# Year 5 Term 1- Knowledge and Skills

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| Curriculum Intent | *Attain an appreciation for literature, art, music within the breadth of the National Curriculum.* |
| Power of Reading Text | The Viewer<br>The Rabbits |
| Cornerstones Unit | Time Traveller |
| Companion project | |

| | Knowledge | Skills |
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| Science | • Humans reproduce sexually, which involves two parents (one female and one male) and produces offspring that are different from the parents.<br>• Good personal hygiene (washing, wearing clean clothes and brushing teeth) can prevent disease or illness. Puberty is the period during which adolescents reach sexual maturity and become capable of reproduction. It causes physical and emotional changes.<br>• Good personal hygiene (washing, wearing clean clothes and brushing teeth) can prevent disease or illness. Puberty is the period during which adolescents reach sexual maturity and become capable of reproduction. It causes physical and emotional changes.<br>• The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered using evidence collected.<br>• A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.<br>• Humans go through characteristic stages as they develop towards old age. These stages include baby, infant, toddler, child, adolescent, young adult, adult and senior citizen. Puberty is the transition between childhood and adulthood. | • Describe the process of human reproduction.<br>• Explain why personal hygiene is important during puberty.<br>• Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.<br>• Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).<br>• Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.<br>• Describe the changes as humans develop from birth to old age. |
| Geography | • | • |
| History | • Aspects of history that can be compared and contrasted include rulers and monarchs, everyday life, homes and work, technology and innovation.<br>• Key aspects of British history include the rise, fall and actions of the monarchy; improvements in technology; exploration; disease; the lives of the rich and poor and changes in everyday life. | • Compare and contrast an aspect of history across two or more periods studied.<br>• Create an in-depth study of an aspect of British history beyond 1066. |
| Computing | • Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.<br>• Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.<br>• Sensing tools or apps have features that can be used for an investigation and the findings can be interpreted. For example, a sound sensor or app can be used to investigate the pitch of instruments.<br>• A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others.<br>• Some websites have more reliable content than others and content should be verified with another independent source. | • Create, select and combine a range of texts, images, sound clips and videos for given purposes.<br>• Apply computing skills to create content using unfamiliar programs or apps.<br>• Use sensing tools or apps for an investigation and interpret the findings.<br>• Select, use and combine appropriate technology to create a solution that will have an impact on others.<br>• Discern where web content might originate from and recognise that this gives clues to its authenticity, reliability and security. |
| Design and Technology | • Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques. | • Select and combine materials with precision. |
| Art and Design | • A portrait is a picture of a person that can be created through drawing, painting and photography. Artistic movements or artists that communicate feelings through portraiture include the Expressionists.<br>• Preliminary sketches and models are usually simple line drawings or trial pieces of sculpture that are created to explore ideas and techniques and plan what a final piece of art will look like.<br>• Ideas are the new thoughts and messages that artists have put into their work. Methods and approaches are the techniques used to create art.<br>• Visual elements include line, light, shape, colour, pattern, tone, space and form.<br>• Artistic movements include Expressionism, Realism, Pop Art, Renaissance and Abstract. | • Explore and create expression in portraiture.<br>• Produce creative work on a theme, developing ideas through a range of preliminary sketches or models.<br>• Compare and comment on the ideas, methods and approaches in their own and others' work.<br>• Describe and discuss how different artists and cultures have used a range of visual elements in their work.<br>• Investigate and develop artwork using the characteristics of an artistic movement. |

# Year 5 Term 2- Knowledge and Skills

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| Curriculum Intent | *Appreciate the benefits of diversity by understanding own and other's cultures and traditions.* |
| Power of Reading Text | Tales from the Caribbean<br>It's a No Money Day |
| Cornerstones Unit | Pharaohs |
| Companion project | - |

