aims to ensure that all pupils:</p> <ul style="list-style-type: none"> develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users critique, evaluate and test their ideas and products and the work of others understand and apply the principles of nutrition and learn how to cook.
Subject Content: Key Stage 2	
<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].</p> <p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] <p>apply their understanding of computing to program, monitor and control their products.</p>	<p>Cooking and nutrition</p> <p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.</p> <ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet <p>Attainment targets</p> <p>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content</p>

Geography

Purpose of study	Aims
<ul style="list-style-type: none"> • A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. • Teaching should equip pupils with knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human processes. • As pupils progress, their growing knowledge about the world should help them to deepen their understanding of the interaction between physical and human processes, and of the formation and use of landscapes and environments. • Geographical knowledge, understanding and skills provide the frameworks and approaches that explain how the Earth's features at different scales are shaped, interconnected and change over time. 	<p>The national curriculum for geography aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ▪ develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes ▪ understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time ▪ are competent in the geographical skills needed to: <ul style="list-style-type: none"> ▪ collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes ▪ interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS) ▪ communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.
Subject Content: Key Stage 2	
<p>Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.</p> <p>Pupils should be taught to:</p> <p>Locational knowledge</p> <ul style="list-style-type: none"> ▪ locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities ▪ name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time ▪ identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night) <p>Place knowledge</p> <ul style="list-style-type: none"> ▪ understand geographical similarities and differences through the study of human and physical geography of a region within North or South America 	
Attainment targets	By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content

History

Purpose of study		Aims	
<ul style="list-style-type: none">• A high-quality history education will help pupils gain a coherent knowledge and understanding of Britain’s past and that of the wider world.• It should inspire pupils’ curiosity to know more about the past.• Teaching should equip pupils to ask perceptive questions, think critically, weigh evidence, sift arguments, and develop perspective and judgement.• History helps pupils to understand the complexity of people’s lives, the process of change, the diversity of societies and relationships between different groups, as well as their own identity and the challenges of their time.		<p>The national curriculum for history aims to ensure that all pupils:</p> <ul style="list-style-type: none">▪ know and understand the history of these islands as a coherent, chronological narrative, from the earliest times to the present day: how people’s lives have shaped this nation and how Britain has influenced and been influenced by the wider world▪ know and understand significant aspects of the history of the wider world: the nature of ancient civilisations; the expansion and dissolution of empires; characteristic features of past non-European societies; achievements and follies of mankind▪ gain and deploy a historically grounded understanding of abstract terms such as ‘empire’, ‘civilisation’, ‘parliament’ and ‘peasantry’▪ understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses▪ understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed▪ gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.	
Subject Content: Key Stage 2			
<p>Britain’s settlement by Anglo-Saxons and Scots e.g</p> <ul style="list-style-type: none">▪ Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire▪ Scots invasions from Ireland to north Britain (now Scotland)▪ Anglo-Saxon invasions, settlements and kingdoms: place names and village life▪ Anglo-Saxon art and culture▪ Christian conversion – Canterbury, Iona and Lindisfarne <p>The Viking and Anglo-Saxon struggle for the Kingdom of. England to the time of Edward the Confessor e.g</p> <ul style="list-style-type: none">▪ Viking raids and invasion▪ resistance by Alfred the Great and Athelstan, first king of England▪ further Viking invasions and Danegeld▪ Anglo-Saxon laws and justice▪ Edward the Confessor and his death in 1066 <p>A non-European society that provides contrasts with British one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.</p>		<ul style="list-style-type: none">▪ Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study.▪ They should note connections, contrasts and trends over time and develop the appropriate use of historical terms.▪ They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.▪ They should construct informed responses that involve thoughtful selection and organisation of relevant historical information.▪ They should understand how our knowledge of the past is constructed from a range of sources.▪ In planning to ensure the progression described above through teaching the British, local and world history outlined below, teachers should combine overview and depth studies to help pupils understand both the long arc of development and the complexity of specific aspects of the content.	
Attainment targets	By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content		

Foreign Languages

Purpose of study		Aims	
<ul style="list-style-type: none">• Learning a foreign language is a liberation from insularity and provides an opening to other cultures.• A high-quality languages education should foster pupils’ curiosity and deepen their understanding of the world.• The teaching should enable pupils to express their ideas and thoughts in another language and to understand and respond to its speakers, both in speech and in writing.• It should also provide opportunities for them to communicate for practical purposes, learn new ways of thinking and read great literature in the original language.• Language teaching should provide the foundation for learning further languages, equipping pupils to study and work in other countries.		<p>The national curriculum for languages aims to ensure that all pupils:</p> <ul style="list-style-type: none">▪ understand and respond to spoken and written language from a variety of authentic sources▪ speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation▪ can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt▪ discover and develop an appreciation of a range of writing in the language studied.	
Subject Content: Upper Key Stage2			
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">▪ present ideas and information orally to a range of audiences*▪ read carefully and show understanding of words, phrases and simple writing▪ appreciate stories, songs, poems and rhymes in the language▪ broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary▪ write phrases from memory, and adapt these to create new sentences, to express ideas clearly▪ describe people, places, things and actions orally* and in writing▪ understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. <p>The starred (*) content above will not be applicable to ancient languages.</p>		<ul style="list-style-type: none">▪ Teaching may be of any modern or ancient foreign language and should focus on enabling pupils to make substantial progress in one language.▪ The teaching should provide an appropriate balance of spoken and written language and should lay the foundations for further foreign language teaching at key stage 3.▪ It should enable pupils to understand and communicate ideas, facts and feelings in speech and writing, focused on familiar and routine matters, using their knowledge of phonology, grammatical structures and vocabulary.▪ The focus of study in modern languages will be on practical communication.▪ If an ancient language is chosen the focus will be to provide a linguistic foundation for reading comprehension and an appreciation of classical civilisation.▪ Pupils studying ancient languages may take part in simple oral exchanges, while discussion of what they read will be conducted in English.▪ A linguistic foundation in ancient languages may support the study of modern languages at key stage 3.	
Attainment targets	By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content		

