

Weaving Scientific Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
Science**



Knowledge, Skills and Understanding breakdown for Working Scientifically

Year 6

Planning	Obtaining and presenting evidence	Considering evidence and evaluating
<ul style="list-style-type: none"> • Can they explore different ways to test an idea, choose the best way, and give reasons? • Can they vary one factor whilst keeping the others the same in an experiment? Can they explain why they do this? • Can they plan and carry out an investigation by controlling variables fairly and accurately? • Can they make a prediction with reasons? • Can they use information to help make a prediction? • Can they use test results to make further predictions and set up further comparative tests? • Can they explain, in simple terms, a scientific idea and what evidence supports it? • Can they present a report of their findings through writing, display and presentation? 	<ul style="list-style-type: none"> • Can they explain why they have chosen specific equipment? (incl ICT based equipment) • Can they decide which units of measurement they need to use? • Can they explain why a measurement needs to be repeated? • Can they record their measurements in different ways? (incl bar charts, tables and line graphs) • Can they take measurements using a range of scientific equipment with increasing accuracy and precision? 	<ul style="list-style-type: none"> • Can they find a pattern from their data and explain what it shows? • Can they use a graph to answer scientific questions? • Can they link what they have found out to other science? • Can they suggest how to improve their work and say why they think this? • Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models? • Can they report findings from investigations through written explanations and conclusions? • Can they identify scientific evidence that has been used to support to refute ideas or arguments? • Can they report and present 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?

Year 6 (Challenging)

<ul style="list-style-type: none"> • Can they choose the best way to answer a question? • Can they use information from different sources to answer a question and plan an investigation? • Can they make a prediction which links with other scientific knowledge? • Can they identify the key factors when planning a fair test? • Can they explain how a scientist has used their scientific understanding plus good ideas to have a breakthrough? 	<ul style="list-style-type: none"> • Can they plan in advance which equipment they will need and use it well? • Can they make precise measurements? • Can they collect information in different ways? • Can they record their measurements and observations systematically? • Can they explain qualitative and quantitative data? 	<ul style="list-style-type: none"> • Can they draw conclusions from their work? • Can they link their conclusions to other scientific knowledge? • Can they explain how they could improve their way of working?
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Knowledge, Skills and Understanding breakdown for Living Things, their Habitats and Animals, including humans

Year 6

Evolution and Inheritance	Living Things & their habitats	Animals, including humans
<ul style="list-style-type: none"> • Can they recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago? • Can they recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents? • Can they give reasons why offspring are not identical to each other or to their parents? • Can they explain the process of evolution and describe the evidence for this? • Can they identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution? 	<ul style="list-style-type: none"> • Can they describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences including microorganisms, plants and animals? • Can they give reasons for classifying plants and animals based on specific characteristics? 	<ul style="list-style-type: none"> • Can they identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood? • Can they recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function? • Can they describe the ways in which nutrients and water are transported within animals, including humans?

Year 6 (Challenging)

<ul style="list-style-type: none"> • Can they talk about the work of Charles Darwin, Mary Anning and Alfred Wallace? • Can they explain how some living things adapt to survive in extreme conditions? • Can they analyse the advantages and disadvantages of specific adaptations, such as being on two rather than four feet? • Can they begin to understand what is meant by DNA? 	<ul style="list-style-type: none"> • Can they explain why classification is important? • Can they readily group animals into reptiles, fish, amphibians, birds and mammals? • Can they sub divide their original groupings and explain their divisions? • Can they group animals into vertebrates and invertebrates? • Can they find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification? 	<ul style="list-style-type: none"> • Can they explore the work of medical pioneers, for example, William Harvey and Galen and recognise how much we have learnt about our bodies? • Can they compare the organ systems of humans to other animals? • Can they make a diagram of the human body and explain how different parts work and depend on one another? • Can they name the major organs in the human body? • Can they locate the major human organs? • Can they make a diagram that outlines the main parts of a body?
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Knowledge, Skills and Understanding breakdown for Light and Electricity

Year 6

Electricity

- Can they identify and name the basic parts of a simple electric series circuit? (cells, wires, bulbs, switches, buzzers)
- Can they compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers, the on/off position of switches?
- Can they use recognised symbols when representing a simple circuit in a diagram?

