

Year 5 DT Autumn

<p>Doodlers Bridges</p>	<ul style="list-style-type: none"> • Identify battery, bulb and switch and their function. • Explain that a series circuit is assembled in a loop • Describe motor as changes electrical energy to motion to rotate or spin different parts. • Remove & replace different parts of a Doodler • Explain changes made & effect had on Doodler's ability to draw scribbles (function) and appearance (form). • Develop design criteria with consideration for the target user, purpose of Doodler, a key function & the Doodler's form and final appearance (e.g. fun, bright, soft). • Create a functional Doodler that creates scribbles on paper with or without a switch. • Evaluate how effective a set of instructions are 	<ul style="list-style-type: none"> • Identify stronger and weaker shapes. • Recognise that supporting shapes can help increase the strength of a bridge, allowing it to hold more weight. • Identify beam, arch and truss bridges and describe their differences. • Use triangles to create simple truss bridges to support a weight. • Cut beams to the correct size, using a cutting mat. • Smooth down any rough cut edges with sandpaper. • Follow each stage of the truss bridge creation as instructed • Complete a bridge, with varying ranges of accuracy and finish, supported by the teacher. • Identify some areas for improvement, reinforcing their bridges as necessary.
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Spring

<p>Pop-up book Monitoring devices</p>	<p>Produce a suitable plan for each page of their book. Produce the structure of the book. Assemble components necessary structures/mechanisms. Hide mechanical elements with layers/spacers where needed. Use a range of mechanisms and structures to illustrate their story and make it interactive for the users. Use appropriate materials and captions to illustrate the story.</p>	<p>Describe what is meant by monitoring devices and provide an example. Explain briefly the development of thermometers Research a chosen animal to develop a list of design criteria Write a program that monitors the ambient temperature and alerts someone when the temperature moves from a specified range. Identify errors (bugs) in the code and ways to fix (debug) them. Build a variety of brick models to invent Micro:bit case, housing and stand ideas, evaluating the success of their favourite model. Explain key pros and cons of virtual modelling vs physical modelling. Recall & describe the name key tools used in Tinkercad (CAD) software.</p>
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Summer

<p>What could be healthier</p>	<p>Understand how beef gets from the farm to our plates. Present a poster with clear information/easy to read format. Contribute ideas as to what a 'healthy meal' means. Notice differences between different products and recipes. Recognise nutritional differences between two similar recipes and give some justification as to why this is. Amend a bolognese recipe with healthy adaptations. Follow a recipe to produce a healthy bolognese sauce. Design packaging to promote ingredients of the bolognese.</p>	
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