



# The T-RF- Design and Technology Progression



	F1 Nursery	F2 Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Designing</b>	<ul style="list-style-type: none"> <li>Use and experiment with various construction materials.</li> </ul>	<ul style="list-style-type: none"> <li>Choose construction materials for a purpose</li> <li>Talk about what they want to make.</li> </ul>	<ul style="list-style-type: none"> <li>Use own ideas to design something and describe how their own idea works.</li> <li>Design a product which moves.</li> <li>Explain to someone else how they want to make their product and make a simple plan before making.</li> </ul>	<ul style="list-style-type: none"> <li>Think of an idea and plan what to do next.</li> <li>Explain why they have chosen specific materials.</li> </ul>	<ul style="list-style-type: none"> <li>I can prove that a design meets a set criteria.</li> <li>I can design a product and make sure that it is aesthetically pleasing.</li> <li>I can choose a material for both its suitability and its appearance.</li> </ul>	<ul style="list-style-type: none"> <li>I can use ideas from other people when designing.</li> <li>I can produce a plan and explain it.</li> <li>I can persevere and adapt work when original ideas don't work.</li> <li>I can communicate ideas through annotated sketches and drawings.</li> </ul>	<ul style="list-style-type: none"> <li>I can come up with a range of ideas after collecting information from different sources.</li> <li>I can produce a detailed step-by-step plan.</li> <li>I can explain how a product will appeal to a specific audience.</li> <li>I can design a product containing pulleys and gears.</li> </ul>	<ul style="list-style-type: none"> <li>I can use market research to inform plans and ideas.</li> <li>I can follow and refine original plans.</li> <li>I can justify planning in a convincing way.</li> <li>I can show that culture and society is considered in plans and designs.</li> </ul>
<b>Making</b>	<ul style="list-style-type: none"> <li>Begin to construct stacking blocks vertically and horizontally, making enclosures and creating spaces.</li> <li>Join construction pieces together to build and balance</li> </ul>	<ul style="list-style-type: none"> <li>Select tools and use techniques needed to shape, assemble and join materials.</li> <li>Safely use and explore a variety of materials, tools and techniques experimenting with design and function.</li> </ul>	<ul style="list-style-type: none"> <li>Use own ideas to make something.</li> <li>Make a product which moves.</li> <li>Choose appropriate resources and tools.</li> </ul>	<ul style="list-style-type: none"> <li>Choose tools and materials and explain why they have chosen them.</li> <li>Join materials and components in different ways.</li> <li>Measure materials to use in a model or structure.</li> </ul>	<ul style="list-style-type: none"> <li>I can follow a step-by-step plan choosing the right equipment and tools.</li> <li>I can select the most appropriate tools and materials.</li> <li>I can work accurately to measure, make cuts and make holes.</li> </ul>	<ul style="list-style-type: none"> <li>I know which tools to use for a particular task and show knowledge of handling the tool.</li> <li>I know which materials is likely to give the best outcome.</li> <li>I can measure accurately.</li> <li>I can make a product that uses electrical and mechanical components.</li> </ul>	<ul style="list-style-type: none"> <li>I can use a range of tools and equipment competently.</li> <li>I can use a variety of methods to create my design Eg discussion, annotated sketches, exploded diagrams and make a prototype before making the final version.</li> <li>I can make a product that relies on pulleys, gears and cams.</li> </ul>	<ul style="list-style-type: none"> <li>I know which tool to use for a specific practical task.</li> <li>I know how to use a range of tools correctly and safely.</li> <li>I know what each tool is used for.</li> <li>I can explain why a specific tool is best for a specific action.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Talk about what I like about my work.</li> </ul>	<ul style="list-style-type: none"> <li>Share creations explaining the processes used.</li> </ul>	<ul style="list-style-type: none"> <li>Describe how something works.</li> <li>Explain what works well in the model they have made.</li> </ul>	<ul style="list-style-type: none"> <li>Explain what went well with their work and how they would make it better next time.</li> </ul>	<ul style="list-style-type: none"> <li>I can explain how to improve a finished model.</li> <li>I understand why a model has or has not been successful.</li> </ul>	<ul style="list-style-type: none"> <li>I can evaluate and suggest improvements for a design.</li> <li>I can evaluate products for their appearance and design.</li> <li>I can explain how the original design has been improved.</li> <li>I can present a product in an interesting way.</li> </ul>	<ul style="list-style-type: none"> <li>I can suggest alternative plans outlining the positive features and drawbacks.</li> <li>I can evaluate appearance and function against the original criteria.</li> </ul>	<ul style="list-style-type: none"> <li>I know how to test and evaluate designed products.</li> <li>I can explain how products should be stored and justify my reasons.</li> <li>I can evaluate a product against a clear criteria.</li> </ul>

<b>Technical Knowledge</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Understand that different materials can be combined to create new designs and effects.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Make their own model.</li> <li>• Use levers and sliders in a product.</li> </ul>	<ul style="list-style-type: none"> <li>• Make a model and make it stronger and more stable.</li> <li>• Use wheels and axles, when appropriate to do so.</li> </ul>	<ul style="list-style-type: none"> <li>• I know how to strengthen a product by stiffening or reinforcing a part.</li> <li>• I can use a simple IT program within the design.</li> </ul>	<ul style="list-style-type: none"> <li>• I can link scientific knowledge by using switches, lights or buzzers.</li> <li>• I can use electrical systems to enhance the product.</li> <li>• I can use IT to add to the quality of the finished product Eg nutritional information on labels.</li> </ul>	<ul style="list-style-type: none"> <li>• I can link scientific knowledge to the design by using pulleys, gears and cams.</li> <li>• I can use a more complex IT program to enhance the quality of the product produced.</li> </ul>	<ul style="list-style-type: none"> <li>• I can use electrical systems correctly and accurately to enhance a given product.</li> <li>• I know which IT product would further enhance a given product.</li> <li>• I can use my knowledge to improve a finished product by reinforcing.</li> </ul>
<b>Food technology</b>	<ul style="list-style-type: none"> <li>• Use different tools when baking.</li> <li>• Know that I must wash my hands before cooking.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Use tools for baking correctly.</li> <li>• Know that I must wash my hands before cooking.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Cut food safely.</li> <li>• Know basic hygiene rules</li> <li>• Know what a balanced diet is.</li> </ul>	<ul style="list-style-type: none"> <li>• Weigh ingredients to use in a recipe.</li> <li>• Describe the ingredients use when making a dish or cake.</li> <li>• I know what a balanced diet is and how to stay healthy.</li> </ul>	<ul style="list-style-type: none"> <li>• I can describe how food ingredients come together.</li> <li>• I can weigh out ingredients and follow a recipe.</li> <li>• I can talk about which food is healthy and which is not.</li> <li>• I know when food is ready to be harvested.</li> </ul>	<ul style="list-style-type: none"> <li>• I know how to be both hygienic and safe when using food.</li> <li>• I can bring a creative element to the food product being designed.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• I can be both hygienic and safe in a kitchen.</li> <li>• I know how to prepare a meal by collecting the correct ingredients.</li> <li>• I understand that different foods are harvested at different times.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• I can work within a budget to create a meal or menu Eg cross curricular Maths.</li> <li>•</li> </ul>

<b>Vocabulary</b>			Lever, sliders, design, evaluate, join, cut and shape, materials, finishing, tools.	Construct, Template, Design, Evaluate, Ingredients, Components, Joining, Mechanism, Finishing, Materials, Axle, Levers, Instructions				
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