Light

- Can they recognise that light appears to travel in straight lines?
- Can they 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?
- Can they 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?
- Can they use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them?

Year 6 (Challenging)

- Can they make their own traffic light system or something similar?
- Can they explain the danger of short circuits?
- Can they explain what a fuse is?
- Can they explain how to make changes in a circuit?
- Can they explain the impact of changes in a circuit?
- Can they explain the effect of changing the voltage of a battery?

- Can they explain how different colours of light can be created?
- Can they use and explain how simple optical instruments work? (periscope, telescope, binoculars, mirror, magnifying glass, Newton's first reflecting telescope)
- Can they explore a range of phenomena, including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters.

Weaving Historical Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
History**



National Curriculum Requirements of History at Key Stage 2

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

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

Pupils should be taught about:

Changes in Britain from the Stone Age to the Iron Age

This could include:

- late Neolithic hunter-gatherers and early farmers, e.g. Skara Brae
- Bronze Age religion, technology and travel, e.g. Stonehenge
- Iron Age hill forts: tribal kingdoms, farming, art and culture

The Roman Empire and its impact on Britain

This could include:

- Julius Caesar's attempted invasion in 55-54 BC
- the Roman Empire by AD 42 and the power of its army
- successful invasion by Claudius and conquest, including Hadrian's Wall
- British resistance, e.g. Boudica
- "Romanisation" of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity

National Curriculum Requirements of History at Key Stage 2

Pupils should be taught about:

Britain's settlement by Anglo-Saxons and Scots

This could include:

- 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

A local history study

For example:

- a depth study linked to one of the British areas of study listed above
- a study over time tracing how several aspects of national history are reflected in the locality (this can go beyond 1066)
- a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality

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

This could include:

- 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 study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066

For example:

- the changing power of monarchs using case studies such as John, Anne and Victoria
- changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century
- the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day
- a significant turning point in British history, e.g. the first railways or the Battle of Britain

National Curriculum Requirements of History at Key Stage 2

Pupils should be taught about:

The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China.

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.

Ancient Greece – a study of Greek life and achievements and their influence on the western world.

Knowledge, Skills and Understanding breakdown for History

Year 6

Chronological understanding	Knowledge and interpretation	Historical enquiry
<ul style="list-style-type: none"> • Can they say where a period of history fits on a timeline? • Can they place a specific event on a timeline by decade? • Can they place features of historical events and people from past societies and periods in a chronological framework? 	<ul style="list-style-type: none"> • Can they summarise the main events from a specific period in history, explaining the order in which key events happened? • Can they summarise how Britain has had a major influence on world history? • Can they summarise what Britain may have learnt from other countries and civilizations through time gone by and more recently? • Can they describe features of historical events and people from past societies and periods they have studied? • Can they recognise and describe differences and similarities/ changes and continuity between different periods of history? 	<ul style="list-style-type: none"> • Can they look at two different versions and say how the author may be attempting to persuade or give a specific viewpoint? • Can they identify and explain their understanding of propagandaa? • Can they describe a key event from Britain's past using a range of evidence from different sources?

Year 6 (Challenging)

<ul style="list-style-type: none"> • Do they appreciate that some ancient civilizations showed greater advancements than people who lived centuries after them? 	<ul style="list-style-type: none"> • Can they suggest relationships between causes in history? • Can they appreciate how Britain once had an Empire and how that has helped or hindered our relationship with a number of countries today? • Can they trace the main events that define Britain's journey from a mono to a multi-cultural society? 	<ul style="list-style-type: none"> • Can they suggest why there may be different interpretations of events? • Can they suggest why certain events, people and changes might be seen as more significant than others? • Can they pose and answer their own historical questions?
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Weaving Geographical Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
Geography**



