





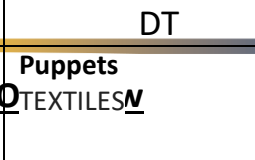

## WCPS Art and DT Overview



02The design technology curriculum is organized around six key areas (Structures; Mechanisms; Textiles; Electrical systems; Digital world; and Cooking and nutrition) and four key strands (Design, Make, Evaluate, and Technical Knowledge)

Knowledge and skills in the Art curriculum are developed by:

- Generating ideas and using sketchbooks: taking inspiration from a range of artists
- Making: developing drawing, painting, printmaking, photography, mixed media, craft techniques and sculpture skills
- Formal elements: exploring colour, form, line, pattern, shape, texture and tone
- Knowledge of artists: discovering artists' work and techniques
- Evaluation: critiquing their own work and that of others

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	 <p><b>Art</b> Exploring line and shape DRAWING</p>	 <p><b>DT</b> Making a moving story book MECHANISMS</p>	<p><b>Art</b> Paper Play SCULPTURE AND 3D</p>	 <p><b>DT</b> Puppets TEXTILES M</p>	<p><b>Art</b> Colour Splash PAINTING AND MIXED MEDIA</p>	 <p><b>DT</b> Make a fruit smoothie COOKING AND NUTRITION BY ST</p>
	<p>Exploring line and shape; working and experimenting with different materials through observational and collaborative pieces inspired by artists.</p>	<p>Explore slider mechanisms and the movement they output to design, make and evaluate a moving storybook from a range of templates.</p>	<p>Creating simple three-dimensional shapes and structures using familiar materials, children develop skills in manipulating paper and card. They fold, roll and scrunch materials to make their own sculptures.</p>	<p>Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.</p>	<p>Exploring colour mixing through paint play, using a range of tools to paint on different surfaces and creating paintings inspired by Clarice Cliff and Jasper Johns.</p>	<p>Cutting and juicing fruits and vegetables to create a smoothie that meets a design brief, this unit gives the children opportunities to develop food preparation skills with an increased focus on taste testing and ingredient choices.</p>
	<p><b>Key skills:</b> Exploring drawing different lines by varying control and pressure, e.g. straight, wavy, zig zags, broken, lighter, darker etc. (Line, Pattern)</p> <p>Identifying known shapes (in different sizes and orientations*) in objects, scenes or images they wish to draw. (Shape, Line)</p> <p>Recognising that applying more pressure when drawing or</p>	<p><b>Key skills:</b> Explore slider mechanisms. Explain how to adapt mechanisms, using bridges or guides to control the movement. Follow a design to create moving models that use levers and sliders. Testing a finished product.</p>	<p><b>Key skills:</b> Develop some control when using a wide range of tools to draw, paint and create crafts and sculptures. Explore and analyse a wider variety of ways to join and fix materials in place.</p>	<p><b>Key skills:</b> Use a template to create a design for a puppet. Cut fabric neatly with scissors. Using joining methods to decorate a puppet. Reflecting on a finished product, explaining likes and dislikes.</p>	<p><b>Key skills:</b> Develop some control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials to use to create an effect.</p>	<p><b>Key skills:</b> Design a smoothie carton packaging by hand. Chopping fruit and vegetables safely. Juicing fruits. Tasting and evaluating different foods. Suggesting information to be included on packaging.</p>



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	<p>colouring, gives a darker tone. (Tone)</p> <p>Creating an area with a single, consistent tone when colouring/shading. (Tone)</p>					
	<p><b>Key Knowledge:</b> Know a range of 2D shapes and confidently draw these. Know that drawing tools can be used in a variety of ways to create different lines. Know lines can create patterns like zig zags and wavy lines. Texture: Know different drawing tools make different marks.</p> <p>Changing pressure when drawing can create light and dark tones.</p>	<p><b>Key knowledge:</b> A mechanism is the parts of an object that move together. A slider mechanism moves an object from side to side or up and down. A slider mechanism has a slider, slots, guides and an object. Bridges and guides are bits of card that purposefully restrict the movement of the slider.</p>	<p><b>Key Knowledge:</b> Form: Know paper can change from 2D to 3D by folding, rolling and scrunching it. Know that 3D art is called sculpture. Know paper can be shaped by cutting and folding it.</p>	<p><b>Key knowledge</b> To know that 'joining technique' means connecting two pieces of material together. To know that there are various temporary methods of joining fabric by using staples, glue or pins. To understand that a template (or fabric pattern) is used to cut out the same shape multiple times.</p>	<p><b>Key knowledge:</b> Know that the primary colours are red, yellow and blue. Know primary colours can be mixed to make secondary colours: – Red + yellow = orange – Yellow + blue = green – Blue + red = purple Know a pattern is a design in which shapes, colours or lines are repeated. Know that there are many different shades (or 'hues') of the same colour.</p>	<p><b>Key knowledge:</b> That a blender is a machine which mixes ingredients together into a smooth liquid. That a fruit has seeds and a vegetable does not. That vegetables can grow either above or below ground.</p>



