

# DT CURRICULUM OVERVIEW



<b>VISION</b>	<b>Our vision is to prepare our children with skills for life which will inspire them to be creative individuals.</b>
<b>INTENT</b>	<p>To prepare our children with skills for life, inspiring them to be creative, innovative, resourceful, and enterprising individuals. We intend to provide a broad and balanced DT education that builds progressively from Early Years Foundation Stage (EYFS) through to Key Stage 2. Our curriculum, based on the Design &amp; Technology Association (DATA) resources, is designed to equip children with the knowledge, understanding, and practical skills to design, make, and evaluate a range of authentic products for a clear user and purpose, covering key areas: Structures; Mechanisms (Mechanical and Electrical Systems); Food; Textiles.</p> <ul style="list-style-type: none"> <li>• We foster a critical understanding of functionality, encouraging pupils to <b>make their own design decisions and embrace innovation</b>.</li> <li>• We strive to nurture <b>a love for practical learning</b>, encouraging children to take risks, experiment, and learn from their mistakes in a supportive environment.</li> <li>• Appreciating the impact of design and technology on daily life and the wider world.</li> </ul>
<b>IMPLEMENTATION</b>	<p>The Design and Technology curriculum at Wildmoor is implemented through a carefully planned, progressive sequence of iterative design and making experiences. DT is taught through dedicated units, often linked to wider topics, ensuring children have sufficient time to engage deeply in the design, make, and evaluate process.</p> <ul style="list-style-type: none"> <li>• <b>Structured Projects:</b> Each year group will undertake a minimum of three DT projects per year, covering key areas such as Structures, Mechanisms (Mechanical and Electrical Systems), Food, and Textiles, as outlined in our long-term plan.</li> <li>• <b>Iterative Design Process:</b> Pupils will be explicitly taught and encouraged to follow an iterative design process, where thought leads to action, resulting in further thought and action to resolve design problems:             <ul style="list-style-type: none"> <li>○ Explore: Research existing products, explore materials, and investigate user needs and purposes.</li> <li>○ Design: Generate and develop innovative ideas, draw detailed designs, create prototypes, and make informed design decisions.</li> <li>○ Make: Select and use appropriate tools, equipment, materials, and components safely and accurately, applying a range of techniques (e.g., peeling, chopping, slicing, grating, mixing, spreading, kneading, baking, joining, cutting, shaping).</li> <li>○ Evaluate: Test, critique, and refine their products against design criteria, considering functionality, authenticity, and the views of others. They will also learn to evaluate existing products.</li> </ul> </li> <li>• <b>Skills and Knowledge Progression:</b> A clear progression document ensures that children build upon prior learning, introducing new tools, techniques, and materials at appropriate stages across all DT areas, from simple levers in Year 1 to cams, pulleys, gears, hydraulics, and pneumatics in later years, and from basic food preparation to understanding seasonality and adapting recipes.</li> <li>• <b>Cross-Curricular Links:</b> Where appropriate, DT projects will be linked to other subjects (e.g., Science, Art, Mathematics) to provide a rich and meaningful context for learning, supporting the development of broader skills.</li> <li>• <b>Resources and Environment:</b> We provide a well-resourced environment with a range of tools, materials, and equipment, ensuring safe and practical learning opportunities.</li> <li>• <b>Health and Safety:</b> Explicit teaching of health and safety procedures, particularly in food preparation and tool use, is integral to all practical DT lessons.</li> </ul>
<b>IMPACT</b>	<ul style="list-style-type: none"> <li>• <b>Creative and Innovative Thinkers:</b> Children will confidently generate original ideas, take creative risks, and develop innovative and authentic solutions to design challenges, demonstrating originality in their thinking.</li> <li>• <b>Skilled and Resourceful Makers:</b> Pupils will demonstrate increasing proficiency in using a variety of tools, materials, and techniques safely and effectively across different DT areas (mechanisms, structures, textiles, food) to create functional and aesthetically pleasing products. They will be resourceful in solving practical problems.</li> <li>• <b>Critical Evaluators:</b> Children will be able to critically evaluate their own work and the work of others against design criteria, identifying strengths and areas for improvement, and articulating their reasoning, considering purpose, functionality, and appeal.</li> <li>• <b>Resilient Problem Solvers:</b> Pupils will approach challenges with resilience and perseverance, systematically finding solutions and adapting their work when original ideas do not work.</li> </ul>