National Curriculum Requirements of Geography at Key Stage 2

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

Pupils should be taught to:

Location knowledge

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

Place knowledge

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

National Curriculum Requirements of Geography at Key Stage 2

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

Pupils should be taught to:

Human and physical geography

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

Geographical skills and fieldwork

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

Knowledge, Skills and Understanding breakdown for Geography

Year 6

Geographical Enquiry	Physical Geography	Human Geography	Geographical Knowledge
<ul style="list-style-type: none"> • Can they confidently explain scale and use maps with a range of scales? • Can they choose the best way to collect information needed and decide the most appropriate units of measure? • Can they make careful measurements and use the data? • Can they use OS maps to answer questions? • Can they use maps, aerial photos, plans and web resources to describe what a locality might be like? 	<ul style="list-style-type: none"> • Can they give extended descriptions of the physical features of different places around the world? • Can they describe how some places are similar and others are different in relation to their human features? • Can they accurately use a 4 figure grid reference? • Can they create sketch maps when carrying out a field study? 	<ul style="list-style-type: none"> • Can they give an extended description of the human features of different places around the world? • Can they map land use with their own criteria? • Can they describe how some places are similar and others are different in relation to their physical features? 	<ul style="list-style-type: none"> • Can they recognise key symbols used on ordnance survey maps? • Can they name the largest desert in the world? • Can they identify and name the Tropics of Cancer and Capricorn as well as the Arctic and Antarctic circles? • Can they explain how the time zones work?

Year 6 (Challenging)

<ul style="list-style-type: none"> • Can they define geographical questions to guide their research? • Can they use a range of self selected resources to answer questions? 	<ul style="list-style-type: none"> • Can they plan a journey to another part of the world which takes account of time zones? • Do they understand the term sustainable development? Can they use it in different contexts? 	<ul style="list-style-type: none"> • Can they explain how human activity has caused an environment to change? • Can they analyse population data on two settlements and report on findings and questions raised? 	<ul style="list-style-type: none"> • Can they name and locate the main canals that link different continents? • Can they name the main lines of latitude and meridian of longitude?
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Weaving Computing Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
Computing**



National Curriculum Requirements of Computing at 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

Knowledge, Skills and Understanding breakdown for Computing: Year 6

Algorithms and Programs	Data Retrieving and Organising	Communicating
<ul style="list-style-type: none"> • Can they explain how an algorithm works? • Can they detect errors in a program and correct them? • Can they use an ICT program to control a number of events for an external device? • Can they use ICT to measure sound, light or temperature using sensors and interpret the data? • Can they explore 'what if' questions by planning different scenarios for controlled devices? • Can they use input from sensors to trigger events? • Can they check and refine a series of instructions? 	<ul style="list-style-type: none"> • Can they explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)? • Can they add special effects to alter the appearance of a graphic? • Can they 'save as' gif or i peg. wherever possible to make the file size smaller (for emailing or downloading)? • Can they make an information poster using their graphics skills to good effect? 	<ul style="list-style-type: none"> • Can they conduct a video chat with people in another country or organisation?
Using the Internet	Databases	Presentation
<ul style="list-style-type: none"> • Can they contribute to discussions online? • Can they use a search engine using keyword searches? • Can they use complex searches using such as '+' 'OR' "Find the phrase in inverted commas"? 	<ul style="list-style-type: none"> • Can they collect live data using data logging equipment? • Can they identify data error, patterns and sequences? • Can they use the formulae bar to explore mathematical scenarios? • Can they create their own database and present information from it? 	<ul style="list-style-type: none"> • Can they present a film for a specific audience and then adapt same film for a different audience? • Can they create a sophisticated multimedia presentation? • Can they confidently choose the correct page set up option when creating a document? • Can they confidently use text formatting tools, including heading and body text? • Can they use the 'hanging indent' tool to help format work where appropriate (e.g. a play script)?

Year 6 (Challenging)

- Can they incorporate graphics where appropriate, using the most effective text wrapping formats?
- Can they conduct a video chat with more than one person at a time?
- Can they compare the information provided on two tabbed websites looking for bias and perspective?

