

# The Canterbury Primary School



## Knowledge and Skills Progression Document

### Design and Technology

Strands of the subject	Year R	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<p>Select appropriate resources</p> <p>Use gestures, talking and arrangements of materials and components to show design</p> <p>Use contexts set by the teacher</p> <p>Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)</p>	<p>have own ideas</p> <p>explain what I want to do</p> <p>explain what my product is for, and how it will work</p> <p>use pictures and words to plan, begin to use models</p> <p>design a product for myself following design criteria</p> <p>research similar existing products</p>	<p>have own ideas and plan what to do next</p> <p>explain what I want to do and describe how I may do it</p> <p>explain purpose of product, how it will work and how it will be suitable for the user</p> <p>describe design using pictures, words, models, diagrams, begin to use ICT</p> <p>design products for myself and others following design criteria</p> <p>choose best tools and materials, and explain choices</p>	<p>begin to research others' needs</p> <p>show design meets a range of requirements</p> <p>describe purpose of product</p> <p>follow a given design criteria</p> <p>have at least one idea about how to create product</p> <p>create a plan which shows order, equipment and tools</p> <p>describe design using an accurately labelled sketch and words</p> <p>make design decisions</p>	<p>use research for design ideas</p> <p>show design meets a range of requirements and is fit for purpose</p> <p>begin to create own design criteria</p> <p>have at least one idea about how to create product and suggest improvements for design.</p> <p>produce a plan and explain it to others</p> <p>say how realistic plan is.</p> <p>include an annotated sketch</p> <p>make and explain design decisions</p>	<p>use internet and questionnaires for research and design ideas</p> <p>take a user's view into account when designing</p> <p>begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose</p> <p>create own design criteria</p> <p>have a range of ideas</p> <p>produce a logical, realistic plan and explain it to others.</p> <p>use cross-sectional planning and</p>	<p>draw on market research to inform design</p> <p>use research of user's individual needs, wants, requirements for design</p> <p>identify features of design that will appeal to the intended user</p> <p>create own design criteria and specification</p> <p>come up with innovative design ideas</p> <p>follow and refine a logical plan.</p> <p>use annotated sketches, cross-</p>

			use knowledge of existing products to produce ideas	explain how product will work make a prototype begin to use computers to show design	considering availability of resources explain how product will work make a prototype begin to use computers to show design.	annotated sketches make design decisions considering time and resources. clearly explain how parts of product will work. model and refine design ideas by making prototypes and using pattern pieces. use computer-aided designs	sectional planning and exploded diagrams make design decisions, considering resources and cost clearly explain how parts of design will work, and how they are fit for purpose model and refine design ideas by making prototypes and using pattern pieces use computer-aided designs
Make	Construct with a purpose, using a variety of resources Use simple tools and techniques *Build / construct with a wide range of objects Select tools & techniques to shape, assemble and join Replicate structures with materials / components Discuss how to make an activity safe and hygienic Record experiences by drawing, writing, voice recording	explain what I'm making and why consider what I need to do next select tools/equipment to cut, shape, join, finish and explain choices measure, mark out, cut and shape, with support *choose suitable materials and explain choices try to use finishing techniques to make product look good work in a	explain what I am making and why it fits the purpose make suggestions as to what I need to do next. join materials/components together in different ways measure, mark out, cut and shape materials and components, with support. describe which tools I'm using and why choose suitable materials and explain choices	select suitable tools/equipment, explain choices; begin to use them accurately select appropriate materials, fit for purpose. work through plan in order *consider how good product will be begin to measure, mark out, cut and shape materials/components with some accuracy begin to assemble, join and combine materials and components with	select suitable tools and equipment, explain choices in relation to required techniques and use accurately select appropriate materials, fit for purpose; explain choices work through plan in order. realise if product is going to be good quality measure, mark out, cut and shape materials/components with some accuracy	use selected tools/equipment with good level of precision produce suitable lists of tools, equipment/materials needed select appropriate materials, fit for purpose; explain choices, considering functionality create and follow detailed step-by-step plan explain how product will appeal to an audience mainly accurately measure, mark out,	use selected tools and equipment precisely produce suitable lists of tools, equipment, materials needed, considering constraints select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics create, follow, and adapt detailed step-by-step plans explain how product will appeal to audience; make