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- **Knowledgeable and Understanding:** Children will develop a secure understanding of key DT concepts, including how structures are strengthened, how mechanisms create movement, the properties of textiles, and the principles of healthy food preparation, and appreciate the role of DT in society and its impact beyond its intended purpose.
  - **Confident and Independent:** They will develop independence in their learning, taking ownership of their projects, showing initiative, and confidently explaining their design decisions and processes.
  - **Prepared for Future Learning:** Pupils will be well-prepared for the next stage of their education, equipped with foundational DT skills, a positive attitude towards practical and creative subjects, and an understanding of key inventors, designers, and manufacturers.
- The impact will be assessed through ongoing formative assessment during lessons, analysis of pupils' completed products and design portfolios, pupil voice discussions, and the ability of pupils to articulate their design process and justify their decisions.

## Learning Sandwich

### ENQUIRY

#### SUBSTANTIVE KNOWLEDGE

Structures  
 Mechanisms  
 (Mechanical or Electrical Systems)  
 Food  
 Textiles

#### DISCIPLINARY KNOWLEDGE

Explore  
 Design  
 Make  
 Evaluate






#### BIG IDEAS

Design  
 Make  
 Evaluate  
 Technical Knowledge  
 Environment & Sustainability

### COMMUNICATION

# DT CURRICULUM OVERVIEW

## Big Ideas

<p><b>DESIGN</b></p>  <p>DESIGN</p>	<p>Primary Design &amp; Technology designing is about children exploring how things work and developing ideas for products that suit real needs. They learn to work in a variety of meaningful contexts—such as home, school, stories, the community or the wider environment—and think about who their product is for, what it is for and how it will work. Pupils gather information about users’ needs, create simple design criteria and use these to shape and refine their ideas. As they grow in confidence, they explore materials freely, experiment with colour, texture, form and function, and build on previous learning to improve their designs. They learn to plan what to do next, choose appropriate tools, materials and components, and justify these choices based on their characteristics, functionality and aesthetic qualities.</p>
<p><b>MAKE</b></p>  <p>MAKE</p>	<p>Primary Design &amp; Technology making focuses on developing children’s practical skills, creativity, and understanding of materials, tools, and food. Pupils learn to use tools safely and effectively, developing fine motor skills and working through multi-step processes to measure, cut, shape, assemble, join and finish materials with increasing accuracy. They explore a wide range of resources—using wood, paper and card to make a construction, textiles, mechanical parts and food ingredients. Children learn safe and hygienic practices, particularly when preparing food. In cooking and nutrition, they discover where food comes from, understanding that it is grown, reared or caught in the UK and beyond, and that seasons affect availability. They begin to make healthy choices, learn to sort foods into groups, and prepare simple dishes safely using techniques like cutting, peeling and grating. As they progress, they understand how a balanced diet supports health and how recipes can be adapted for appearance, taste, texture or aroma.</p>
<p><b>EVALUATE</b></p>  <p>EVALUATE</p>	<p>Primary Design &amp; Technology evaluating is about children reflecting on both their own products and existing examples to deepen their understanding of design. Pupils learn to talk about their ideas, explain the processes they used, and make simple judgements against design criteria. As they progress, they identify strengths and areas for improvement, consider feedback from others—especially intended users—and refine their work accordingly. Older pupils evaluate their products more critically, assessing quality, functionality and how well their designs meet the original specification and user needs. When examining existing products, children explore who the product is for, what it is for, how it works, and how and where it is used. They think about materials, methods of construction, and why certain choices were made. Over time, they compare how well products are designed and made, how effectively they fulfil their purpose, their cost, and how innovative they are.</p>
<p><b>TECHNICAL KNOWLEDGE</b></p>  <p>TECHNICAL KNOWLEDGE</p>	<p>Primary Design &amp; Technology technical knowledge helps children understand how materials, mechanisms, structures, electrical systems and food processes work so they can design and make effective products. Pupils learn the basic characteristics of materials and components, how simple mechanisms like levers, sliders, wheels and axles create movement, and how structures can be made stronger, stiffer and more stable. They explore textiles by assembling simple 3D products from fabric shapes and learn that ingredients can be combined based on their sensory qualities. Throughout, they use correct technical vocabulary linked to their projects. As children progress, they draw on learning from science and maths to improve functionality, understanding that materials have both functional and aesthetic qualities and can be combined for better performance. They explore how mechanical and electrical systems work through inputs, processes and outputs, and they begin to create functional products using circuits, programmable components and computer control. Older pupils investigate more complex mechanisms such as cams, pulleys and gears; build stronger shell or frame structures; create textiles products from varied fabric pieces; and understand how recipes can be adapted by changing ingredients.</p>
<p><b>ENVIRONMENT &amp; SUSTAINABILITY</b></p>  <p>ENVIRONMENT/SUSTAINABILITY</p>	<p>Primary Design &amp; Technology environment and sustainability introduces children to the natural world and the impact of materials on it. Pupils begin by exploring natural materials, understanding their properties, and learning simple concepts of waste, recycling, and reusing. They develop curiosity about where materials come from and participate in discussions about caring for the environment. As they progress, children distinguish between natural and man-made materials, explore sustainable materials in projects, and understand the importance of avoiding waste. They learn about the 3Rs—Reduce, Reuse, Recycle—and start to consider the effects of littering and pollution. Older pupils evaluate how sustainable materials are, the wider environmental impact of products, and innovations such as biodegradable plastics and renewable energy, linking sustainability directly to design and making.</p>