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Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	Art	DT	Art	DT	Art	DT
	<b>Understanding tone and texture</b> DRAWING	<b>Fairground wheel</b> MECHANISMS	<b>Life by colour</b> PAINTING AND MIXED MEDIA	<b>Baby bear's chair</b> STRUCTURES	<b>Clay Houses</b> SCULPTURE AND 3D	<b>Balanced Diet</b> COOKING AND NUTRITION
	Exploring how artists use tone and texture, and applying these techniques in observational drawings.	Building a rotating fairground wheel with a free-standing structure, this unit offers a simplified wheel design made from repurposed materials and an additional lesson where children design and conduct a survey to gather opinions.	Developing colour mixing skills, learning about the work of artist Romare Bearden and creating textured papers using paint, children compose collages inspired by their exploration of colour and texture in the world around them.	Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.	Exploring the way clay can be shaped and joined, children learn a range of essential skills for working with this medium. They learn about the sculpture of Rachel Whiteread and create their own clay house tile in response.	Learning about the importance of a balanced diet and using that knowledge to create a tasty wrap, this unit includes new lessons with both teacher and pupil videos.
	<b>Key skills:</b> Demonstrating increased control with a greater range of media. Making choices about which materials and techniques to use to create an effect.  Developing observational skills to look closely and aim to reflect some of the	<b>Key skills:</b> Conducting simple surveys or discussions to gather opinions. Knowing that a survey is used to find out what people like. Using a simple design brief that outlines the intended use, target user, and key features of the product, to	<b>Key skills:</b> Further demonstrate increased control with a greater range of media. Make choices about which materials and techniques to use to create an effect. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials.	<b>Key skills:</b> Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.  Generating and communicating ideas	<b>Key skills:</b> Further demonstrate increased control with a greater range of media. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials.	<b>Key skills:</b> Learning about the importance of a balanced diet and using that knowledge to create a tasty wrap. Chopping foods safely. Grating foods to make a wrap. Identifying the five food groups.



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	<p>formal elements of art (colour, pattern, texture, line, shape, form and space) in their work.</p>	<p>create simple design criteria. Knowing that a design brief helps to decide what to make. Knowing that design criteria are the steps for making a product successful. Creating ideas with design criteria in mind.</p>	<p>Develop observational skills.</p>	<p>using sketching and modelling. Making a structure according to design criteria. Creating joints and structures from paper/card and tape. Building a strong and stiff structure by folding paper. Evaluating the strength, stiffness and stability of their own structure.</p>		<p>Tasting and evaluating different food combinations.</p>
	<p><b>Key knowledge:</b> To understand that patterns what can be made using shapes. To know that lines be used to fill shapes, to make outlines and to add detail, pattern and texture. To make different marks can be used to represent the textures of objects. Texture: Drawing techniques, such as hatching, scribbling, stippling and blending can create surface texture.</p>	<p><b>Key knowledge:</b> Everyday objects have mechanisms. Many things that move have parts inside to help them work. Mechanisms usually limit unwanted movement. Everyday objects utilise wheels and axles. Wheels must be able to turn to work effectively.</p>	<p><b>Key knowledge:</b> Different amounts of paint and water can be used to mix hues of secondary colours. Colours can be mixed to 'match' real life objects or to create things from your imagination. That 'composition' means how things are arranged on the page. Drawing techniques such as hatching, scribbling, stippling, and blending can create surface texture. Painting tools can create varied textures in paint.</p>	<p><b>Key knowledge:</b> To know that shapes and structures with wide, flat bases or legs are the most stable. To understand that the shape of a structure affects its strength. To know that materials can be manipulated to improve strength and stiffness. To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p>	<p><b>Key knowledge:</b> Pieces of clay can be joined using the 'scratch and slip' technique. A clay surface can be decorated by pressing into it or by joining pieces on. Patterns can be made using shapes.</p>	<p><b>Key knowledge:</b> That 'diet' means the food and drink that a person or animal usually eats. What makes a balanced diet. That the five main food groups are: carbohydrates, fruits and vegetables, protein, dairy and oils and spreads. That I should eat a range of different foods from each food group, and roughly how much of each food group.</p>



