

Science	Key Stage 1	Key Stage 2
Working Scientifically	Across all year groups scientific knowledge and skills should be learned by working scientifically.	
Biology	<p>Plants</p> <ul style="list-style-type: none"> • Identify, classify and describe their basic structure. • Observe and describe growth and conditions for growth. <p>Habitats</p> <ul style="list-style-type: none"> • Look at the suitability of environments and at food chains. <p>Animals and humans</p> <ul style="list-style-type: none"> • Identify, classify and observe. • Look at growth, basic needs, exercise, food and hygiene. <p>All living things*</p> <ul style="list-style-type: none"> • Investigate differences. 	<p>Plants</p> <ul style="list-style-type: none"> • Look at the function of parts of flowering plants, requirements of growth, water transportation in plants, life cycles and seed dispersal. <p>Evolution and inheritance</p> <ul style="list-style-type: none"> • Look at resemblance in offspring. • Look at changes in animals over time. • Look at adaptation to environments. • Look at differences in offspring. • Look at adaptation and evolution. • Look at changes to the human skeleton over time. <p>Animals and humans</p> <ul style="list-style-type: none"> • Look at nutrition, transportation of water and nutrients in the body, and the muscle and skeleton system of humans and animals. • Look at the digestive system in humans. • Look at teeth. • Look at the human circulatory system. <p>All living things</p> <ul style="list-style-type: none"> • Identify and name plants and animals • Look at classification keys. • Look at the life cycle of animals and plants. • Look at classification of plants, animals and micro-organisms. • Look at reproduction in plants and animals, and human growth and changes. • Look at the effect of diet, exercise and drugs.
Chemistry	<p>Materials</p> <ul style="list-style-type: none"> • Identify, name, describe, classify, compare properties and changes. • Look at the practical uses of everyday materials. 	<p>Rocks and fossils</p> <ul style="list-style-type: none"> • Compare and group rocks and describe the formation of fossils. <p>States of matter</p> <ul style="list-style-type: none"> • Look at solids, liquids and gases, changes of state,

		evaporation, condensation and the water cycle. Materials <ul style="list-style-type: none"> • Examine the properties of materials using various tests. • Look at solubility and recovering dissolved substances. • Separate mixtures. • Examine changes to materials that create new materials that are usually not reversible.
Physics	Light* <ul style="list-style-type: none"> • Look at sources and reflections. Sound* <ul style="list-style-type: none"> • Look at sources. Electricity* <ul style="list-style-type: none"> • Look at appliances and circuits. Forces <ul style="list-style-type: none"> • Describe basic movements. Earth and space <ul style="list-style-type: none"> • Observe seasonal changes. 	Light <ul style="list-style-type: none"> • Look at sources, seeing, reflections and shadows. • Explain how light appears to travel in straight lines and how this affects seeing and shadows. Sound <ul style="list-style-type: none"> • Look at sources, vibration, volume and pitch. Electricity <ul style="list-style-type: none"> • Look at appliances, circuits, lamps, switches, insulators and conductors. • Look at circuits, the effect of the voltage in cells and the resistance and conductivity of materials. Forces and magnets <ul style="list-style-type: none"> • Look at contact and distant forces, attraction and repulsion, comparing and grouping materials. • Look at poles, attraction and repulsion. • Look at the effect of gravity and drag forces. • Look at transference of forces in gears, pulleys, levers and springs. Earth and space <ul style="list-style-type: none"> • Look at the movement of the Earth and the Moon <ul style="list-style-type: none"> • Explain day and night
Note	* Items marked * are not statutory.	

Art and Design	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Use experiences and ideas as the inspiration for artwork. • Share ideas using drawing, painting and sculpture. • Explore a variety of techniques. • Learn about the work of a range of artists, artisans and designers. 	<ul style="list-style-type: none"> • Use experiences, other subjects across the curriculum and ideas as inspiration for artwork. • Develop and share ideas in a sketchbook and in finished products. • Improve mastery of techniques. • Learn about the great artists, architects and designers in history.

Computing	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions. • Write and test simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Organise, store, manipulate and retrieve data in a range of digital formats. • Communicate safely and respectfully online, keeping personal information private and recognise common uses of information technology beyond school. 	<ul style="list-style-type: none"> • Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs. • Use logical reasoning to explain how a simple algorithm works, 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. • Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital

	<p>content; respect individuals and intellectual property; use technology responsibly, securely and safely.</p> <ul style="list-style-type: none"> • Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
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Design and Technology	
Key Stage 1	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, such as the home and school, gardens and playgrounds, the local community, 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"> • 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. <p>Make</p>	<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, such as 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>

- select from and use a range of tools and equipment to perform practical tasks such as 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, such as levers, sliders, wheels and axles, in their products.

Cooking and nutrition

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

- 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, such as gears, pulleys, cams, levers and linkages.
- understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors.
- apply their understanding of computing to programme, monitor and control their products.