# DT CURRICULUM OVERVIEW



## Long Term Plan

Year	Autumn	Spring	Summer
Reception	<b>Textiles</b> Christmas Sewing	<b>Structures</b> Trap for the gingerbread man	<b>Food</b> Healthy Eating week
YEAR 1	<b>Mechanisms</b> <a href="#">Sliders and levers</a> moving book character	<b>Food</b> Preparing fruit & vegetables <a href="#">fantastic fruit</a>	<b>Textiles</b> Templates and joining techniques <a href="#">puppet</a>
YEAR 2	<b>Mechanisms</b> <a href="#">Wheels and axles</a> fire engine	<b>Structures</b> Freestanding structures <a href="#">homes/shops</a>	<b>Food</b> Preparing fruit & vegetables <a href="#">dips</a>
YEAR 3	<b>Mechanisms (Mechanical Systems)</b> Pneumatics <a href="#">mascot</a>	<b>Textiles</b> 2D shape to 3D product <a href="#">bag</a>	<b>Food</b> Healthy eating <a href="#">Super salads</a>
YEAR 4	<b>Food</b> Healthy and varied diet <a href="#">sandwich snacks / pizza</a>	<b>Structures</b> Easter egg box <a href="#">shell structures</a>	<b>Mechanisms (Mechanical Systems)</b> Levers and linkages <a href="#">story book / greetings card</a>
YEAR 5	<b>Structures</b> Frames <a href="#">bird hide / bee hotel</a>	<b>Food</b> Celebrating culture <a href="#">bread</a>	<b>Mechanisms (Mechanical Systems)</b> Cams <a href="#">moving messages</a>
YEAR 6	<b>Food</b> Seasonality <a href="#">carrot / potato soup / stew</a>	<b>Textiles</b> Combining different fabric shapes <a href="#">phone case / bean bag toy</a>	<b>Mechanisms (Electrical Systems)</b> Electrical board game