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Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Art	DT	Art	DT	Art	DT
	<b>Painting and Mixed Media</b> Pre-historic Painting	<b>Pneumatic toys</b> MECHANICAL SYSTEMS	<b>Developing drawing skills</b> DRAWING	<b>Digital world: wearable technology</b> ELECTRICAL SYSTEMS	<b>Abstract shape and space</b> SCULPTURE AND 3D	<b>Build a Roman fort</b> (based on planning for Castles) <b>Cooking with seasonal foods from polytunnel</b> (see below)
	Explores prehistoric art, recreating the style of cave artists using charcoal and natural pigments.	Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams.	Developing shading skills and drawing techniques to create botanical-inspired digital drawings.	Designing digital wearable technology and developing a program and housing for a Micro:bit.	Exploring how shapes and negative spaces can be represented by three dimensional forms. Manipulating a range of materials, children learn ways to join and create free-standing structures inspired by the work of Anthony Caro.	Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure).
	<b>Key skills:</b> Develop direct observation, for example by using tonal shading and starting to apply an understanding of shape to communicate form and proportion. Confidently use a range of materials and tools, selecting and using these appropriately	<b>Key skills:</b> Selecting equipment required for a series of tasks based on the plan. Explain why each piece is suitable for each stage. Suggesting simple safety rules based on their understanding of tool dangers.	<b>Key skills:</b> Generating ideas from a range of stimuli and carrying out simple research and evaluation as part of the making process. Using sketchbooks for a wider range of purposes, for example recording things using drawing and annotations, planning	<b>Key skills:</b> Problem solving by suggesting potential features on a micro:bit and justifying my ideas. Drawing and manipulating 2D shapes, using computer-aided design. Developing design ideas through annotated sketches to	<b>Key skills:</b> Confidently use of a range of materials and tools, selecting and using these appropriately with more independence. Use hands and tools confidently to cut, shape and join materials for a purpose. Substantive knowledge: Colour: Using light and	<b>Key skills:</b> Designing a castle with key features to appeal to a specific person/purpose. Drawing and labelling a castle design using 2D shapes. Constructing a range of 3D geometric shapes using nets. Creating special features for individual designs.



