

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

**Key Stage 1:
Science**



Knowledge, Skills and Understanding breakdown for Working Scientifically

Year 1

Observing closely	Performing Tests	Identifying and Classifying	Recording findings
<ul style="list-style-type: none"> • Can they talk about what they <see, touch, smell, hear or taste>? • Can they use simple equipment to help them make observations? 	<ul style="list-style-type: none"> • Can they perform a simple test? • Can they tell other people about what they have done? 	<ul style="list-style-type: none"> • Can they identify and classify things they observe? • Can they think of some questions to ask? • Can they answer some scientific questions? • Can they give a simple reason for their answers? • Can they explain what they have found out? 	<ul style="list-style-type: none"> • Can they show their work using pictures, labels and captions? • Can they record their findings using standard units? • Can they put some information in a chart or table?

Year 1 (Challenging)

<ul style="list-style-type: none"> • Can they find out by watching, listening, tasting, smelling and touching? 	<ul style="list-style-type: none"> • Can they give a simple reason for their answers? 	<ul style="list-style-type: none"> • Can they talk about similarities and differences? • Can they explain what they have found out using scientific vocabulary? 	<ul style="list-style-type: none"> • Can they use ICT to show their working? • Can they make accurate measurements?
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Knowledge, Skills and Understanding breakdown for Plants and Animals, including humans

Year 1

Plants	Animals, including humans	
<ul style="list-style-type: none"> • Can they name the petals, stem, leaf, bulb, flower, seed, stem and root of a plant? • Can they identify and name a range of common plants and trees? • Can they recognise deciduous and evergreen trees? • Can they name the trunk, branches and root of a tree? • Can they describe the parts of a plant (roots, stem, leaves, flowers)? 	<ul style="list-style-type: none"> • Can they point out some of the differences between different animals? • Can they sort photographs of living things and non-living things? • Can they identify and name a variety of common animals? (birds, fish, amphibians, reptiles, mammals, invertebrates) • Can they describe how an animal is suited to its environment? • Can they identify and name a variety of common animals that are carnivores, herbivores and omnivores? 	<ul style="list-style-type: none"> • Can they name the parts of the human body that they can see? • Can they draw & label basic parts of the human body? • Can they identify the main parts of the human body and link them to their senses? • Can they name the parts of an animal's body? • Can they name a range of domestic animals? • Can they classify animals by what they eat? (carnivore, herbivore, omnivore) • Can they compare the bodies of different animals?

Year 1 (Challenging)

<ul style="list-style-type: none"> • Can they name the main parts of a flowering plant? 	<ul style="list-style-type: none"> • Can they begin to classify animals according to a number of given criteria? • Can they point out differences between living things and non-living things? 	<ul style="list-style-type: none"> • Can they name some parts of the human body that cannot be seen? • Can they say why certain animals have certain characteristics? • Can they name a range of wild animals?
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Knowledge, Skills and Understanding breakdown for Everyday Materials

Year 1

Everyday materials (classifying and grouping)

- Can they distinguish between an object and the material from which it is made?
- Can they describe materials using their senses?
- Can they describe materials using their senses, using specific scientific words?
- Can they explain what material objects are made from?
- Can they explain why a material might be useful for a specific job?
- Can they name some different everyday materials? e.g. wood, plastic, metal, water and rock
- Can they sort materials into groups by a given criteria?
- Can they explain how solid shapes can be changed by squashing, bending, twisting and stretching?

Year 1 (Challenging)

- Can they describe things that are similar and different between materials?
- Can they explain what happens to certain materials when they are heated, e.g. bread, ice, chocolate?
- Can they explain what happens to certain materials when they are cooled, e.g. jelly, heated chocolate?

Knowledge, Skills and Understanding breakdown for Seasonal Changes

Year 1

Seasonal Changes

- Can they observe changes across the four seasons?
- Can they name the four seasons in order?
- Can they observe and describe weather associated with the seasons?
- Can they observe and describe how day length varies?

Year 1 (Challenging)

- Can they observe features in the environment and explain that these are related to a specific season?
- Can they observe and talk about changes in the weather?
- Can they talk about weather variation in different parts of the world?