E-safety in Years 5 and 6

Knowledge & understanding	Skills
<ul style="list-style-type: none"> • Can they discuss the positive and negative impact of the use of ICT in their own lives and those of their peers and family? • Do they understand the potential risk of providing personal information online? • Do they recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content? • Do they understand that some websites and/or pop-ups have commercial interests that may affect the way the information is presented? • Do they recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing)? • Do they understand that some material on the internet is copyrighted and may not be copied or downloaded? • Do they understand that some messages may be malicious and know how to deal with this? • Do they understand that online environments have security settings, which can be altered, to protect the user? • Do they understand the benefits of developing a 'nickname' for online use? • Do they understand that some malicious adults may use various techniques to make contact and elicit personal information? • Do they know that it is unsafe to arrange to meet unknown people online? • Do they know how to report any suspicions? • Do they understand they should not publish other people's pictures or tag them on the internet without permission? • Do they know that content put online is extremely difficult to remove? • Do they know what to do if they discover something malicious or inappropriate? 	<ul style="list-style-type: none"> • Do they follow the school's safer internet rules? • Can they make safe choices about use of technology? • Do they use technology in ways which minimises risk, e.g. responsible use of online discussions, etc? • Can they create strong passwords and manage them so that they remain strong? • Can they independently, and with regard for e-safety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school? • Can they competently use the internet as a search tool? • Can they reference information sources? • Can they use appropriate strategies for finding, critically evaluating, validating and verifying information, e.g. using different keywords, skim reading to check relevance of information, cross checking with different websites or other non ICT resources? • Can they use knowledge of the meaning of different domain names and common website extensions (e.g. .co.uk; .com; .ac; .sch; .org; .gov; .net) to support validation of information?

Schools will need to review and amend their approaches to e-safety in order to take on board and address changes to technology.

Weaving Art Knowledge, Skills and Understanding into the new National Curriculum

Key Stage 2:
Art



National Curriculum Requirements of Art at Key Stage 2

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

Pupils should be taught:

- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (e.g. pencil, charcoal, paint, clay)
- about the greatest artists, architects and designers in history.

Knowledge, Skills and Understanding breakdown for Art

Year 6

Drawing	Painting	Printing	Sketch books
<ul style="list-style-type: none"> • Do their sketches communicate emotions and a sense of self with accuracy and imagination? • Can they explain why they have combined different tools to create their drawings? • Can they explain why they have chosen specific drawing techniques? 	<ul style="list-style-type: none"> • Can they explain what their own style is? • Can they use a wide range of techniques in their work? • Can they explain why they have chosen specific painting techniques? 	<ul style="list-style-type: none"> • Can they overprint using different colours? • Do they look very carefully at the methods they use and make decisions about the effectiveness of their printing methods? 	<ul style="list-style-type: none"> • Do their sketch books contain detailed notes, and quotes explaining about items? • Do they compare their methods to those of others and keep notes in their sketch books? • Do they combine graphics and text based research of commercial design, for example magazines etc., to influence the layout of their sketch books. • Do they adapt and refine their work to reflect its meaning and purpose, keeping notes and annotations in their sketch books?
3D/ Textiles	Collage	Use of IT	Knowledge
<ul style="list-style-type: none"> • Can they create models on a range of scales? • Can they create work which is open to interpretation by the audience? • Can they include both visual and tactile elements in their work? 	<ul style="list-style-type: none"> • Can they justify the materials they have chosen? • Can they combine pattern, tone and shape? 	<ul style="list-style-type: none"> • Do they use software packages to create pieces of digital art to design. • Can they create a piece of art which can be used as part of a wider presentation? 	<ul style="list-style-type: none"> • Can they make a record about the styles and qualities in their work? • Can they say what their work is influenced by? • Can they include technical aspects in their work, e.g. architectural design?