| | Knowledge | Skills |
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| Science | | |
| Geography | • Soil fertility, drainage and climate influence the placement and success of agricultural land.<br>• Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about a place, or places.<br>• Major cities around the world include London in the UK, New York in the USA, Shanghai in China, Istanbul in Turkey, Moscow in Russia, Manila in the Philippines, Lagos in Nigeria, Nairobi in Kenya, Baghdad in Iraq, Damascus in Syria and Mecca in Saudi Arabia.<br>• Settlements come in many different sizes and these can be ranked according to their population and the level of services available. A settlement hierarchy includes hamlet, village, town, city and large city. | • Describe how soil fertility, drainage and climate affect agricultural land use.<br>• Analyse and compare a place, or places, using aerial photographs. atlases and maps.<br>• Name, locate and describe major world cities.<br>• Describe how the characteristic of a settlement changes as it gets bigger (settlement hierarchy). |
| History | • The characteristics of ancient civilisations include cities, government, language, writing, customs, numerical systems, calendars, architecture, art, religion, inventions and social structures, all of which have influenced the world over the last 5000 years.<br>• Sources of historical information can have varying degrees of accuracy, depending on who wrote them, when they were written and the perspective of the writer.<br>• Using a range of historical sources and artefacts can reveal a clearer and more accurate picture about a historical event or person.<br>• Aspects of history that can be compared and contrasted include rulers and monarchs, everyday life, homes and work, technology and innovation.<br>• Aspects of history are significant because they had an impact on a vast number of people, are remembered and commemorated or influence the way we live today.<br>• Beliefs can prompt an individual to take action, such as to fight for change, fight wars, oppress or free individuals or groups of people, create temples and tombs or protest against injustice.<br>• Different world history civilisations existed before, after and alongside others. For example, the ancient Sumer existed from c4500 BC to c1900 BC and the ancient Egyptians from c3100 BC to 30 BC. | • Create an in-depth study of the characteristics and importance of a past or ancient civilisation or society (people, culture, art, politics, hierarchy).<br>• Explore the validity of a range of historical reports and use books, technology, and other sources to check accuracy.<br>• Use a range of historical sources or artefacts to build a picture of a historical event or person.<br>• Compare and contrast an aspect of history across two or more periods studied.<br>• Explain why an aspect of world history is significant.<br>• Explore and explain how the religious, political, scientific or personal beliefs of a significant individual caused them to behave in a particular way.<br>• Sequence and make connections between periods of world history on a timeline. |
| Computing | • Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.<br>• A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others. | • Create, select and combine a range of texts, images, sound clips and videos for given purposes.<br>• Select, use and combine appropriate technology to create a solution that will have an impact on others. |
| Design and Technology | • Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.<br>• There are many rules for using tools safely and these may vary depending on the tools being used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after use, and should not be used if they are loose or cracked.<br>• Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.<br>• Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.<br>• Seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower, due to reduced transport; it supports local growers and is usually cheaper. | • Explain how the design of a product has been influenced by the culture or society in which it was designed or made.<br>• Name and select increasingly appropriate tools for a task and use them safely.<br>• Select and combine materials with precision.<br>• Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.<br>• Describe what seasonality means and explain some of the reasons why it is beneficial. |
| Art and Design | • Preliminary sketches and models are usually simple line drawings or trial pieces of sculpture that are created to explore ideas and techniques and plan what a final piece of art will look like.<br>• Visual elements include line, light, shape, colour, pattern, tone, space and form. | • Produce creative work on a theme, developing ideas through a range of preliminary sketches or models.<br>• Describe and discuss how different artists and cultures have used a range of visual elements in their work. |

| Curriculum Intent | *Sustain and improve the environment, locally and globally.* |
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| Power of Reading Text | Overheard in a Tower Block |
| Cornerstones Unit | Scream Machine |
| Companion project | Properties and Changes of Materials |