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

**Key Stage 1:
History**



National Curriculum Requirements of History at Key Stage 1

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

Pupils should be taught about:

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

Knowledge, Skills and Understanding breakdown for History

Year 1

Chronological understanding

- Can they put up to three objects in chronological order (recent history)?
- Can they use words and phrases like: old, new and a long time ago?
- Can they tell me about things that happened when they were little?
- Can they recognise that a story that is read to them may have happened a long time ago?
- Do they know that some objects belonged to the past?
- Can they retell a familiar story set in the past?
- Can they explain how they have changed since they were born?

Knowledge and interpretation

- Do they appreciate that some famous people have helped our lives be better today?
- Do they recognise that we celebrate certain events, such as bonfire night, because of what happened many years ago?
- Do they understand that we have a queen who rules us and that Britain has had a king or queen for many years?
- Can they begin to identify the main differences between old and new objects?
- Can they identify objects from the past, such as vinyl records?

Historical enquiry

- Can they ask and answer questions about old and new objects?
- Can they spot old and new things in a picture?
- Can they answer questions using a artefact/ photograph provided?
- Can they give a plausible explanation about what an object was used for in the past?

Year 1 (Challenging)

- Can they put up to five objects/events in chronological order (recent history)?
- Can they use words and phrases like: very old, when mummy and daddy were little?
- Can they use the words before and after correctly?
- Can they say why they think a story was set in the past?

- Can they explain why certain objects were different in the past, e.g. iron, music systems, televisions?
- Can they tell us about an important historical event that happened in the past?
- Can they explain differences between past and present in their life and that of other children from a different time in history?
- Do they know who will succeed the queen and how the succession works?

- Can they answer questions using a range of artefacts/ photographs provided?
- Can they find out more about a famous person from the past and carry out some research on him or her?

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

**Key Stage 1:
Geography**



National Curriculum Requirements of Geography at Key Stage 1

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

Pupils should be taught to:

Location knowledge

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

Place knowledge

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

Human and physical geography

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

National Curriculum Requirements of Geography at Key Stage 1

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

Pupils should be taught to (continued):

Geographical skills and fieldwork

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

Knowledge, Skills and Understanding breakdown for Geography

Year 1

Geographical Enquiry	Physical Geography	Human Geography	Geographical Knowledge
<ul style="list-style-type: none"> • Can they say what they like about their locality? • Can they sort things they like and don't like? • Can they answer some questions using different resources, such as books, the internet and atlases? • Can they think of a few relevant questions to ask about a locality? • Can they answer questions about the weather? • Can they keep a weather chart? 	<ul style="list-style-type: none"> • Can they tell someone their address? • Can they explain the main features of a hot and cold place? • Can they describe a locality using words and pictures? • Can they explain how the weather changes with each season? • Can they name key features associated with a town or village, e.g. 'church', 'farm', 'shop', 'house'? 	<ul style="list-style-type: none"> • Can they begin to explain why they would wear different clothes at different times of the year? • Can they tell something about the people who live in hot and cold places? • Can they explain what they might wear if they lived in a very hot or a very cold place? 	<ul style="list-style-type: none"> • Can they identify the four countries making up the United Kingdom? • Can they name some of the main towns and cities in the United Kingdom? • Can they point out where the equator, north pole and south pole are on a globe or atlas?

Year 1 (Challenging)

<ul style="list-style-type: none"> • Can they answer questions using a weather chart? • Can they make plausible predictions about what the weather may be like later in the day or tomorrow? 	<ul style="list-style-type: none"> • Can they name key features associated with a town or village, e.g. 'factory', 'detached house', 'semi-detached house', 'terrace house'? 	<ul style="list-style-type: none"> • Can they name different jobs that people living in their area might do? 	<ul style="list-style-type: none"> • Can they name a few towns in the south and north of the UK?
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Weaving Computing Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 1:
Computing**



National Curriculum Requirements of Computing at Key Stage 1

Pupils should be taught to:

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

Knowledge, Skills and Understanding breakdown for Computing

Year 1

Algorithms and Programs	Data Retrieving and Organising	Communicating
<ul style="list-style-type: none"> • Can they create a simple series of instructions - left and right? • Can they record their routes? • Do they understand forwards, backwards, up and down? • Can they put two instructions together to control a programmable toy? • Can they begin to plan and test a Bee-bot journey? 	<ul style="list-style-type: none"> • Can they capture images with a camera? • Can they print out a photograph from a camera with help? • Can they record a sound and play it back? • Can they enter information into a template to make a graph? • Can they talk about the results shown on a graph? 	<ul style="list-style-type: none"> • Do they recognise what an email address looks like? • Have they joined in sending a class email? • Can they use the @ key and type an email address? • Can they word process ideas using a keyboard? • Can they use the spacebar, back space, enter, shift and arrow keys? • Can they print out a page from the internet?