Weaving Design and Technology Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
DT**



National Curriculum Requirements of DT at Key Stage 2

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

When designing and making, pupils should be taught to:

Design

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

Make

- select from and use a wider range of tools and equipment to perform practical tasks, such as 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 as 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 programme, monitor and control their products.

National Curriculum Requirements of Cooking and Nutrition at Key Stage 2

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

Pupils should be taught to:

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

Knowledge, Skills and Understanding breakdown for Design and Technology

Year 6

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
<ul style="list-style-type: none"> • Can they use a range of information to inform their design? • Can they use market research to inform plans? • Can they work within constraints? • Can they follow and refine their plan if necessary? • Can they justify their plan to someone else? • Do they consider culture and society in their designs? 	<ul style="list-style-type: none"> • Can they use tools and materials precisely? • Do they change the way they are working if needed? 	<ul style="list-style-type: none"> • How well do they test and evaluate their final product? • Is it fit for purpose? • What would improve it? • Would different resources have improved their product? • Would they need more or different information to make it even better? • Does their product meet all design criteria? • Did they consider the use of the product when selecting materials?

Breadth of study

<p>Cooking and nutrition</p> <ul style="list-style-type: none"> • Can they explain how their product should be stored with reasons? • Can they set out to grow their own products with a view to making a salad, taking account of time required to grow different foods? 	<p>Textiles</p> <ul style="list-style-type: none"> • Have they thought about how their product could be sold? • Have they given considered thought about what would improve their product even more? 	<p>Electrical and mechanical components</p> <ul style="list-style-type: none"> • Can they use different kinds of circuit in their product? • Can they think of ways in which adding a circuit would improve their product? 	<p>Stiff and flexible sheet materials</p> <ul style="list-style-type: none"> • Can they justify why they selected specific materials? • How have they ensured that their work is precise and accurate? • Can they hide joints so as to improve the look of their product? 	<p>Mouldable materials</p> <ul style="list-style-type: none"> • Can they justify why the chosen material was the best for the task? • Can they justify design in relation to the audience?
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Weaving Music Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
Music**



National Curriculum Requirements of Music at Key Stage 2

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

Pupils should be taught to:

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music 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 from different traditions and from great composers and musicians
- develop an understanding of the history of music.

Knowledge, Skills and Understanding breakdown for Music

Year 6

Performing	Composing (<i>incl notation</i>)	Appraising
<ul style="list-style-type: none"> • Can they sing a harmony part confidently and accurately? • Can they perform parts from memory? • Can they perform using notations? • Can they take the lead in a performance? • Can they take on a solo part? • Can they provide rhythmic support? 	<ul style="list-style-type: none"> • Can they use a variety of different musical devices in their composition? (<i>incl melody, rhythms and chords</i>) • Do they recognise that different forms of notation serve different purposes? • Can they use different forms of notation? • Can they combine groups of beats? 	<ul style="list-style-type: none"> • Can they refine and improve their work? • Can they evaluate how the venue, occasion and purpose affects the way a piece of music is created? • Can they analyse features within different pieces of music? • Can they compare and contrast the impact that different composers from different times will have had on the people of the time?

Year 6 (Challenging)

<ul style="list-style-type: none"> • Can they perform a piece of music which contains two (or more) distinct melodic or rhythmic parts, knowing how the parts will fit together? 	<ul style="list-style-type: none"> • Can they show how a small change of tempo can make a piece of music more effective? • Do they use the full range of chromatic pitches to build up chords, melodic lines and bass lines? 	<ul style="list-style-type: none"> • Can they appraise the introductions, interludes and endings for songs and compositions they have created?
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Weaving Dance Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
Dance**



National Curriculum Requirements of Dance at Key Stage 2

Pupils should be taught to:

- perform dances using a range of movement patterns

Knowledge, Skills and Understanding breakdown for Dance

Year 6

- Can they work creatively and imaginatively on their own and/or with a partner to compose motifs and structure simple dances?
- Can they perform to an accompaniment expressively and sensitively?
- Can they perform dances fluently and with control?
- Can they warm-up and cool-down independently?
- Do they understand how dance helps to keep them healthy?
- Do they use appropriate criteria to evaluate and refine their own and others' work?
- Do they talk about dance with understanding, using appropriate language and terminology?