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	<p>with more independence.</p>	<p>Cutting out more complex shapes accurately.          Making facades from a range of materials.          Creating different textural effects with a variety of materials.</p>	<p>and taking next steps in a making process.          Confidently using a range of materials and tools, selecting and using these appropriately with more independence.          Developing direct observation, for example by using tonal shading and starting to apply an understanding of shape to communicate form.          Confidently explaining their ideas and opinions about their own and others' artwork, with an understanding of the breadth of what art can be and that there are many ways to make art.</p>	<p>create a product concept.          Developing design criteria to respond to a design brief.          Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.</p>	<p>dark colours next to each other creates contrast.          Form: Three dimensional forms are either organic (natural) or geometric (mathematical shapes, like a cube).          Form: Organic forms can be abstract.          Shape: Negative shapes show the space around and between objects.          Shape: Artists can focus on shapes when making abstract art.</p>	<p>Making facades from a range of recycled materials.          Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.</p> <p><b>Cooking with seasonal foods from polytunnel COOKING AND NUTRITION</b></p> <p><b>Key skills:</b>          Describing how climate affects where foods grow.          Identifying seasonal ingredients from the UK.          Tasting seasonal ingredients.          Peeling foods by hand or with a peeler.          Cutting ingredients safely.          Following the instructions within a recipe.          Describing the benefits of seasonal fruits and vegetables and their</p>
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						impact on the environment. in a given country.
	<p><b>Key knowledge:</b> To know that paint colours can be mixed using natural substances, and that prehistoric peoples used these paints. To use different tools or using the same tool in different ways can create different types of lines.</p>	<p><b>Key knowledge:</b> How mechanisms work. A mechanical system can allow us to move something more easily. Mechanical systems can have more than one mechanism that moves to make them work. Mechanical systems are often hidden in products to make them look more appealing. Pneumatic systems can be found in everyday objects. Pivots can be used to create more movement in a mechanical system.</p>	<p><b>Key knowledge:</b> 3D forms are either organic (natural) or geometric (mathematical shapes, like a cube). Using different tools or using the same tool in different ways can create different types of lines. Surface rubbings can be used to add or make patterns. Texture in an artwork can be real (what the surface actually feels like) or a surface can be made to appear textured. That 'tone' in art means 'light and dark'. Shading helps make drawn objects look realistic. Some basic rules for shading when drawing, eg shade in one direction, blending tones smoothly and with no gaps. Shading is used to create different tones in an</p>	<p><b>Key knowledge:</b> To know that CAD stands for 'Computer-aided design'. To know what the 'Digital revolution' is and features of some of the products that have evolved as a result. To know that a micro:bit is a pocket-sized, codeable computer. To understand that, in programming, a 'loop' is code that repeats something again and again until stopped.</p>	<p><b>Key knowledge:</b> Using light and dark colours next to each other creates contrast. Three dimensional forms are either organic (natural) or geometric (mathematical shapes, like a cube). Organic forms can be abstract. Negative shapes show the space around and between objects. Artists can focus on shapes when making abstract art.</p>	<p><b>Key knowledge:</b> To understand that wide and flat based objects are more stable. To understand the importance of strength and stiffness in structures. To know that a façade is the front of a structure. To understand that a castle/fort needed to be strong and stable to withstand/ enemy attack.</p> <p><b>Cooking with seasonal foods from polytunnel</b> COOKING AND NUTRITION</p> <p><b>Key knowledge:</b> Some seasonal foods that grow in the UK and what season they grow in. That eating seasonal foods can have a positive impact on the environment.</p>



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BELONGING**



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EXCELLENCE**



**DO THE  
RIGHT THING**

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			artwork and can include hatching, cross-hatching, scribbling and stippling.			How to cut and peel safely. That similar coloured fruits and vegetables often have similar nutritional benefits.
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Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	Art	DT	Art	DT	Art	DT
	<b>Exploring tone, texture and proportion</b> DRAWING	<b>Mindful Moments timer</b> DIGITAL WORLD	<b>Light and dark</b> PAINTING AND MIXED MEDIA	<b>Fastenings</b> TEXTILES <b>Adapting a recipe (see below)</b> COOKING AND NUTRITION	<b>Fabric of nature</b> CRAFT AND DESIGN	<b>Mechanical car</b> MECHANICAL SYSTEMS
	Exploring tone, texture and proportion to create realistic drawings.	Exploring the concept of mindfulness and writing design criteria to develop a programmed product for timing a mindful moment, this unit includes new teacher and pupil videos, with an increased focus on evaluation and the use of a virtual Micro:bit.	Developing skills in colour mixing, focusing on using tints and shades to create a 3D effect. Experimenting with composition and applying painting techniques to a personal still life piece.	Create fastenings of different designs. Design and create a book sleeve using any stitch they are comfortable with.	Using the flora and fauna of tropical rainforests as a starting point, children develop drawings through experimentation and textile-based techniques to design a repeating pattern suitable for fabric.	Making and designing mechanical cars that use different methods of movement or creating and developing a car with a working slingshot mechanism.
	<b>Key skills:</b> Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	<b>Key skills:</b> Writing design criteria for a programmed timer (micro:bit). Applying the results of research to further inform my design criteria.	<b>Key skills:</b> Demonstrate greater skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects.	<b>Key skills:</b> Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve.	<b>Key skills:</b> Demonstrate greater skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects.	<b>Key skills:</b> Following detailed safety instructions. Using a ruler as a measuring tool with increasing accuracy by creating spaced marks using millimetres and