Year 1 (Challenging)

- Can they record pupils' voices as a voice over?
- Can they use a teacher prepared photo story to create a slideshow of photos?

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

Key Stage 1:
Art



National Curriculum Requirements of Art & Design at Key Stage 1

Pupils should be taught:

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

Knowledge, Skills and Understanding breakdown for Art

Year 1

Drawing	Painting	Printing	Textiles
<ul style="list-style-type: none"> • Can they communicate something about themselves in their drawing? • Can they create moods in their drawings? • Can they draw using pencil and crayons? • Can they draw lines of different shapes and thickness, using 2 different grades of pencil? 	<ul style="list-style-type: none"> • Can they communicate something about themselves in their painting? • Can they create moods in their paintings? • Can they choose to use thick and thin brushes as appropriate? • Can they paint a picture of something they can see? • Can they name the primary and secondary colours? 	<ul style="list-style-type: none"> • Can they print with sponges, vegetables and fruit? • Can they print onto paper and textile? • Can they design their own printing block? • Can they create a repeating pattern? 	<ul style="list-style-type: none"> • Can they sort threads and fabrics? • Can they group fabrics and threads by colour and texture? • Can they weave with fabric and thread?
3D	Collage	Use of IT	Knowledge
<ul style="list-style-type: none"> • Can they add texture by using tools? • Can they make different kinds of shapes? • Can they cut, roll and coil materials such as clay, dough or plasticine? 	<ul style="list-style-type: none"> • Can they cut and tear paper and card for their collages? • Can they gather and sort the materials they will need? 	<ul style="list-style-type: none"> • Can they use a simple painting program to create a picture? • Can they use tools like fill and brushes in a painting package? • Can they go back and change their picture? 	<ul style="list-style-type: none"> • Can they describe what they can see and like in the work of another artist/craft maker/designer? • Can they ask sensible questions about a piece of art?

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

**Key Stage 1:
DT**



National Curriculum Requirements of DT at Key Stage 1

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

When designing and making, pupils should be taught to:

Design

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

Make

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

Evaluate

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

Technical knowledge

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

National Curriculum Requirements of Cooking and Nutrition at Key Stage 1

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:

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Knowledge, Skills and Understanding breakdown for Design and Technology

Year 1

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 think of some ideas of their own? • Can they explain what they want to do? • Can they use pictures and words to plan? 	<ul style="list-style-type: none"> • Can they explain what they are making? • Can they explain which tools are they using? 	<ul style="list-style-type: none"> • Can they describe how something works? • Can they talk about their own work and things that other people have done?

Breadth of study

<p>Cooking and nutrition</p> <ul style="list-style-type: none"> • Can they cut food safely? • Can they describe the texture of foods? • Do they wash their hands and make sure that surfaces are clean? • Can they think of interesting ways of decorating food they have made, eg, cakes? 	<p>Textiles</p> <ul style="list-style-type: none"> • Can they describe how different textiles feel? • Can they make a product from textiles by gluing? 	<p>Mechanisms</p> <ul style="list-style-type: none"> • Can they make a product which moves? • Can they cut materials using scissors? • Can they describe the materials using different words? • Can they say why they have chosen moving parts? 	<p>Use of materials</p> <ul style="list-style-type: none"> • Can they make a structure/model using different materials? • Is their work tidy? • Can they make their model stronger if it needs to be? 	<p>Construction</p> <ul style="list-style-type: none"> • Can they talk with others about how they want to construct their product? • Can they select appropriate resources and tools for their building projects? • Can they make simple plans before making objects, e.g. drawings, arranging pieces of construction before building?
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Weaving Music Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 1:
Music**



