

	Science	Art, Design & Technology	History	Geography
Programme of Study	<p>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p>	<p>Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay).</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>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.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p>	<p>Gain historical perspective by placing their growing knowledge into different contexts: understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.</p>	<p>Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.</p> <p>Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.</p>

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Year 6 Learning Intention (skills)	<p>Classify living things, including microorganisms, animals and plants, into groups according to common observable characteristics and based on similarities and differences</p> <p>Choose an appropriate approach to recording accurate results, including scientific diagrams, labels, timelines, classification keys, tables, models and graphs (bar, line and scatter), linking to mathematical knowledge.</p> <p>Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding.</p> <p>Ask and answer deeper and broader scientific questions about the local and wider world that build on and extend their own and others' experiences and knowledge.</p> <p>Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment.</p> <p>Report on and validate their findings, answer questions and justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe.</p> <p>Independently 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.</p>	<p>Use distortion, abstraction and exaggeration to create interesting effects in portraiture or figure drawing.</p> <p>Choose the best materials for a task, showing an understanding of their working characteristics.</p> <p>Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.</p> <p>Combine the qualities of different materials including paper, fabric and print techniques to create textural effects.</p>	<p>Examine the decisions made by significant historical individuals, considering their options and making a summative judgement about their choices.</p>	<p>Use grid references, lines of latitude and longitude, contour lines and symbols in maps and on globes to understand and record the geography of an area.</p> <p>Use lines of longitude and latitude or grid references to find the position of different geographical areas and features.</p>

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Year 6 Knowledge	<p>Scientists classify living organisms into broad groups according to their characteristics. Vertebrates are an example of a classification group. There are a number of ranks, or levels, within the biological classification system. The first rank is called a kingdom, the second a phylum, then class, order, family, genus and species.</p> <p>Data can be recorded and displayed in different ways, including tables, bar and line charts, scatter graphs, classification keys and labelled diagrams</p> <p>A method is a set of clear instructions for how to carry out a scientific investigation, including what equipment to use and observations to make. A variable is something that can be changed during a fair test. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.</p> <p>Questions can help us find out about the world and can be answered using a range of scientific enquiries, including fair tests, research and observation.</p> <p>Specialised equipment is used to take accurate 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).</p> <p>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 correct, precise terminology and collected evidence.</p> <p>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, identify processes and make comparisons.</p>	<p>In art, distortion is an alteration to an original shape, abstraction refers to art that doesn't depict the world realistically and exaggeration is the depiction of something that is larger than in real life</p> <p>It is important to understand the characteristics of different materials to select the most appropriate material for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.</p> <p>Design criteria should cover the intended use of the product, age range targeted and final appearance. Ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Materials have different qualities, such as rough or smooth, hard or soft, heavy or light, opaque or transparent and fragile or robust. These different qualities can be used to add texture to a piece of artwork.</p>	<p>Decisions can be made for a variety of reasons, including belief, lack of options, cultural influences and personal gain. Decisions are influenced by the cultural context of the day, which may be different to the cultural context today, and should be taken into account when making a judgement about the actions of historical individuals.</p>	<p>A geographical area can be understood by using grid references and lines of latitude and longitude to identify position, contour lines to identify height above sea level and map symbols to identify physical and human features.</p> <p>Invisible lines of latitude run horizontally around the Earth and show the northerly or southerly position of a geographical area. Invisible lines of longitude run vertically from the North to the South Pole and show the westerly or easterly position of a geographical area.</p>