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<p>Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.</p> <p>Demonstrating greater skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D forms.</p> <p>Using growing knowledge of different materials, combining media for effect.</p> <p>Applying observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style.</p> <p>Using subject vocabulary confidently to describe and compare creative works.</p> <p>Using more complex vocabulary when discussing their own and others' art.</p> <p>Evaluating their work more regularly and</p>	<p>Developing a prototype case for a mindful moment timer.</p> <p>Using and manipulating shapes and clipart by using computer-aided design (CAD), to produce a logo.</p> <p>Programming a micro:bit in the Microsoft micro:bit editor, to time a set number of seconds/minutes upon button press.</p> <p>Evaluating a program against points on a design criteria and amending them to include any changes made.</p>	<p>Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style.</p>	<p>Making and testing a paper template with accuracy and in keeping with the design criteria.</p> <p>Measuring, marking and cutting fabric using a paper template.</p> <p>Selecting a stitch style to join fabric.</p> <p>Sewing neatly using small regular stitches.</p> <p>Incorporating a fastening to a design.</p> <p>Testing and evaluating an end product against the original design criteria.</p> <p><b>Adapting a recipe</b> COOKING AND NUTRITION</p> <p>Adapting an existing biscuit recipe while considering the cost of ingredients and other expenses against a set budget, this unit includes new lessons with teacher and pupil videos to develop the children's food</p>	<p>Use growing knowledge of different materials, combining media for effect.</p> <p>Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style.</p>	<p>measuring lengths of objects.</p> <p>Handle different sizes and types of scissors with confidence.</p> <p>With close supervision, using a hot glue gun to join wooden materials (e.g. lolly sticks).</p> <p>Selecting equipment required for a series of tasks based on the plan and explaining why each piece is suitable for each stage.</p>
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	<p>independently during the planning and making process.</p>			<p>preparation skills and adapt a recipe to suit a target audience.</p> <p><b>Key skills:</b> Evaluating and comparing a range of products. Following a baking recipe. Understanding safety and hygiene rules. Designing a biscuit within a given budget. Adapting a recipe. Conducting market research.</p>		
	<p><b>Key Knowledge:</b> Using lighter and darker tints and shades of a colour can create a 3D effect. How to use basic shapes to form more complex shapes and patterns. Lines can be lighter or darker, or thicker or thinner and that this can add expression or movement to a drawing. How to use texture more purposely to achieve a specific effect</p>	<p><b>Key knowledge:</b> Understanding what a logo is and why they are important in the world of design and business. To understand what variables are in programming. To know some of the features of a micro:bit. To know that an algorithm is a set of instructions to be followed by the computer.</p>	<p><b>Key knowledge:</b> Adding black to a colour creates a shade. Adding white to a colour creates a tint. Form: Using lighter and darker tints and shades of a colour can create a 3D effect. Using lighter and darker tints and shades of a colour can create a 3D effect. Tone can be used to create contrast in an artwork.</p>	<p><b>Key knowledge:</b> To know that a fastening is something that holds two pieces of material together. To know that different fastening types are useful for different purposes. To know that creating a mock-up (prototype) of their design is useful for checking ideas and proportions.</p> <p><b>Adapting a recipe</b></p>	<p><b>Key knowledge:</b> How to use basic shapes to form more complex shapes and patterns. Patterns can be irregular and change in ways you wouldn't expect. The starting point for a repeating pattern is called a motif, and a motif can be arranged in different ways to make varied patterns. How to use texture more purposely to achieve a specific effect or to</p>	<p><b>Key knowledge:</b> Different tools and equipment have different dangers. A ruler can be used to measure length. Scissors are useful for cutting out complex shapes. A hot glue gun can be used to join materials.</p>