Cooking and nutrition

	<ul style="list-style-type: none"> • 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.
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Geography	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Investigate the world's continents and oceans. • Investigate the countries and capitals of the United Kingdom. • Compare and contrast a small area of the United Kingdom with that of a non-European country. • Explore weather and climate in the United Kingdom and around the world. • Use basic geographical vocabulary to refer to and describe key physical and human features of locations. • Use world maps, atlases and globes. • Use simple compass directions. • Use aerial photographs. • Use fieldwork and observational skills. 	<ul style="list-style-type: none"> • Locate the world's countries, with a focus on Europe and countries of particular interest to pupils. • Locate the world's countries, with focus on North and South America and countries of particular interest to pupils. • Identify key geographical features of the countries of the United Kingdom, and show an understanding of how some of these aspects have changed over time. • Locate the geographic zones of the world. • Understand the significance of the geographic zones of the world. • Understand geographical similarities and differences through the study of human and physical geography of a region or area of the United Kingdom (different from that taught at Key Stage 1).

	<ul style="list-style-type: none">• Understand geographical similarities and differences through the study of human and physical geography of a region or area in a European country.• Understand geographical similarities and differences through the study of the human and physical geography of a region or area within North or South America.• Describe and understand key aspects of:<ul style="list-style-type: none">• physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle• human geography, including: settlements, land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water supplies.• Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.• Use the eight points of a compass, four-figure grid references, symbols and keys (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the world.
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	<ul style="list-style-type: none"> • Use a wide range of geographical sources in order to investigate places and patterns. • 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.
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History	
Key Stage 1	Key Stage 2
<p>Look at:</p> <ul style="list-style-type: none"> • The lives of significant individuals in Britain's past who have contributed to our nation's achievements - scientists such as Isaac Newton or Michael Faraday, reformers such as Elizabeth Fry or William Wilberforce, medical pioneers such as William Harvey or Florence Nightingale, or creative geniuses such as Isambard Kingdom Brunel or Christina Rossetti. • Key events in the past that are significant nationally and globally, particularly those that coincide with festivals or other events that are commemorated throughout the year. • Significant historical events, people and places in their own locality. 	<ul style="list-style-type: none"> • Changes in Britain from the Stone Age to the Iron Age. • The Roman Empire and its Impact on Britain. • Britain's settlement by Anglo Saxons and Scots. • The Viking and Anglo Saxon struggle for the Kingdom of England. • A local history study. • A study of a theme in British history. • Early Civilizations achievements and an in-depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty.

	<ul style="list-style-type: none"> • Ancient Greece. • A non- European society that contrasts with British history <p>chosen from:</p> <ul style="list-style-type: none"> • Early Islamic Civilization • Mayan Civilization • Benin. <p>History of interest to pupils*</p> <p>* Items marked * are not statutory.</p>
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Languages	
Key Stage 1	Key Stage 2
<p>Although not compulsory in Key Stage 1 Nayland Primary School children:</p> <p>In the chosen modern language of French:</p> <ul style="list-style-type: none"> • Speak • Read 	<ul style="list-style-type: none"> • In the chosen modern language of French: <ul style="list-style-type: none"> • Speak • Read

<ul style="list-style-type: none"> • Look at the culture of the countries where the language is spoken. 	<ul style="list-style-type: none"> • Write • Look at the culture of the countries where the language is spoken. • If an ancient language is chosen, read, translate and explore the culture of the time.
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Physical Education	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Participate in team games, developing simple tactics for attacking and defending. • Perform dances using simple movement patterns. • Swimming and water safety: take swimming instruction either in Key Stage 1 or Key Stage 2. 	<ul style="list-style-type: none"> • Play competitive games, modified where appropriate, such as football, netball, rounders, cricket, hockey, basketball, badminton and tennis and apply basic principles suitable for attacking and defending. • Take part in gymnastics activities. • Take part in athletics activities. • Perform dances. • Take part in outdoor and adventurous activity challenges both individually and within a team. • Swimming and water safety: take swimming instruction either in Key Stage 1 or Key Stage 2.

Religious Education	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Study the main stories of Christianity. • Study at least one other religion. Choose from Buddhism, Hinduism, Islam, Judaism or Sikhism. • Study other religions of interest to pupils. 	<ul style="list-style-type: none"> • Study the beliefs, festivals and celebrations of Christianity. • Study at least two other religions in depth. Choose from Buddhism, Hinduism, Islam, Judaism or Sikhism. • Study three of the major six religions not studied in depth in order to gain a brief outline. • Study other religions of interest to pupils

Relationships, Sex and Health Education	
Key Stage 1	Key Stage 2
<ul style="list-style-type: none"> • Understand different families. • Explore friendships and feelings. • Keeping clean and taking care of myself. • Name body parts. 	<p>Lower Key Stage Two</p> <ul style="list-style-type: none"> • Explore families and getting on with our families. • What makes a good friend? • Discuss gender stereotypes. • Identify people who can help us online • Discuss my personal and private body parts and body care. <p>Upper Key Stage Two</p> <ul style="list-style-type: none"> • Explore friendships and secrets and peer pressure. • Discuss identity, prejudice, equality and the law.

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| | <ul style="list-style-type: none">• Identify online and offline friends.• Understand keeping ourselves safe online-
photographs.• Discuss safe and unsafe touch.• Explore changes at puberty. |
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