| | Knowledge | Skills |
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| Science | • Very hot and very cold materials can burn skin. Heating materials should be done safely.<br>• Reversible changes include heating, cooling, melting, dissolving and evaporating. Irreversible changes include burning, rusting, decaying and chemical reactions.<br>• Gravity is a force of attraction. Anything with a mass can exert a gravitational pull on another object. The Earth's large mass exerts a gravitational pull on all objects on Earth, making dropped objects fall to the ground.<br>• Mechanisms, such as levers, pulleys and gears, give us a mechanical advantage. A mechanical advantage is a measurement of how much a simple machine multiplies the force that we put in. The bigger the mechanical advantage, the less force we need to apply.<br>• The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered using evidence collected.<br>• Data can be recorded and displayed in different ways, including tables, bar and line charts, classification keys and labelled diagrams.<br>• Questions can help us find out about the world and can be answered using a range of scientific enquiries.<br>• Specialised equipment is used to take measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and temperature (°C); timers (seconds, minutes and hours); thermometers (°C), and measuring tapes (millimetres, centimetres, metres).<br>• A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.<br>• An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time.<br>• Materials can be grouped according to their basic physical properties. Properties include hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism.<br>• Some materials (solutes) will dissolve in liquid (solvents) to form a solution. The solute can be recovered by evaporating off the solvent by heating.<br>• A material's properties dictate what it can be used for. For example, cooking pans are made from metal, which is a good thermal conductor, allowing heat to quickly transfer from the hob to the contents of the pan.<br>• Some mixtures can be separated by filtering, sieving and evaporating. Sieving can be used to separate large solids from liquids and some solids from other solids. Filtering can be used to separate small solids from liquids. Evaporating can be used to separate dissolved solids from liquids.<br>• Friction, air resistance and water resistance are forces that oppose motion and slow down moving objects. These forces can be useful, such as bike brakes and parachutes, but sometimes we need to minimise their effects, such as streamlining boats and planes to move through water or air more easily, and using lubricants and ball bearings between two surfaces to reduce friction. | • Explain the precautions needed for working safely when heating, burning, cooling and mixing materials.<br>• Identify, demonstrate and compare reversible and irreversible changes.<br>• Explain that objects fall to Earth due to the force of gravity.<br>• Describe and demonstrate how simple levers, gears and pulleys assist the movement of objects.<br>• Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.<br>• Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).<br>• Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them.<br>• Take increasingly accurate measurements in standard units, using a range of chosen equipment.<br>• Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.<br>• Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.<br>• Compare and group everyday materials by their properties, including hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism.<br>• Explain, following observation, that some substances (solutes) will dissolve in liquid (solvents) to form a solution and the solute can be recovered by evaporating off the solvent.<br>• Describe, using evidence from comparative or fair tests, why a material has been chosen for a specific use, including metals, wood and glass.<br>• Separate mixtures by filtering, sieving and evaporating.<br>• Compare and describe, using a range of toys, models and natural objects, the effects of water resistance, air resistance and friction. |
| Geography | • Transport networks can be tangible, such as rails, roads or canals, or intangible, such as air and sea corridors. These networks link places together and allow for the movement of people and goods. Transport networks are usually built where there is a high demand for the movement of people or goods. They run between places where journeys start or finish, such as airports, bus stations, ferry terminals or railway stations.<br>• Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about a place, or places.<br>• The seven continents (Africa, Antarctica, Asia, Australia, Europe, North America and South America) vary in size, shape, location, population and climate. | • Describe and explain the location, purpose and use of transport networks across the UK and other parts of the world.<br>• Analyse and compare a place, or places, using aerial photographs. atlases and maps.<br>• Identify and describe the similarities and differences in physical and human geography between continents. |
| History | • | • |
| Computing | • Digital content can affect others and be available to anyone. Digital content is traceable, which means it can be tracked to the person who created it. To stay safe, it is important to discuss technology use with a trusted adult.<br>• Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.<br>• Sequences of instructions (algorithms) that contain IF, THEN and OTHERWISE statements are called selections. The computer will complete operations based on whether the conditions of these selections are met or not.<br>• Using prior knowledge and experience of computing skills can be applied to unfamiliar hardware to solve a problem successfully.<br>• Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.<br>• Online collaborative projects can be shared with different permission settings, such as who can view, edit or comment on the documents. Privacy settings can be restricted to those who are invited, those who have access to the link or can be made open to the public.<br>• A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others.<br>• Some websites have more reliable content than others and content should be verified with another independent source. | • Discuss the impact that digital content can have and why it is important to discuss their use of technology with an adult.<br>• Create, select and combine a range of texts, images, sound clips and videos for given purposes.<br>• Design, write and debug simple sequences of instructions (algorithms), including IF, THEN and OTHERWISE commands, to decide if something is true or false.<br>• Apply computing skills using unfamiliar hardware to solve a problem successfully.<br>• Apply computing skills to create content using unfamiliar programs or apps.<br>• Create an online collaborative project for a specific purpose, sharing documents and appropriately setting permissions for other group members.<br>• Select, use and combine appropriate technology to create a solution that will have an impact on others.<br>• Discern where web content might originate from and recognise that this gives clues to its authenticity, reliability and security. |