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	<p>or to replicate different surfaces. That using lighter and darker tints and shades of a colour can create a 3D effect. Tone can be used to create contrast in an artwork.</p>	<p>To know that it is important to check code for errors (bugs). To know that a simulator can be used as a way of checking code works before installing it onto an electronic device. To understand the terms 'ergonomic' and 'aesthetic'.  To know that a prototype is a 3D model made out of cheap materials, that allows us to test design ideas and make better decisions about size, shape and materials.</p>		<p>COOKING AND NUTRITION</p> <p><b>Key knowledge:</b> That the amount of an ingredient in a recipe is known as the 'quantity'. That safety and hygiene are important when cooking. The following cooking techniques: sieving, measuring, mixing/stirring, cutting out and shaping. The importance of budgeting while planning ingredients for a recipe. That products often have a target audience.</p>	<p>replicate a natural surface. Using lighter and darker tints and shades of a colour can create a 3D effect.</p>	
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Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Art	DT	Art	DT	Art	DT
	<b>Interactive installation</b> SCULPTURE AND 3D	<b>Bridges</b> STRUCTURES	<b>Depth, emotion and movement</b> DRAWING	<b>Doodlers</b> ELECTRICAL SYSTEMS	<b>Portraits</b> PAINTING AND MIXED MEDIA	<b>Eco bike – Option 1</b> MECHANICAL SYSTEMS
	Learning about the features of installation art and how it can communicate a message; exploring the work of Cai Guo-Qiang and discovering how our life experiences can inspire our art; investigating how scale, location and interactive elements affect the way visitors experience installation art.	Test and analyse various types of bridge to determine their strength and stability. Explore material properties and sources, before marking, sawing and assembling a wooden truss bridge.	Exploring mark making for showing depth, emotion and movement.	Exploring series circuits and introducing motors by investigating an existing motorised product, this unit encourages the pupils to problem-solve and understand a product's construction before developing their own.	Investigating self-portraits by a range of artists, children use photographs of themselves as a starting point for developing their own unique self-portraits in mixed-media.	Designing an eco-bike with gears and pulleys to harness the energy from an exercise bike.
	<b>Key skills:</b> Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists.	<b>Key skills:</b> Designing a stable structure that is able to support weight. Creating a frame structure with focus on triangulation. Making a range of different shaped beam bridges.	<b>Key skills:</b> Developing ideas more independently from their own research. Exploring and recording their plans, ideas and evaluations to develop their ideas towards an outcome.	<b>Key skills:</b> Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. Developing design criteria based on findings from	<b>Key skills:</b> Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists. Combine a wider range of media, e.g.	<b>Key skills:</b> Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. Consistently apply safety instructions.



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		<p>Using triangles to create truss bridges that span a given distance and support a load.</p> <p>Building a wooden bridge structure.</p> <p>Independently measuring and marking wood accurately.</p> <p>Selecting appropriate tools and equipment for particular tasks.</p> <p>Using the correct techniques to saw safely.</p> <p>Identifying where a structure needs reinforcement and using card corners for support.</p> <p>Explaining why selecting appropriate materials is an important part of the design process.</p> <p>Understanding basic wood functional properties.</p> <p>Adapting and improving own bridge structure by</p>	<p>Confidently using sketchbooks for purposes including recording observations and research, testing materials and working towards an outcome more independently.</p> <p>Working with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists.</p> <p>Creating in a more sustained way, revisiting artwork over time and applying their understanding of tone, texture, line, colour and form.</p> <p>Researching and discussing the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.</p>	<p>investigating existing products.</p> <p>Developing design criteria that clarifies the target user.</p> <p>Altering a product's form and function by tinkering with its configuration.</p> <p>Making a functional series circuit, incorporating a motor.</p> <p>Constructing a product with consideration for the design criteria.</p> <p>Breaking down the construction process into steps so that others can make the product.</p> <p>Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses.</p>	<p>photography and digital art effects.</p> <p>Create in a more sustained way, revisiting artwork over time and applying their understanding of tone, texture, line, colour and form.</p>	<p>Select appropriate scissors to handle delicate cutting tasks and challenging materials.</p> <p><b>Seasonal Recipes</b> COOKING AND NUTRITION</p> <p>Use food from polytunnel to cook food for horticultural Show.</p> <p><b>Key skills:</b> Researching existing recipes. Suggesting alternative ingredients. Analysing nutritional content. Writing an alternative recipe. Using preparation skills. Designing a jar label. Making a developed recipe.</p>
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		<p>identifying points of weakness and reinforcing them as necessary. Suggesting points for improvements for own bridges and those designed by others.</p>	<p>Discussing how artists create work with the intent to create an impact on the viewer. Considering what choices can be made in their own work to impact their viewer. Discussing the processes used by themselves and by other artists and describing the particular outcome achieved. Considering how effectively pieces of art express emotion and encourage the viewer to question their own ideas. Using their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.</p>			
	<p><b>Key knowledge:</b> An art installation is often a room or environment in which the viewer</p>	<p><b>Key knowledge:</b> To understand some different ways to reinforce structures.</p>	<p><b>Key knowledge:</b> Shapes can be used to place the key elements in a composition.</p>	<p><b>Key knowledge:</b> To know that, in a series circuit, electricity only flows in one direction.</p>	<p><b>Key knowledge:</b> Artists use colour to create an atmosphere or to represent feelings in an artwork,</p>	<p><b>Key knowledge:</b> Mechanical systems that use gears in everyday objects (e.g. bicycle, clock, etc.).</p>