	Understand different media		depending on characteristics. use finishing techniques to make product look good *work safely and hygienically	some accuracy begin to apply a range of finishing techniques with some accuracy	assemble, join and combine materials and components with some accuracy apply a range of finishing techniques with some accuracy	cut and shape materials/components mainly accurately assemble, join and combine materials/components mainly accurately apply a range of finishing techniques use techniques that involve a small number of steps begin to be resourceful with practical problems	changes to improve quality accurately measure, mark out, cut and shape materials/components accurately assemble, join and combine materials/components accurately apply a range of finishing techniques use techniques that involve a number of steps be resourceful with practical problems
Evaluate	Adapt work if necessary Dismantle, examine, talk about existing objects/structures Consider and manage some risks Practise some appropriate safety measures independently Talk about how things work Look at similarities and differences between existing objects / materials / tools Show an interest in technological toys Describe textures	talk about my work, linking it to what I was asked to do talk about existing products considering: use, materials, how they work, audience, where they might be used talk about existing products, and say what is and isn't good talk about things that other people have made begin to talk about what could make product better	describe what went well, thinking about design criteria talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion evaluate how good existing products are talk about what I would do differently if I were to do it again and why	look at design criteria while designing and making use design criteria to evaluate finished product say what I would change to make design better begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose begin to understand by whom, when and	refer to design criteria while designing and making use criteria to evaluate product begin to explain how I could improve original design evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose discuss by whom, when and where	evaluate quality of design while designing and making evaluate ideas and finished product against specification, considering purpose and appearance. test and evaluate final product evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose	evaluate quality of design while designing and making; is it fit for purpose? keep checking design is best it can be. evaluate ideas and finished product against specification, stating if it's fit for purpose test and evaluate final product; explain what would improve it and the effect different resources may have had do thorough evaluations of

				where products were designed learn about some inventors/designers/engineers/chefs/manufacturers of groundbreaking products	products were designed research whether products can be recycled or reused know about some inventors/designers/engineers/chefs/manufacturers of ground-breaking products	begin to evaluate how much products cost to make and how innovative they are research how sustainable materials are talk about some key inventors/designers/engineers/chefs/manufacturers of groundbreaking products	existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose evaluate how much products cost to make and how innovative they are research and discuss how sustainable materials are consider the impact of products beyond their intended purpose discuss some key inventors/designers/engineers/chefs/manufacturers of groundbreaking products
Technical Knowledge – Materials and Structures		begin to measure and join materials, with some support describe differences in materials suggest ways to make material/product stronger	Technical Knowledge – Materials and Structures measure materials describe some different characteristics of materials join materials in different ways *use joining, rolling or folding to make it stronger	use appropriate materials work accurately to make cuts and holes join materials begin to make strong structures	measure carefully to avoid mistakes attempt to make product strong continue working on product even if original didn't work make a strong, stiff structure	select materials carefully, considering intended use of product and appearance explain how product meets design criteria measure accurately enough to ensure precision ensure product is strong and fit for purpose	select materials carefully, considering intended use of the product, the aesthetics and functionality. explain how product meets design criteria reinforce and strengthen a 3D frame