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| Design and Technology | • Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.<br>• Safety features are often incorporated into products that might cause harm. Some examples include the child-safety caps on medicine bottles, seatbelts in cars, covers for electrical sockets and finger guards on doors.<br>• Pneumatic systems use energy that is stored in compressed air to do work, such as inflating a balloon to open a model monster's mouth. These effects can be achieved using syringes and plastic tubing.<br>• A pattern piece is a drawing or shape used to guide how to make something. There are many different computer-aided design packages for designing products.<br>• Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts. Frameworks can be built using lolly sticks, skewers and bamboo canes.<br>• Equipment and devices can be controlled by pressing buttons on a control panel, such as on a washing machine or microwave.<br>• There are many rules for using tools safely and these may vary depending on the tools being used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after use, and should not be used if they are loose or cracked.<br>• Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.<br>• Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.<br>• Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one. | • Explain how the design of a product has been influenced by th culture or society in which it was designed or made.<br>• Explain the functionality and purpose of safety features on a range of products.<br>• Use mechanical systems in their products, such as pneumatics<br>• Use pattern pieces and computer-aided design packages to design a product.<br>• Build a framework using a range of materials to support mechanisms.<br>• Link a physical device to a computer or tablet so that it can be controlled (such as changing motor speed or turning an LED on and off) by a program.<br>• Name and select increasingly appropriate tools for a task and use them safely.<br>• Test and evaluate products against a detailed design specification and make adaptations as they develop the product.<br>• Select and combine materials with precision.<br>• Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish. |
| Art and Design | • A portrait is a picture of a person that can be created through drawing, painting and photography. Artistic movements or artists that communicate feelings through portraiture include the Expressionists. | • Explore and create expression in portraiture. |