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	<p>'experiences' the art all around them.</p> <p>Form: The size and scale of three-dimensional artwork change the effect of the piece.</p>	<p>To understand how triangles can be used to reinforce bridges.</p> <p>To know that properties are words that describe the form and function of materials.</p> <p>To understand why material selection is important based on their properties.</p> <p>To understand the material (functional and aesthetic) properties of wood.</p>	<p>Lines can be used by artists to control what the viewer looks at within a composition, eg by using diagonal lines to draw your eye into the centre of a drawing.</p> <p>Artists create pattern to add expressive detail to art works, for example Chila Kumari Singh Burman using small everyday objects to add detail to sculptures.</p> <p>How to create texture on different materials.</p>	<p>To know when there is a break in a series circuit, all components turn off.</p> <p>To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin.</p> <p>To know a motorised product is one which uses a motor to function.</p>	<p>for example by using warm or cool colours.</p> <p>Artists create pattern to add expressive detail to art works, for example Chila Kumari Singh Burman using small everyday objects to add detail to sculptures.</p> <p>Tone can help show the foreground and background in an artwork.</p>	<p>Gears and pulleys allow us to transfer movement and force from one part of a mechanical system to another.</p> <p>Gears allow us to increase the output of a mechanism.</p> <p>Market research is a way of collecting information about problems or needs.</p> <p>Constraints are things that might stop our ideas from being successful.</p> <p><b>Seasonal Recipes</b> COOKING AND NUTRITION</p> <p>Use food from polytunnel to cook food for horticultural Show.</p> <p><b>Key knowledge:</b> That recipes can be adapted to suit nutritional needs and dietary requirements.</p>
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## WCPS Art and DT Overview



							That nutritional information is found on food packaging. That food packaging serves many purposes.
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## WCPS Art and DT Overview



Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	Art	DT	Art	DT	Art	DT
	<b>Expressing ideas</b> DRAWING	<b>Navigating the world</b> DIGITAL WORLD	<b>Photo opportunity</b> CRAFT AND DESIGN	<b>Playgrounds</b> STRUCTURES	<b>Making memories</b> SCULPTURE AND 3D	<b>Costumes</b> TEXTILES
	Exploring how artists express ideas and how they use scale to do so.	Design and program a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch and explain the product to a guest panel.	Developing photography skills and techniques to design a range of creative photographic outcomes.	Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.	Creating a personal memory box using a collection of found objects and hand-sculptured forms, reflecting primary school life with symbolic and personal meaning.	Using a combination of textiles skills such as attaching fastenings, appliqué and decorative stitches, children design, assemble and decorate a costume for the Year 6 performance.
	<b>Key skills:</b> Drawing upon their experience of creative work and their research to develop their own starting points for creative outcomes. Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks. Creating expressively in their own personal style and in response to their choice of	<b>Key skills:</b> Writing a design brief from information submitted by a client. Developing design criteria to fulfil the client's request. Developing a product idea through annotated sketches. Placing and manoeuvring 3D objects, using CAD. Changing the properties of, or combine one or more 3D objects, using CAD.	<b>Key skills:</b> Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently.	<b>Key skills:</b> Designing a playground featuring a variety of different structures, giving consideration to how the structures will be used. Considering effective and ineffective designs. Building a range of play apparatus structures drawing upon new and prior knowledge of structures.	<b>Key skills:</b> Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently. Combine materials and techniques appropriate to fit with ideas. Work in a sustained way over several sessions to complete a piece, including working	<b>Key skills:</b> Designing a costume in accordance with a specification and design criteria to fit a specific theme. Annotating designs. Using a template when pinning panels onto fabric. Marking and cutting fabric accurately, in accordance with a design. Sewing a strong running stitch, making small, neat stitches