Art and Design

Purpose of study		Aims
<ul style="list-style-type: none">• Art, craft and design embody some of the highest forms of human creativity.• A high-quality art and design education should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design.• As pupils progress, they should be able to think critically and develop a more rigorous understanding of art and design.• They should also know how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.		<p>The national curriculum for art and design aims to ensure that all pupils:</p> <ul style="list-style-type: none">▪ produce creative work, exploring their ideas and recording their experiences▪ become proficient in drawing, painting, sculpture and other art, craft and design techniques▪ evaluate and analyse creative works using the language of art, craft and design▪ know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms.
Subject Content: Key Stage 2		
<p>Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.</p> <ul style="list-style-type: none">▪ create sketch books to record their observations and use them to review and revisit ideas▪ improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [e.g. pencil, charcoal, paint, clay]▪ develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.		
Attainment targets	By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content	

Music

Purpose of study	Aims
<ul style="list-style-type: none"> • Music is a universal language that embodies one of the highest forms of creativity. • A high-quality music education should engage and inspire pupils to develop a love of music and their talent as musicians, and so increase their self-confidence, creativity and sense of achievement. • As pupils progress, they should develop a critical engagement with music, allowing them to compose, and to listen with discrimination to the best in the musical canon. 	<p>The national curriculum for music aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ▪ perform, listen to, review and evaluate music across a range of historical periods, genres, styles and traditions, including the works of the great composers and musicians ▪ learn to sing and to use their voices, to create and compose music on their own and with others, have the opportunity to learn a musical instrument, use technology appropriately and have the opportunity to progress to the next level of musical excellence ▪ understand and explore how music is created, produced and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations.
Subject Content: Key Stage 2	
<p>Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ▪ play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression ▪ improvise and compose music for a range of purposes using the inter-related dimensions of music ▪ listen with attention to detail and recall sounds with increasing aural memory ▪ use and understand staff and other musical notations ▪ appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians ▪ develop an understanding of the history of music. 	
Attainment targets	<p>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.</p> <p>Schools are not required by law to teach the example content</p>

PE

PE		
Purpose of study		Aims
<ul style="list-style-type: none"> A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically-demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect. 		<p>The national curriculum for physical education aims to ensure that all pupils:</p> <ul style="list-style-type: none"> develop competence to excel in a broad range of physical activities are physically active for sustained periods of time engage in competitive sports and activities lead healthy, active lives.
Subject Content: Key Stage 2		Sports to cover
<p>Pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> use running, jumping, throwing and catching in isolation and in combination play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics] perform dances using a range of movement patterns take part in outdoor and adventurous activity challenges both individually and within a team compare their performances with previous ones and demonstrate improvement to achieve their personal best. <p>Swimming and water safety</p> <p>All schools must provide swimming instruction either in key stage 1 or key stage 2.</p> <p>In particular, pupils should be taught to:</p> <ul style="list-style-type: none"> swim competently, confidently and proficiently over a distance of at least 25 metres use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] perform safe self-rescue in different water-based situations. 		<p>swimming athletics netball football dance gymnastics hockey tennis cricket / rounders</p>
Attainment targets	<p>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.</p> <p>Schools are not required by law to teach the example content</p>	

RE

KS2 Wiltshire RE Syllabus

Principal Aim of RE

To engage pupils in enquiring into key questions arising from study of religion and belief, so as to promote their personal and spiritual development.

Focus statement

During Key Stage 2 pupils should begin to engage in a more systematic study of religion whilst at the same time reflecting on their own beliefs, values and questions in light of what they are learning. Pupils should study Christianity throughout the four years and also aspects of at least two other principal religions covering Western and Eastern traditions. They should begin to recognise the impact of religion and belief locally, nationally and globally and consider the different forms of religious expression.

Pupils should

- consider the beliefs, teachings, practices and ways of life central to religion learn about sacred texts and other sources and consider their meanings begin to recognise diversity in religion, learning about similarities and
- differences both within and between Religions and Beliefs, and the importance
- of dialogue between them
- extend the range and use of specialist vocabulary
- recognise the challenges involved in distinguishing between ideas of right and wrong, and valuing what is good and true
- communicate their ideas, recognising other people's viewpoints
- consider their own beliefs and values and those of others in the light of their learning in religious education

		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Cycle A	Theme	Symbols & Religious Expression		Inspirational People		Worship, Pilgrimage and Sacred Places	
	Key Question	How do art, architecture and poetry express religious beliefs and ideas?		How does a Christian follow Jesus? Who was Muhammad/Guru Nanak? Why and how do people follow these leaders?		Where, how and why do people worship? Why is pilgrimage important to some religious believers?	
	Religious Focus	Christianity, Hinduism, Islam KS2 Unit 7		Christianity, Islam and Sikhism Key Stage 2 Units 4 and 5 (Discovery RE: Y4 Summer 2)		Christianity, Islam, Hinduism and Sikhism Key Stage 2 Units 8 and 9 (Discovery RE: Y4 Summer 1+2, Y5 Autumn 1+2, Y5 Summer 1+2)	
	Outcome	Begin to explain and identify how art, architecture and poetry convey religious beliefs. Begin to express their beliefs in this way.		Identify what they admire in people and why. Identify key religious heroes.		Describe the importance of different types of symbols and worship to believers, including pilgrimage.	