# DT CURRICULUM OVERVIEW

## Progression Objectives

YEAR GROUP	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>SUBSTANTIVE KNOWLEDGE</b>							
<b>Mechanisms (KS1)</b> <b>Mechanical Systems &amp; Electrical Systems (KS2)</b> 		Begin to use levers or slides.	Use levers or slides. Begin to understand how to use wheels and axles.	Select appropriate tools / techniques. Alter product after checking, to make it better. Begin to try new/different ideas. Use simple levers and linkages to create movement.	Select the most appropriate tools / techniques. Explain alterations to the 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.
<b>Structures</b> 		Begin to measure and join materials, with some support. Describe differences in materials. Suggest ways to make material / product stronger.	Measure materials. Describe some different characteristics of materials. Join materials in different ways. Use joining, rolling or folding to make it stronger. Use their own ideas to try to make the product 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 a product strong. Continue working on the product even if the original didn't work. Make a strong, stiff structure.	Select materials carefully, considering intended use of product and appearance. Explain how the product meets design criteria. Measure accurately enough to ensure precision. Ensure the product is strong and fit for purpose. Begin to reinforce and strengthen a 3D frame.	Select materials carefully, considering intended use of the product, the aesthetics and functionality. Explain how the product meets design criteria. Reinforce and strengthen a 3D frame.
<b>Textiles</b> 		Measure, cut and join textiles to make a product, with some support. Choose suitable textiles.	Measure textiles. Join textiles together to make a product, and explain how they 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.	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 the user when choosing textiles. Think about how to make a 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 their own template. Think about how to make a 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 the user's wants / needs and aesthetics when choosing textiles. Make products attractive and strong. Make a prototype. Use a range of joining techniques. Think about how the product might be sold. Think carefully about what would improve the product. Understand that a single 3D textiles project can be made from a combination of fabric shapes.





# DT CURRICULUM OVERVIEW

<p><b>Food</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 the 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>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 the Eatwell Plate and 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 products look attractive. Think about how to grow plants to use in cooking. Begin to understand that food comes from the UK and the wider world. Describe how a 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, kneading and baking.</p>	<p>Explain how to be safe/hygienic. Think about presenting a product in an interesting / attractive way. 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 the Eatwell Plate and how a healthy diet=variety / balance of food and drinks. Explain the 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 their own guidelines. Present product well - interesting, attractive, fit for purpose. Begin to understand the 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 a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>	<p>Understand that 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 a heat source. Use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p>
<p><b>DISCIPLINARY KNOWLEDGE</b></p>							
<p><b>Design</b></p> 	<p>Select appropriate resources. Use gestures, talking and arrangements of materials and components to show design. Use the language of designing and making (join, build, shape, longer, shorter, heavier etc.).</p>	<p>Have their own ideas. Explain what they want to do. Explain what product is for, and how it will work. Use pictures and words to plan, begin to use models. Design a product for themselves following design criteria. Research similar existing products.</p>	<p>Have their own ideas and plan what to do next. Explain what they want to do and describe how they may do it. Explain purpose of product, how it will work and how it will be suitable for the user. Describe design using pictures, words, models, diagrams. Design products for themselves and others following design criteria. Choose the best tools and materials, and explain choices. Use knowledge of existing products to produce ideas.</p>	<p>Begin to research others' needs. Design meets a range of requirements. Describe purpose of product. Follow a given design criteria. Have at least one idea about how to create a product. Create a plan which shows order, equipment and tools. Describe design using an accurately labelled sketch and words. Make design decisions explain how product will work. Make a prototype.</p>	<p>Use research for design ideas. Design meets a range of requirements and is fit for purpose. Begin to create their own design criteria. Have at least one idea about how to create a product and suggest improvements for design. Produce a plan and explain it to others. Say how realistic plan is include an annotated sketch. Make and explain design decisions considering availability of resources. Explain how the product</p>	<p>Use the internet and questionnaires for research and design ideas. Take a user's view into account when designing. Begin to consider the needs of individuals or groups when designing and ensure the product is fit for purpose. Create their own design criteria. Have a range of ideas. Produce a logical, realistic plan and explain it to others. Use cross-sectional planning and annotated sketches.</p>	<p>Draw on market research to inform design. Use research of user's individual needs, wants, requirements for design identify features of design that will appeal to the intended user. Create own design criteria and specification come up with innovative design ideas. Follow and refine a logical plan use annotated sketches, cross sectional planning and exploded diagrams make design decisions, considering resources and cost.</p>