## WCPS Art and DT Overview



	<p>stimulus, showing the ability to develop artwork independently.</p> <p>Combining materials and techniques appropriately to fit with ideas.</p> <p>Working in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.</p> <p>Describing, interpreting and evaluating the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work.</p> <p>Giving reasoned evaluations of their own and others' work which takes account</p>	<p>Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo).</p> <p>Explaining material choices and why they were chosen as part of a product concept.</p> <p>Programming an N,E, S,W cardinal compass.</p>		<p>Measuring, marking and cutting wood to create a range of structures.</p> <p>Using a range of materials to reinforce and add decoration to structures.</p> <p>Improving a design plan based on peer evaluation.</p> <p>Testing and adapting a design to improve it as it is developed.</p> <p>Identifying what makes a successful structure.</p>	<p>collaboratively on a larger scale and incorporating the formal elements of art.</p>	<p>and following the edge.</p> <p>Tying strong knots.</p> <p>Decorating a costume – attaching objects using thread and adding a secure fastening.</p> <p>Learning different decorative stitches.</p>
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## WCPS Art and DT Overview



	<p>of context and intention.</p> <p>Discussing how art is sometimes used to communicate social, political, or environmental views.</p> <p>Explaining how art can be created to cause reaction and impact and being able to consider why an artist chooses to use art in this way.</p> <p>Independently using their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work.</p>					
	<p><b>Key knowledge:</b> Explore the expressive qualities of line as part of their iterative process. Consider the desired line quality in their artwork and thoughtfully choose materials and techniques to best achieve this effect.</p>	<p><b>Key knowledge:</b> To know that accelerometers can detect movement. To understand that sensors can be useful in products as they mean the product can function without human input. To know that designers write design</p>	<p><b>Key knowledge:</b> Colours can be symbolic and have meanings that vary according to your culture or background, eg red for danger or for celebration. How an understanding of shape and space can support creating effective composition.</p>	<p><b>Key knowledge:</b> To know that structures can be strengthened by manipulating materials and shapes. To understand what a 'footprint plan' is. To understand that in the real world, design can impact users in</p>	<p><b>Key knowledge:</b> Colours can be symbolic and have meanings that vary according to your culture or background, eg red for danger or for celebration. The surface textures created by different materials can help</p>	<p><b>Key knowledge:</b> To understand that it is important to design clothing with the client/target customer in mind. To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.</p>



**BUILD  
BELONGING**



**STRIVE FOR  
EXCELLENCE**



**DO THE  
RIGHT THING**

## WCPS Art and DT Overview



	<p>Further develop shading techniques by creatively selecting and combining tools and techniques to align with their artistic intentions.</p> <p>Find a point in the distance to draw from (one-point perspective).</p> <p>Scale drawings up or down while aiming to keep proportion.</p>	<p>briefs and develop design criteria to enable them to fulfil a client's request.</p> <p>To know that 'multifunctional' means an object or product has more than one function.</p> <p>To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.</p>	<p>How line is used beyond drawing and can be applied to other art forms.</p> <p>Pattern can be created in many different ways, eg in the rhythm of brushstrokes in a painting (like the work of van Gogh) or in repeated shapes within a composition.</p>	<p>positive and negative ways.</p> <p>To know that a prototype is a cheap model to test a design idea.</p>	<p>suggest form in two-dimensional art work.</p> <p>How an understanding of shape and space can support creating effective composition.</p> <p>How line is used beyond drawing and can be applied to other art forms.</p> <p>Pattern can be created in many different ways, eg in the rhythm of brushstrokes in a painting (like the work of van Gogh) or in repeated shapes within a composition.</p>	<p>To understand the importance of consistently sized stitches.</p>
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