			use own ideas to try to make product stronger			begin to reinforce and strengthen a 3D frame	
Technical Knowledge - Mechanisms		begin to use levers or slides	<p><b>Technical Knowledge - Mechanisms</b></p> <p>use levers or slides begin to understand how to use wheels and axles</p>	select appropriate tools / techniques alter product after checking, to make it better begin to try new/different ideas use simple lever and linkages to create movement	select most appropriate tools / techniques explain alterations to product after checking it grow in confidence about trying new / different ideas. use levers and linkages to create movement *use pneumatics to create movement	refine product after testing grow in confidence about trying new / different ideas begin to use cams, pulleys or gears to create movement	refine product after testing, considering aesthetics, functionality and purpose incorporate hydraulics and pneumatics be confident to try new / different ideas use cams, pulleys and gears to create movement
Technical Knowledge - Textiles		measure, cut and join textiles to make a product, with some support choose suitable textiles	<p><b>Technical Knowledge - Textiles</b></p> <p>measure textiles join textiles together to make a product, and explain how I did it carefully cut textiles to produce accurate pieces explain choices of textile understand that a 3D textile structure can be made from two identical fabric shapes</p>	join different textiles in different ways choose textiles considering appearance and functionality begin to understand that a simple fabric shape can be used to make a 3D textiles project	think about user when choosing textiles think about how to make product strong begin to devise a template explain how to join things in a different way understand that a simple fabric shape can be used to make a 3D textiles project	think about user and aesthetics when choosing textiles use own template think about how to make product strong and look better think of a range of ways to join things begin to understand that a single 3D textiles project can be made from a combination of fabric shapes.	think about user's wants/needs and aesthetics when choosing textiles make product attractive and strong make a prototype use a range of joining techniques think about how product might be sold think carefully about what would improve product understand that a single 3D textiles project can be made from a combination of fabric shapes.

<p><b>Technical Knowledge – Food and Nutrition</b></p>	<p>Begin to understand some food preparation tools, techniques and processes Practise stirring, mixing, pouring, blending Discuss how to make an activity safe and hygienic Discuss use of senses Understand need for variety in food Begin to understand that eating well contributes to good health</p>	<p>describe textures wash hands &amp; clean surfaces think of interesting ways to decorate food say where some foods come from, (i.e. plant or animal) describe differences between some food groups (i.e. sweet, vegetable etc.) discuss how fruit and vegetables are healthy cut, peel and grate safely, with support</p>	<p><b>Technical Knowledge – Food and Nutrition</b> explain hygiene and keep a hygienic kitchen describe properties of ingredients and importance of varied diet say where food comes from (animal, underground etc.) describe how food is farmed, home-grown, caught draw eat well plate; explain there are groups of food describe “five a day” cut, peel and grate with increasing confidence</p>	<p>carefully select ingredients use equipment safely make product look attractive think about how to grow plants to use in cooking begin to understand food comes from UK and wider world describe how healthy diet= variety/balance of food/drinks explain how food and drink are needed for active/healthy bodies. prepare and cook some dishes safely and hygienically grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading,</p>	<p>explain how to be safe/hygienic think about presenting product in interesting/ attractive ways understand ingredients can be fresh, pre-cooked or processed begin to understand about food being grown, reared or caught in the UK or wider world describe eat well plate and how a healthy diet=variety / balance of food and drinks explain importance of food and drink for active, healthy bodies prepare and cook some dishes safely and hygienically use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p>	<p>explain how to be safe / hygienic and follow own guidelines present product well - interesting, attractive, fit for purpose begin to understand seasonality of foods understand food can be grown, reared or caught in the UK and the wider world describe how recipes can be adapted to change appearance, taste, texture, aroma explain how there are different substances in food / drink needed for health prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>	<p>understand a recipe can be adapted by adding / substituting ingredients explain seasonality of foods learn about food processing methods name some types of food that are grown, reared or caught in the UK or wider world adapt recipes to change appearance, taste, texture or aroma. describe some of the different substances in food and drink, and how they can affect health prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source. use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>
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Technical Knowledge – Electrical Systems				use simple circuit in product learn about how to program a computer to control product.	use number of components in circuit program a computer to control product	incorporate switch into product confidently use number of components in circuit begin to be able to program a computer to monitor changes in environment and control product	use different types of circuit in product think of ways in which adding a circuit would improve product program a computer to monitor changes in environment and control product
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### End Points

Year R	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mockups and, where appropriate, information and communication technology Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Use the basic principles of a healthy and varied diet to prepare dishes			Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups .Generate, develop, model and communicate their ideas through discussion, annotated sketches, crosssectional and exploded diagrams, prototypes, pattern pieces and computeraided design Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]			

Understand where food comes from.