# DT CURRICULUM OVERVIEW

				Begin to use computers to show design.	will work. Make a prototype. Begin to use computers to show design.	Make design decisions considering time and resources. Clearly explain how parts of the product will work. Model and refine design ideas by making prototypes and using pattern pieces. Use computer-aided designs.	Clearly explain how parts of design will work, and how they are fit for purpose. Independently model and refine design ideas by making prototypes and using pattern pieces. Use computer-aided designs.
<b>Make</b> 	<p>Construct with a purpose, using a variety of resources. Use simple tools and techniques.</p> <p>Build / construct with a wide range of objects. Select tools and techniques to shape, assemble and join. Replicate structures with materials / components.</p> <p>Discuss how to make an activity safe and hygienic. Record experiences by drawing, writing, voice recording.</p> <p>Understand that different media can be combined for a purpose.</p>	<p>Explain what they are making and why. Consider what they need to do next.</p> <p>Select tools/equipment to cut, shape, join, finish and explain choices.</p> <p>Measure, mark out, cut and shape, with support. Choose suitable materials and explain choices.</p> <p>Try to use finishing techniques to make the product look good.</p> <p>Work in a safe and hygienic manner.</p>	<p>Explain what they are making and why it fits the purpose.</p> <p>Make suggestions as to what they need to do next.</p> <p>Join materials / components together in different ways.</p> <p>Measure, mark out, cut and shape materials and components, with support.</p> <p>Describe which tools they are using and why.</p> <p>Choose suitable materials and explain choices depending on characteristics.</p> <p>Use finishing techniques to make the product look good.</p> <p>Work safely and hygienically.</p>	<p>Select suitable tools / equipment and explain choices.</p> <p>Begin to use tools accurately.</p> <p>Select appropriate materials, fit for purpose.</p> <p>Work through the plan in order.</p> <p>Consider how good the product will be.</p> <p>Begin to measure, mark out, cut and shape materials / components with some accuracy.</p> <p>Begin to assemble, join and combine materials and components with some accuracy.</p> <p>Begin to apply a range of finishing techniques with some accuracy.</p>	<p>Select suitable tools and equipment and explain choices in relation to required techniques and use accurately.</p> <p>Select appropriate materials, fit for purpose, explaining choices.</p> <p>Work through the plan in order.</p> <p>Realise if the product is going to be good quality.</p> <p>Measure, mark out, cut and shape materials / components with some accuracy.</p> <p>Assemble, join and combine materials and components with some accuracy.</p> <p>Apply a range of finishing techniques with some accuracy.</p>	<p>Use selected tools / equipment with a good level of precision.</p> <p>Produce suitable lists of tools, equipment / materials needed.</p> <p>Select appropriate materials, fit for purpose; explaining choices, considering functionality.</p> <p>Create and follow a detailed step-by-step plan.</p> <p>Explain how the product will appeal to an audience.</p> <p>Mainly accurately measure, mark out, cut and shape materials / components.</p> <p>Mostly accurately assemble, join and combine materials / components.</p> <p>Mostly accurately apply a range of finishing techniques.</p> <p>Use techniques that involve a small number of steps.</p> <p>Begin to be resourceful with practical problems.</p>	<p>Use selected tools and equipment precisely.</p> <p>Produce suitable lists of tools, equipment, materials needed, considering constraints.</p> <p>Select appropriate materials, fit for purpose, explaining choices, considering functionality and aesthetics.</p> <p>Create, follow, and adapt detailed step-by-step plans.</p> <p>Explain how the product will appeal to the audience, making changes to improve quality.</p> <p>Accurately measure, mark out, cut and shape materials / components.</p> <p>Accurately assemble, join and combine materials / components.</p> <p>Accurately apply a range of finishing techniques.</p> <p>Use techniques that involve a number of steps.</p> <p>Be resourceful with practical problems.</p>
<b>Evaluate</b> 	<p>Adapt work if necessary. Dismantle, examine, talk about existing objects/structures. Consider and manage some risks.</p> <p>Practise some appropriate safety measures independently.</p> <p>Talk about how things work.</p>	<p>Talk about their work, linking it to what they were asked to do.</p> <p>Talk about existing products considering: use, materials, how they work, audience, where they might be used.</p> <p>Talk about existing products, and say what is and isn't good.</p>	<p>Describe what went well, thinking about design criteria.</p> <p>Talk about existing products considering: use, materials, how they work, audience, where they might be used, expressing personal opinion.</p> <p>Evaluate how good existing products are.</p> <p>Talk about what they</p>	<p>Look at design criteria while designing and making.</p> <p>Use design criteria to evaluate finished products.</p> <p>Say what they would change to make design better.</p> <p>Begin to evaluate existing products, considering: how well they have been made, materials, whether they</p>	<p>Refer to design criteria while designing and making.</p> <p>Use criteria to evaluate a product.</p> <p>Begin to explain how they could improve original design.</p> <p>Evaluate existing products, considering: how well they've been made, materials, whether they</p>	<p>Evaluate quality of design while designing and making.</p> <p>Evaluate ideas and finished product against specification, considering purpose and appearance.</p> <p>Test and evaluate the final product.</p> <p>Evaluate and discuss existing products, considering: how well</p>	<p>Evaluate quality of design while designing and making; is it fit for purpose?</p> <p>Keep checking design is the best it can be.</p> <p>Evaluate ideas and finished product against specification, stating if it's fit for purpose.</p> <p>Test and evaluate the final</p>