Year 6 (Challenging)

- Can they interpret different stimuli with imagination and flair?
- Can they create, refine and structure movements and patterns with artistic understanding?
- Can they communicate the artistic intention of a dance clearly, fluently, musically and with control?
- Do they take the lead when working in a group?
- Can they help others to refine and structure movements and patterns?
- Do they understand why dancing is good for their health?
- Can they organise their own warm-up and cool-down activities to prepare for, and recover from, dance?
- Do they describe, interpret and evaluate dance, using appropriate language and terminology?

Weaving Languages Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 1 and 2:
Languages**



National Curriculum Requirements of Language at Key Stage 2 only

- 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.

Pupils should be taught to:

- listen attentively to spoken language and show understanding by joining in and responding
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words
- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help*
- speak in sentences, using familiar vocabulary, phrases and basic language structures
- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases*

National Curriculum Requirements of Language at Key Stage 2 only

Pupils should be taught to (continued):

- 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.

The starred (*) content above will not be applicable to ancient languages.

Knowledge, Skills and Understanding breakdown for Foreign Languages

Years 5 and 6

Listening and responding	Speaking	Reading and responding	Writing
<ul style="list-style-type: none"> • Do they understand longer passages made up of familiar language in simple sentences? • Can they identify the main points and some details? <p><i>Spoken at near normal speed with no interference. May need some items to be repeated.</i></p>	<ul style="list-style-type: none"> • Can they hold a simple conversation with at least 3-4 exchanges? • Can they use their knowledge of grammar to adapt and substitute single words and phrases? <p><i>Their pronunciation is generally accurate and they show some consistency in their intonation.</i></p>	<ul style="list-style-type: none"> • Can they understand a short story or factual text and note some of the main points? • Can they use context to work out unfamiliar words? 	<ul style="list-style-type: none"> • Can they write a paragraph of about 3-4 simple sentences? • Can they adapt and substitute individual words and set phrases? • Can they use a dictionary or glossary to check words they have learnt? <p><i>They will draw largely on memorised language.</i></p>

Knowledge, Skills and Understanding breakdown for Foreign Languages: Using the Languages Ladder

		Listening	Speaking	Reading	Writing
Early Stage	Grade 1	- Do they understand a few familiar spoken words and phrases?	- Can they say and repeat single words in short and simple phrases?	- Can they recognise and read out a few familiar words and phrases?	- Can they write or copy simple words or symbols correctly?
	Grade2	- Do they understand a range of familiar spoken phrases?	- Can they answer simple questions and give basic information?	- Can they understand and read out familiar written phrases?	- Can they write one or two short sentences to a model? - Can they fill in the words on a simple form?
	Grade3	- Do they understand the main points from a short spoken passage made up of familiar language?	- Can they ask and answer simple questions and talk about their interests?	- Can they understand the main points from a short written text in clear printed script?	- Can they write a few short sentences with support, using expressions which have already been learnt?
On completing the early stage		<i>Should be able to understand a basic range of everyday expressions relating to personal details and needs. May need to listen several times to get the information needed, depending how fast the speaker talks. Should have some understanding of a few simple grammatical structures and sentence patterns. Should be familiar with the sound system of the language. Should be aware how to address people both formally and informally as appropriate.</i>	<i>Should be able to use basic range of everyday expression relating to personal details and needs. Pronunciation may not always be completely accurate but meaning will be clear. Should be able to understand and use a few simple grammatical structures and sentence patterns. Should be familiar with the sound system of the language. Should be aware of how to address people both formally and informally as appropriate.</i>	<i>Should be able to understand a basic range of everyday expressions relating to personal details and needs. Should have some understanding of a few simple grammatical structures and sentence patterns. Should be familiar with the writing system of the language. Should be aware of how to address people both formally and informally as appropriate.</i>	<i>Should be able to use a basic range of everyday expressions relating to personal details and needs. Spelling may not always be completely accurate but meaning will be clear. Should be able to understand and use a few simple grammatical structures and sentence patterns. Should be familiar with the writing system of the language. Should be aware of how to address people both formally and informally as appropriate.</i>
Prelim Stage	Grade 4	- Do they understand the main points and some of the detail from a spoken passage made up of familiar language in simple sentences?	- Can they take part in a simple conversation and express their own opinions?	- Can they understand the main points and some detail from short written texts in familiar contexts?	- Can they write a short text on a familiar topic, adapting language which they have already learned?
	Grade 5	- Do they understand the main points and opinions in spoken passages made up of familiar material from various contexts?	- Can they give a short prepared talk, on a topic of their choice, including expressing their opinions?	- Can they understand the main points and opinions in written texts from various contexts?	- Can they write a short text on a range of familiar topic, using simple sentences?