### **Taken from the National Curriculum**

#### **Design and Technology**

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

**Make** select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

**Select** from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

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

#### **Technical knowledge**

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

#### **Cooking and Nutrition**

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

Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Understand and use electrical systems in their products [for example, series circuits

### **Taken from the National Curriculum**

#### **Design and Technology**

**Design** use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

**Make** select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

**Select** from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

**Evaluate** investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world

**Technical knowledge** apply their understanding of how to strengthen, stiffen and reinforce more complex structures ☒ understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.

#### **Cooking and Nutrition**

understand and apply the principles of a healthy and varied diet ☒ prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques ☒



	understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
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Topic/Term 2,4,6	What you designed/designed/made (Please add Photo of finished products)	Resources required
TERM 2		
Year R		
Year 1	<p>Research/Skill - Design and Technology - Food and Nutrition S/F: To research and explore Mexican /Canadian food.</p> <p>Design - Design and Technology- S/F: To design a plate of food native to the country Mexico/Canada.</p> <p>Make - Design and Technology - S/F: To make my plate of food following my plan.</p> <p>Evaluate - Design and Technology: S/F: To review Useful website links -</p>	<p>Paper plates Pens Photos of foods Food groups</p> <p>Additional - we made salsa and made pancakes Flour Milk Eggs Bowls Wooden spoons Tomatoes Mint Onions Garlic White wine vinegar Limes coriander Knives Chopping boards Gloves</p>
Year 2	<p>Research: Design and Technology - Food and Nutrition S/F: To research and explore South American food.</p> <p>Design: S/F: To design a plate of food native to the country Brazil</p> <p>Make: S/F: To make my plate of food following my plan.</p>	<p><b><u>Rio Carnival Salsa</u></b> Paper plates Pens Photos of foods Food groups chopping board knives</p>

	Evaluate: S/F: To review my plate of food	Bowls large red bell peppers large yellow bell peppers large orange bell peppers cherry tomatoes cucumber red onions sweetcorn red kidney beans olive oil tortilla chips
Year 3	<i>Research/Skill - Design and Technology - Food and Nutrition</i> <i>S/F: To research and explore Chinese food (term 2)</i> <i>Design - Design and Technology-</i> <i>S/F: To design a plate of food native to the country China</i> <i>Make - Design and Technology -</i> <i>S/F: To make my plate of food following my plan.</i> <i>Evaluate - Design and Technology: S/F: To review</i> <i>Useful website links -</i>	Vegetable spring rolls: carrots, cucumber, bean shoots, spring onions, soy sauce, chinese rice pancakes, Knives Paper plates Paper bowls Chopping boards
Year 4		
Year 5		
Year 6	<b>Design and create stained glass windows inspired by visit to Canterbury Cathedral.</b>  <b>Research/Skill:</b> Looking at stained glass windows during trip to Canterbury Cathedral. Identifying features and purpose.  <b>Design:</b> Identify features of design that will appeal to the intended user create own design criteria and specification come up with innovative design ideas.	Card, scissors, coloured paper, glue, glue guns Tissue paper, see through shiny paper