## DT CURRICULUM OVERVIEW

	<p>Look at similarities and differences between existing objects / materials / tools.</p> <p>Show an interest in technological toys.</p> <p>Describe textures.</p>	<p>Talk about things that other people have made.</p> <p>Begin to talk about what could make the product better.</p>	<p>would do differently if they were to do it again and why.</p>	<p>work, how they have been made, fit for purpose.</p> <p>Begin to understand by whom, when and where products were designed.</p> <p>Learn about some inventors / designers / engineers / chefs / manufacturers of groundbreaking products.</p>	<p>work, how they have been made, fit for purpose.</p> <p>Discuss by whom, when and where products were designed.</p> <p>Research whether products can be recycled or reused.</p> <p>Know about some inventors / designers / engineers / chefs / manufacturers of ground-breaking products.</p>	<p>they've been made, materials, whether they work, how they have been made, fit for purpose.</p> <p>Begin to evaluate how much products cost to make and how innovative they are.</p> <p>Research how sustainable materials are.</p> <p>Talk about some key inventors / designers / engineers / chefs / manufacturers of ground-breaking products.</p>	<p>product, explaining what would improve it and the effect different resources may have had.</p> <p>Do thorough evaluations of existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose.</p> <p>Evaluate how much products cost to make and how innovative they are.</p> <p>Research and discuss how sustainable materials are.</p> <p>Consider the impact of products beyond their intended purpose.</p> <p>Discuss some key inventors / designers/ engineers / chefs / manufacturers of ground-breaking products.</p>
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# DT CURRICULUM OVERVIEW