Weaving PE Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 2:
PE**



National Curriculum Requirements of PE at Key Stage 2

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

Pupils should be taught to:

- use running, jumping, catching and throwing 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 gymnastics and athletics)
- perform dances using a range of movement patterns
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.

Swimming and water safety

All schools must provide swimming instruction either in Key Stage 1 or Key Stage 2.

In particular, pupils should be taught to:

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

Knowledge, Skills and Understanding breakdown for Physical Education

Year 6

Acquiring and developing skills	Evaluating and improving	Health and fitness	Dance (also covered in Dance section)
<ul style="list-style-type: none"> • Do they apply their skills, techniques and ideas consistently? • Do they show precision, control and fluency? 	<ul style="list-style-type: none"> • Can they analyse and explain why they have used specific skills or techniques? • Can they modify use of skills or techniques to improve their work? • Can they create their own success criteria for evaluating? 	<ul style="list-style-type: none"> • Can they explain how the body reacts to different kinds of exercise? • Can they choose appropriate warm ups and cool downs? • Can they explain why we need regular and safe exercise? 	<ul style="list-style-type: none"> • Can they develop imaginative dances in a specific style? • Can they choose their own music, style and dance?
Games	Gymnastics	Athletics	Outdoor/ adventurous
<ul style="list-style-type: none"> • Can they explain complicated rules? • Can they make a team plan and communicate it to others? • Can they lead others in a game situation? 	<ul style="list-style-type: none"> • Do they combine their own work with that of others? • Can they link their sequences to specific timings? 	<ul style="list-style-type: none"> • Can they demonstrate stamina? • Can they use their skills in different situations? 	<ul style="list-style-type: none"> • Can they plan a route and series of clues for someone else? • Can they plan with others taking account of safety and danger?

Knowledge, Skills and Understanding breakdown for Physical Education

Swimming

Lower attainers

- Can they swim between 25 and 50 metres unaided?
- Can they keep swimming for 30 to 45 seconds, using swimming aids and support?
- Can they use a variety of basic arm and leg actions when on their front and on their back?
- Can they swim on the surface and lower themselves under water?
- Can they take part in group problem-solving activities on personal survival?
- Do they recognise how their body reacts and feels when swimming?
- Can they recognise and concentrate on what they need to improve?

Mid attainers

- Can they swim between 50 and 100 metres and keep swimming for 45 to 90 seconds?
- Do they use 3 different strokes, swimming on their front and back?
- Can they control their breathing?
- Can they swim confidently and fluently on the surface and under water?
- Do they work well in groups to solve specific problems and challenges, sharing out the work fairly?
- Do they recognise how swimming affects their body, and pace their efforts to meet different challenges?
- Can they suggest activities and practices to help improve their own performance?

Higher attainers

- Can they swim further than 100 metres?
- Can they swim fluently and confidently for over 90 seconds?
- Do they use all 3 strokes with control?
- Can they swim short distances using butterfly?
- Do they breathe so that the pattern of their swimming is not interrupted?
- Can they perform a wide range of personal survival techniques confidently?
- Do they know what the different tasks demand of their body, and pace their efforts well to meet challenges?
- Can they describe good swimming technique and show and explain it to others?