	<p><b>Make:</b> Accurately measure, mark out, cut and shape materials/components</p> <p><b>Evaluate:</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve.</p>	
TERM 4		
Year R		
Year 1	<p>Research/Skill - Design and technology- Research wind turbines How they work and what they are used for To explore types of folding</p> <p>Design - Design and Technology- Plan a Wind Turbine with a list of resources</p> <p>Make - Design and Technology - Build a wind turbine using the resources stated</p> <p>Evaluate - Design and Technology: Make reasonable adjustments to improve the sturdiness of the wind turbine</p> <p>Design and Technology: Review and display the wind turbines, what went well, what needs improving</p> <p>Useful website links - How wind energy produced - <a href="https://www.youtube.com/watch?v=-8-9j3mXIYE">https://www.youtube.com/watch?v=-8-9j3mXIYE</a></p> <p>Making a wind Turbine - <a href="https://www.youtube.com/watch?v=vmM5kO2PjCo">https://www.youtube.com/watch?v=vmM5kO2PjCo</a></p> <p>How a wind turbine works - <a href="https://www.youtube.com/watch?v=gHUUJqTT3THU">https://www.youtube.com/watch?v=gHUUJqTT3THU</a></p>	<p>Paper for folding exercise- card</p> <p>Kitchen roll tubes</p> <p>Paper cups</p> <p>Paper clips</p> <p>Card</p> <p>Card board</p> <p>String</p> <p>Marbles</p> <p>Skewers</p> <p>Tape</p> <p>Plastic straws</p> <p>Photo instructions</p> <p>Saws</p> <p>Wood</p> <p>Hammers</p> <p>Nails</p> <p>Wood glue</p> <p>Clamps</p>
Year 2	<p><b>Research:</b> Types of lizards that live near and around volcanic areas. Sewing</p> <p><b>Design:</b> Design a lizard sock puppet</p> <p><b>Make:</b> Make a lizard sock puppet</p> <p><b>Evaluate:</b> Review- what went well, what could be improved</p>	<p>Different colour felt</p> <p>Buttons</p> <p>Thread</p> <p>Needles</p> <p>Pins</p> <p>Glue guns</p>

	<a href="https://holloughby.blogspot.com/2011/05/sewing-tuesday-lizard-named-lionel.html">https://holloughby.blogspot.com/2011/05/sewing-tuesday-lizard-named-lionel.html</a>	
Year 3	<p>Earthquakes</p> <p>Discussion: how are buildings made earthquake proof (Japan)</p> <p>Design: how will structure withstand an earthquake. What can we use to help it remain standing?</p> <p>Make: A structure from art straws and other materials, that is at least two storeys high that can remain standing during a "jelly" earthquake.</p> <p>Evaluate: How would you improve your design and why?</p>	<p>Jelly</p> <p>Plastic containers for jelly</p> <p>Art straws</p> <p>Matchsticks</p> <p>Lolly sticks</p> <p>Masking tape</p> <p>Glue guns</p>
Year 4	<p>Floods -</p> <p>Discussion - essential features</p> <p>Design - how will the water be collected? How will the gauge be made stable?</p> <p>Make - resources from home and school.</p> <p>Creating an accurate scale to measure water collected.</p> <p>Evaluate - how would you improve your design and why?</p>	<p>Glue guns</p> <p>Scissors</p> <p>Tape</p> <p>Children source their own materials according to their designs.</p>
	<p>Term 5 - sewing</p> <p>Creating a stitched page-corner bookmark</p> <p>Discrete teaching of skills - thread needle, running stitch, starting knot and finishing seam knot.</p>	<p>Felt</p> <p>Cotton thread</p> <p>Needles</p> <p>Needle-threaders</p>
Year 5		
Year 6	<p><b><u>Project 2: plastic sculptures to showcase at end of term Climate Change exhibition for parents</u></b></p> <p>Design:</p> <p>use annotated sketches, cross sectional planning and exploded diagrams make design fit for purpose independently model and refine design ideas by making prototypes and using pattern pieces</p>	<p>Junk plastic, glue guns, scissors</p>