National Curriculum Requirements of Music at Key Stage 1

In music pupils should be taught to:

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

Knowledge, Skills and Understanding breakdown for Music

Year 1

Performing	Composing (<i>incl notation</i>)	Appraising
<ul style="list-style-type: none"> • Can they use their voice to speak/sing/chant? • Do they join in with singing? • Can they use instruments to perform? • Do they look at their audience when they are performing? • Can they clap short rhythmic patterns? • Can they copy sounds? 	<ul style="list-style-type: none"> • Can they make different sounds with their voice? • Can they make different sounds with instruments? • Can they identify changes in sounds? • Can they change the sound? • Can they repeat (short rhythmic and melodic) patterns? • Can they make a sequence of sounds? • Can they show sounds by using pictures? 	<ul style="list-style-type: none"> • Can they respond to different moods in music? • Can they say how a piece of music makes them feel? • Can they say whether they like or dislike a piece of music? • Can they choose sounds to represent different things? • Can they recognise repeated patterns? • Can they follow instructions about when to play or sing?

Year 1 (Challenging)

<ul style="list-style-type: none"> • Can they make loud and quiet sounds? • Do they know that the chorus keeps being repeated? 	<ul style="list-style-type: none"> • Can they tell the difference between long and short sounds? • Can they tell the difference between high and low sounds? • Can they give a reason for choosing an instrument? 	<ul style="list-style-type: none"> • Can they tell the difference between a fast and slow tempo? • Can they tell the difference between loud and quiet sounds? • Can they identify two types of sound happening at the same time?
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Weaving Dance Knowledge, Skills and Understanding into the new National Curriculum

**Key Stage 1:
Dance**



National Curriculum Requirements of Dance at Key Stage 1

Pupils should be taught to:

- perform dances using simple movement patterns

Knowledge, Skills and Understanding breakdown for Dance

Year 1

- Can they explore and perform basic body actions?;
- Do they use different parts of the body singly and in combination?;
- Do they show some sense of dynamic, expressive and rhythmic qualities in their own dance?;
- Do they choose appropriate movements for different dance ideas?;
- Can they remember and repeat short dance phrases and simple dances?;
- Do they move with control?;
- Do they vary the way they use space?;
- Do they describe how their lungs and heart work when dancing?;
- Do they describe basic body actions and simple expressive and dynamic qualities of movement?

Year 1 (Challenging)

- Can they perform more complicated combinations of movement fluently and with control?;
- Can they perform clearly and expressively?;
- Do they show an awareness of phrasing and music?;
- Can they choose movements that show a clear understanding of the dance idea?;
- Can they say why their heart beats faster and their temperature rises when dancing?;
- Do they talk about dance using a range of descriptive language?

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

Key Stage 1:
PE



National Curriculum Requirements of PE at Key Stage 1

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

Pupils should be taught to:

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

Knowledge, Skills and Understanding breakdown for Physical Education

Year 1

Acquiring and developing skills	Evaluating and improving	Health and fitness
<ul style="list-style-type: none"> • Can they copy actions? • Can they repeat actions and skills? • Can they move with control and care? 	<ul style="list-style-type: none"> • Can they talk about what they have done? • Can they describe what other people did? 	<ul style="list-style-type: none"> • Can they describe how their body feels before, during and after an activity?
Dance (also covered in Dance section)	Games	Gymnastics
<ul style="list-style-type: none"> • Can they move to music? • Can they copy dance moves? • Can they perform some dance moves? • Can they make up a short dance? • Can they move around the space safely? 	<ul style="list-style-type: none"> • Can they throw underarm? • Can they roll a piece of equipment? • Can they hit a ball with a bat? • Can they move and stop safely? • Can they catch with both hands? • Can they throw in different ways? • Can they kick in different ways? 	<ul style="list-style-type: none"> • Can they make their body tense, relaxed, curled and stretched? • Can they control their body when travelling? • Can they control their body when balancing? • Can they copy sequences and repeat them? • Can they roll in different ways? • Can they travel in different ways? • Can they balance in different ways? • Can they climb safely? • Can they stretch in different ways? • Can they curl in different ways?