## Assessment

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Mechanisms</b> 	<b>Moving Book Character:</b> Can you demonstrate how to use a lever or a slider to make your character move? How did you use your own ideas to make your character unique?	<b>Fire Engine:</b> Can you explain how the wheels and axles work together to make the engine move? Why did you choose these specific materials for the chassis and wheels?	<b>Pneumatic Mascot:</b> How does the air in the pneumatic system create movement in your mascot? How did your research into existing products help you come up with your design?	<b>Story Book/Greetings Card:</b> Can you explain how your linkages create different types of movement on the page? How did you use feedback from others to improve your original design?	<b>Moving Messages:</b> Which cam shape did you use, and how does it change the movement of your message? What are the benefits and drawbacks of the alternative design plans you considered?	<b>Electrical Board Game:</b> How did you incorporate a circuit or programmable component to make your game functional? How did you manage your budget and resources to ensure the product was viable?
<b>Structures</b> 		<b>Homes:</b> What techniques (like folding or rolling) did you use to make your walls stronger? Can you explain what went well with your building and what you might change next time?		<b>Easter Egg Box:</b> How did you measure and mark your materials to ensure the box fits the egg accurately? What did you do to make sure your shell structure was stiff and stable?	<b>Bird Hide/Bee Hotel:</b> How did you reinforce the 3D frame to make it fit for its purpose outdoors? How does your final product meet the specific needs of the "user" (birds/bees)?	
<b>Textiles</b> 	<b>Puppet:</b> How did you join your textile pieces together to make the puppet's body? What did you find difficult when cutting your fabric, and how did you fix it?		<b>Bag:</b> How did you turn a 2D fabric shape into a 3D bag? Which joining technique did you choose to make sure the bag is strong enough to hold items?			<b>Phone Case/Bean Bag Toy:</b> How did your market research influence the aesthetics and functionality of your product? Which complex joining techniques did you use to combine different fabric shapes?
<b>Food</b> 	<b>Fruit Smoothies:</b> Can you describe the texture of the fruit you are using (e.g., crunchy, soft, juicy)? Which tool is best for peeling or grating your fruit safely?	<b>Vegetable Dips:</b> What are the different food groups found on the "Eatwell Plate"? How did you ensure your kitchen area stayed hygienic while preparing your dip?	<b>Super Salads:</b> How do the ingredients you selected contribute to a balanced and healthy diet? Which techniques (peeling, chopping, or grating) did you use to prepare your vegetables?	<b>Pizza:</b> How did you adapt a basic recipe to improve the taste or appearance of your pizza? Why is it important to understand where ingredients are grown or reared?	<b>Bread:</b> How do different substances in bread (like yeast or flour) affect the final product? Can you explain the safety guidelines you followed when using a heat source to bake?	<b>Seasonality Soup:</b> Why is seasonality an important factor when selecting ingredients for a recipe? How can you adapt this recipe to change its aroma or texture for a different audience?
<b>DT Skills</b>	What was the plan you made before you started making? How did you make your product? Why did you choose these specific resources and tools? Can you describe how it works?	What is your idea and what do you plan to do next? Why did you choose these specific tools and materials? How many different ways can you join these materials/components? What part of your work went well and can you explain why? How did you measure the materials needed for your model or structure? How would you describe the ingredients you are using today?	How can you prove that your design meets the set criteria? Why is this material the best choice for both its suitability and appearance? Which are the most appropriate tools and techniques for this specific task? How accurately can you measure, cut, and make holes? Can you describe how these food ingredients come together?	Can you explain your plan? What improvements would you suggest for your own designs? How would you evaluate your product based on both its purpose and appearance? In what ways have you improved your original design? How did you ensure you measured accurately? How did you persevere and adapt when your original ideas didn't work? What are the rules for being hygienic/safe when using food?	How did you come up with a range of ideas? What are the positive features and drawbacks of your plans? How will this product appeal to your specific target audience? How does the appearance and function of the finished product compare to your original criteria? How do you use this range of tools competently? How did making a prototype help you before the final version? How are you showing that you can be hygienic/safe in the kitchen?	How did market research inform your final plans and ideas? In what ways did you refine your plan as you worked? How does your design show that you have considered culture and society? How did you test and evaluate your products? How should these products be stored, and why? How did you manage to work within a budget? How does your product perform when evaluated against criteria?