| Curriculum Intent | *Attain an appreciation for literature, art, music within the breadth of the National Curriculum.* | |
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| Power of Reading Text | Floodland | |
| Cornerstones Unit | Sow, Grow and Farm | |
| Companion project | | |
| | **Knowledge** | **Skills** |
| Science | • The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered using evidence collected.<br>• Data can be recorded and displayed in different ways, including tables, bar and line charts, classification keys and labelled diagrams.<br>• A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.<br>• An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time.<br>• Flowering plants reproduce sexually. The flower is essential for sexual reproduction. Other plants reproduce asexually. Bulbs, corms and rhizomes are some parts used in asexual reproduction in plants.<br>• Parts of a flower include the stamen, filament, anther, pollen, carpel, stigma, style, ovary, ovule and sepal. Pollination is when the male part of a plant (pollen) is carried, by wind, insects or other animals, to the female part of the plant (carpel). The pollen travels to the ovary, where it fertilises the ovules (eggs). Seeds are then produced, which disperse far away from the parent plant and grow new plants.<br>• Population changes in a habitat can have significant consequences for food chains and webs.<br>• Reproduction is the process of producing offspring and is essential for the continued survival of a species. There are two types of reproduction: sexual and asexual. Sexual reproduction involves two parents (one female and one male) and produces offspring that are different from the parents. Asexual reproduction involves one parent and produces offspring that is identical to the parent.<br>• Farming in the UK can be divided into three main types: arable (growing crops), pastoral (raising livestock), mixed (arable and pastoral). Intensive farming in the past has resulted in the loss of habitats.<br>• A life cycle is the series of changes in the life of a living thing and includes these basic stages: birth, growth, reproduction and death. Mammals' life cycles include the stages: embryo, juvenile, adolescent and adult. Amphibians' life cycles include the stages: egg, larva (tadpole), adolescent and adult. Some insects' (butterflies, beetles and bees) life cycles include the stages: egg, larva, pupa and adult. Birds' life cycles include the stages: egg, baby, adolescent and adult. | • Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.<br>• Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).<br>• Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.<br>• Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.<br>• Group and sort plants by how they reproduce.<br>• Label and draw the parts of a flower involved in sexual reproduction in plants (stamen, filament, anther, pollen, carpel, stigma, style, ovary, ovule and sepal).<br>• Describe, using their knowledge of food chains and webs, what could happen if a habitat had a living thing removed or introduced.<br>• Describe the life process of reproduction in some plants and animals.<br>• Research and describe different farming practices in the UK and how these can have positive and negative effects on natural habitats.<br>• Compare the life cycles of animals, including a mammal, an amphibian, an insect and a bird. |
| Geography | • Transport networks can be tangible, such as rails, roads or canals, or intangible, such as air and sea corridors. These networks link places together and allow for the movement of people and goods. Transport networks are usually built where there is a high demand for the movement of people or goods. They run between places where journeys start or finish, such as airports, bus stations, ferry terminals or railway stations.<br>• Agricultural land use in the UK can be divided into three main types, arable (growing crops), pastoral (livestock) and mixed (arable and pastoral). An allotment is a small piece of land used to grow fruit, vegetables and flowers. A wide variety of crops are farmed in the UK, such as wheat, barley, oats, potatoes, other vegetables, fruits and oilseed rape. A wide variety of livestock are reared on farms in the UK, such as sheep, dairy cattle, beef cattle, poultry and pigs.<br>• Changes to the weather and climate (temperature, weather patterns and precipitation) can affect land use. Farmers living in different countries adapt their farming practices to suit their local climate and landscape.<br>• Soil fertility, drainage and climate influence the placement and success of agricultural land.<br>• Geographical data, such as demographics or economic statistics, can be used as evidence to support conclusions.<br>• A geographical enquiry can help us to understand the physical geography (rivers, coasts, weather and rocks) or human geography (population changes, migration, land use, changes to inner city, urbanisation, developments and tourism) of an area and the impacts on the surrounding environment.<br>• The topography of an area intended for agricultural purposes is an important consideration. In particular, the topographical slope or gradient plays a large part in controlling hydrology (water) and potential soil erosion.<br>• North America is broadly categorised into six major biomes: tundra, coniferous forest, grasslands (prairie), deciduous forest, desert and tropical rainforest. South America has a vast variety of biomes, including desert, alpine, rainforest and grasslands<br>• The Earth has five climate zones: desert, Mediterranean, polar, temperate and tropical. Mountains have variable climates depending on altitude. A biome is a large ecological area on the Earth's surface, such as desert, forest, grassland, tundra and aquatic. Biomes are often defined by a range of factors, such as temperature, climate, relief, geology, soils and vegetation.<br>• Relative location is where something is found in comparison with other features.<br>• Compass points can be used to describe the relationship of features to each other, or to describe the direction of travel. Accurate grid references identify the position of key physical and human features.<br>• The seven continents (Africa, Antarctica, Asia, Australia, Europe, North | • Describe and explain the location, purpose and use of transport networks across the UK and other parts of the world.<br>• Describe in detail the different types of agricultural land use in the UK.<br>• Explain how the climate affects land use.<br>• Describe how soil fertility, drainage and climate affect agricultural land use.<br>• Summarise geographical data to draw conclusions.<br>• Construct or carry out a geographical enquiry by gathering and analysing a range of sources.<br>• Explain how the topography and soil type affect the location of different agricultural regions.<br>• Identify and describe some key physical features and environmental regions of North and South America and explain how these, along with the climate zones and soil types, can affect land use.<br>• Name and locate the world's biomes, climate zones and vegetation belts and explain their common characteristics.<br>• Describe the relative location of cities, counties or geographical features in the UK in relation to other places or geographical features.<br>• Use compass points, grid references and scale to interpret maps, including Ordnance Survey maps, with accuracy.<br>• Identify and describe the similarities and differences in physical and human geography between continents.<br>• Identify some of the problems of farming in a developing country and report on ways in which these can be supported. |