	<p>Make:</p> <p>Use selected tools and equipment precisely produce suitable lists of tools, equipment, materials needed, considering constraints select appropriate materials, fit for purpose</p> <p>Create, follow, and adapt detailed step-by-step plans explain how product will appeal to audience; make changes to improve quality accurately measure, mark out, cut and shape materials/components accurately assemble, join and combine materials/components.</p> <p>Evaluate:</p> <p>Evaluate ideas and finished product against specification. Explain what would improve it and the effect different resources may have had do thorough evaluations.</p>	
TERM 6		
Year R		
Year 1	<p>To research plan and make a life jacket</p> <p>Sewing - <a href="https://www.youtube.com/watch?app=desktop&amp;v=c7oQfYXqF4M&amp;t=7s">https://www.youtube.com/watch?app=desktop&amp;v=c7oQfYXqF4M&amp;t=7s</a></p> <p>Sewing poster word cards-<a href="https://www.twinkl.co.uk/resource/t-m-866-simple-sewing-stitches-display-posters">https://www.twinkl.co.uk/resource/t-m-866-simple-sewing-stitches-display-posters</a> <a href="https://www.twinkl.co.uk/resource/sewing-key-word-cards-t-tp-1636113876">https://www.twinkl.co.uk/resource/sewing-key-word-cards-t-tp-1636113876</a> <a href="https://www.twinkl.co.uk/resource/ks2-lets-talk-textiles-powerpoint-t2-t-1586">https://www.twinkl.co.uk/resource/ks2-lets-talk-textiles-powerpoint-t2-t-1586</a> Joining fabrics ppt - <a href="https://www.twinkl.co.uk/resource/tp-d-036-planit-dt-ks1-our-fabric-faces-lesson-3-joining-fabrics-lesson-pack">https://www.twinkl.co.uk/resource/tp-d-036-planit-dt-ks1-our-fabric-faces-lesson-3-joining-fabrics-lesson-pack</a></p>	<p>Teddies Thread Needles Felt Material Fabric pens Googly eyes Buttons Waterproof material Threading resources</p>
Year 2	<p>Use levers or slides begin to understand how to use wheels and axles. Make a moving picture (Wildlife at a river or lake)</p>	<p>Card Lolly sticks</p>

	<p><b>Research:</b> Sliders and wheels (sun)</p> <p><b>Design:</b> Design a moving picture with wildlife at a river or lake using a slider and/or wheel.</p> <p><b>Make:</b> Make moving picture with wildlife at a river or lake using a slider and/or wheel.</p> <p><b>Evaluate:</b> Evaluate moving picture with wildlife at a river or lake using a slider and/or wheel. what went well, what needs improving</p>	<p>Split pins</p> <p>Masking tape</p> <p>Pens/ pencils</p> <p>Wildlife, Lakes/Rivers pictures</p> <p>Flat wheels</p>
Year 3	<p>Design and make a village/countryside diorama</p> <p>Research a village/countryside setting from what they have seen on school trip to Godmersham Park Farm.</p> <p>Design a diorama using mixed media including 3d structures.</p> <p>Evaluate: does their diorama depict a rural scene? What elements of urbanism are included?</p>	<p>Boxes from home</p> <p>Junk modelling</p> <p>Variety of materials including tissue paper, crepe paper, cardboard, card</p> <p>Glue</p> <p>Lolly sticks</p> <p>Paint</p> <p>Glue guns</p> <p>Pens and colouring pencils</p> <p>String</p>
Year 4	<p>Design a healthy city</p> <p>Research/discuss - what makes a city a healthy city</p> <p>Design - create a design that reflects their criteria</p> <p>Make - mock-up city. table-top Select and join materials. Alter them appropriately for the design.</p> <p>Share - invite parents in to view these. Encourage parents to ask children why they chose to include features and materials.</p> <p>Evaluate - Children</p>	<p>Competition entry</p> <p>Thick cardboard for bases</p> <p>Junk modelling - containers to alter, join</p> <p>Materials for organic features of landscape</p>
Year 5	<p>Design a water mill</p> <p><b>Research/Skill:</b> Undertake online research etc. To understand the purpose and design of a watermill.</p>	

**Design:** Identify features of design that will appeal to the intended user create own design criteria and specification  
come up with innovative design ideas.

**Make:** Accurately measure, mark out, cut and shape materials/components.

**Evaluate:** Evaluate their ideas and products against their own design criteria and consider the views of others to improve.

Year 6