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| | America and South America) vary in size, shape, location, population and climate.<br>• Farming challenges for developing countries include poor soil, disease, drought and lack of markets. Education, fair trade and technology are ways in which these challenges can be reduced. | |
| History | • Historical terms include topic related vocabulary, which may include abstract nouns, such as peasantry, civilisation, treason, empire, rebellion and revolt. | • Articulate and organise important information and detailed historical accounts using topic related vocabulary. |
| Computing | • | • |
| Design and Technology | • Seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower, due to reduced transport; it supports local growers and is usually cheaper. | • Describe what seasonality means and explain some of the reasons why it is beneficial. |
| Art and Design | • Preliminary sketches and models are usually simple line drawings or trial pieces of sculpture that are created to explore ideas and techniques and plan what a final piece of art will look like.<br>• A tint is a colour mixed with white, which increases lightness, and a shade is a colour mixed with black, which increases darkness. | • Produce creative work on a theme, developing ideas through a range of preliminary sketches or models.<br>• Mix and use tints and shades of colours using a range of different materials, including paint. |

# Year 5 Term 5 - Knowledge and Skills

| Curriculum Intent | *Appreciate the benefits of diversity by understanding own and other's cultures and traditions.* |
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| Power of Reading Text | Goodnight Mister Tom |
| Cornerstones Unit | Fallen Fields |
| Companion project | |

| | Knowledge | Skills |
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| Science | • | |
| Geography | • Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about a place, or places. | • Analyse and compare a place, or places, using aerial photographs. atlases and maps. |
| History | • Aspects of history are significant because they had an impact on a vast number of people, are remembered and commemorated or influence the way we live today.<br>• Beliefs can prompt an individual to take action, such as to fight for change, fight wars, oppress or free individuals or groups of people, create temples and tombs or protest against injustice.<br>• Key aspects of British history include the rise, fall and actions of the monarchy; improvements in technology; exploration; disease; the lives of the rich and poor and changes in everyday life. | • Create an in-depth study of an aspect of British history beyond 1066. |
| Computing | • Online collaborative projects can be shared with different permission settings, such as who can view, edit or comment on the documents. Privacy settings can be restricted to those who are invited, those who have access to the link or can be made open to the public.<br>• Some websites have more reliable content than others and content should be verified with another independent source. | • Create an online collaborative project for a specific purpose, sharing documents and appropriately setting permissions for other group members.<br>• Discern where web content might originate from and recognise that this gives clues to its authenticity, reliability and security. |
| Design and Technology | • Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques. | • Select and combine materials with precision. |
| Art and Design | • Ways to review and revisit ideas include annotating sketches and sketchbook pages, practising and refining techniques and making models or prototypes of the finished piece. | • Review and revisit ideas and sketches to improve and develop ideas. |

# Year 5 Term 6 - Knowledge and Skills

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| Curriculum Intent | *Challenge injustice and strive to live peacefully with others.* |
| Power of Reading Text | Pig Heart Boy |
| Cornerstones Unit | Stargazers |
| Companion project | |

| | Knowledge | Skills |
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| Science | • As Earth orbits the Sun, it also spins on its axis. It takes Earth a day (24 hours) to complete a full spin. During the day, the Sun appears to move through the sky. However, this is due to the Earth rotating and not the Sun moving. Earth rotates to the east or, if viewed from above the North Pole, it rotates anti-clockwise, which means the Sun rises in the east and sets in the west. As Earth rotates, different parts of it face the Sun, which brings what we call daytime. The part facing away is in shadow, which is night time.<br>• The Solar System is made up of the Sun and everything that orbits around it. There are eight planets in our Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Earth orbits around the Sun and a year (365 days) is the length of time it takes for Earth to comp<br>• The Moon orbits Earth, completing a full orbit every month (28 days).<br>• The Sun, Earth, Moon and the planets in our solar system are roughly spherical. All planets are spherical because their mass is so large that they have their own force of gravity. This force of gravity pulls all of a planet's material towards its centre, which compresses it into the most compact shape – a sphere.<br>• Gravity is a force of attraction. Anything with a mass can exert a gravitational pull on another object. The Earth's large mass exerts a gravitational pull on all objects on Earth, making dropped objects fall to the ground.<br>• The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered using evidence collected.<br>• Data can be recorded and displayed in different ways, including tables, bar and line charts, classification keys and labelled diagrams.<br>• Specialised equipment is used to take measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and temperature (°C); timers (seconds, minutes and hours); thermometers (°C), and measuring tapes (millimetres, centimetres, metres).<br>• A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.<br>• A material's properties dictate what it can be used for. For example, cooking pans are made from metal, which is a good thermal conductor, allowing heat to quickly transfer from the hob to the contents of the pan.<br>• Some mixtures can be separated by filtering, sieving and evaporating. Sieving can be used to separate large solids from liquids and some solids from other solids. Filtering can be used to separate small solids from liquids. Evaporating can be used to separate dissolved solids from liquids. | • Use the idea of Earth's rotation to explain day and night, and the Sun's apparent movement across the sky.<br>• Describe or model the movement of the planets in our Solar System, including Earth, relative to the Sun.<br>• Describe or model the movement of the Moon relative to Earth.<br>• Describe the Sun, Earth and Moon as approximately spherical bodies and use this knowledge to understand the phases of the Moon and eclipses.<br>• Explain that objects fall to Earth due to the force of gravity.<br>• Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.<br>• Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).<br>• Take increasingly accurate measurements in standard units, using a range of chosen equipment.<br>• Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.<br>• Describe, using evidence from comparative or fair tests, why a material has been chosen for a specific use, including metals, wood and glass.<br>• Separate mixtures by filtering, sieving and evaporating. |
| Geography | • Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about a place, or places. | • |
| History | • Sources of historical information can have varying degrees of accuracy, depending on who wrote them, when they were written and the perspective of the writer. | • Explore the validity of a range of historical reports and use books, technology and other sources to check accuracy.<br>• Explain why an aspect of world history is significant.<br>• Explore and explain how the religious, political, scientific or personal beliefs of a significant individual caused them to behave in a particular way. |
| Computing | • Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.<br>• Sequences of instructions (algorithms) that contain IF, THEN and OTHERWISE statements are called selections. The computer will complete operations based on whether the conditions of these selections are met or not.<br>• Using prior knowledge and experience of computing skills can be applied to unfamiliar hardware to solve a problem successfully.<br>• A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others. | • Create, select and combine a range of texts, images, sound clips and videos for given purposes.<br>• Design, write and debug simple sequences of instructions (algorithms), including IF, THEN and OTHERWISE commands, to decide if something is true or false.<br>• Apply computing skills using unfamiliar hardware to solve a problem successfully.<br>• Select, use and combine appropriate technology to create a solution that will have an impact on others. |
| Design and Technology | • Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.<br>• Safety features are often incorporated into products that might cause harm. Some examples include the child-safety caps on medicine bottles, seatbelts in cars, covers for electrical sockets and finger guards on doors.<br>• A pattern piece is a drawing or shape used to guide how to make something. There are many different computer-aided design packages for designing products.<br>• There are many rules for using tools safely and these may vary depending on the tools being used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after use, and should not be used if they are loose or cracked.<br>• Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.<br>• Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques. | • Explain how the design of a product has been influenced by the culture or society in which it was designed or made.<br>• Explain the functionality and purpose of safety features on a range of products.<br>• Use pattern pieces and computer-aided design packages to design a product.<br>• Name and select increasingly appropriate tools for a task and use them safely.<br>• Test and evaluate products against a detailed design specification and make adaptations as they develop the product.<br>• Select and combine materials with precision. |
| Art and Design | • Preliminary sketches and models are usually simple line drawings or trial pieces of sculpture that are created to explore ideas and techniques and plan what a final piece of art will look like.<br>• Some artists use text or printed images to add interest or meaning to a photograph. | • Produce creative work on a theme, developing ideas through a range of preliminary sketches or models.<br>• Add text or printed materials to a photographic background. |