

What are the key features of 'knowledge-rich' assessment for DT?

Subject	Features
Design Technology	<ul style="list-style-type: none">❑ At key stage 1 and 2, the sticky knowledge takes full account of the national curriculum's main characteristics of:<ul style="list-style-type: none">❑ Designing❑ Making❑ Evaluating❑ Using technical knowledge❑ Food technology
	<ul style="list-style-type: none">❑ There are relatively few assessment statements as these knowledge statements should be what pupils retain for ever. In other words, this knowledge is within their long-term memory and will be retained.
	<ul style="list-style-type: none">❑ When considering pupils' improvement in subject specific vocabulary, provide pupils with a vocabulary mat which contains all words used for design technology for their age group.

DT: Key Stage 1

	Designing	Making	Evaluating	Technical Knowledge	Food Technology
	<p><i>Design - purposeful, functional, appealing products for themselves and other users based on design criteria</i></p> <p><i>Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</i></p>	<p><i>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></p> <p><i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></p>	<p><i>explore and evaluate a range of existing products</i></p> <p><i>evaluate their ideas and products against design criteria</i></p>	<p><i>build structures, exploring how they can be made stronger, stiffer and more stable</i></p> <p><i>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i></p>	<p><i>use the basic principles of a healthy and varied diet to prepare dishes</i></p> <p><i>understand where food comes from</i></p>
Year 1	<ul style="list-style-type: none"> • use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making 	<ul style="list-style-type: none"> • use own ideas to make something • make a product which moves • choose appropriate resources and tools 	<ul style="list-style-type: none"> • describe how something works • explain what works well and not so well in the model they have made 	<ul style="list-style-type: none"> • make their own model stronger 	<ul style="list-style-type: none"> • cut food safely
Year 2	<ul style="list-style-type: none"> • think of an idea and plan what to do next • explain why they have chosen specific textiles 	<ul style="list-style-type: none"> • choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure 	<ul style="list-style-type: none"> • explain what went well with their work 	<ul style="list-style-type: none"> • make a model stronger and more stable • use wheels and axles, when appropriate to do so 	<ul style="list-style-type: none"> • weigh ingredients to use in a recipe • describe the ingredients used when making a dish or cake

DT: Key Stage 2

	Designing	Making	Evaluating	Technical Knowledge	Food Technology
	<p>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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	<p>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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<p>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</p> <p>understand how key events and individuals in design and technology have helped shape the world</p>	<p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>apply their understanding of computing to program, monitor and control their products.</p>	<p>understand and apply the principles of a healthy and varied diet</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</p>
Year 3	<ul style="list-style-type: none"> • prove that a design meets a set criteria. • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance 	<ul style="list-style-type: none"> • follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes 	<ul style="list-style-type: none"> • explain how to improve a finished model • know why a model has, or has not, been successful 	<ul style="list-style-type: none"> • know how to strengthen a product by stiffening a given part or reinforce a part of the structure • use a simple IT program within the design 	<ul style="list-style-type: none"> • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting
Year 4	<ul style="list-style-type: none"> • use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated 	<ul style="list-style-type: none"> • know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately 	<ul style="list-style-type: none"> • evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way 	<ul style="list-style-type: none"> • links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product • use IT, where appropriate, to add to the quality of the product 	<ul style="list-style-type: none"> • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed

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Year 5	<ul style="list-style-type: none"> come up with a range of ideas after collecting information from different sources produce a detailed, step-by-step plan explain how a product will appeal to a specific audience design a product that requires pulleys or gears 	<ul style="list-style-type: none"> use a range of tools and equipment competently make a prototype before making a final version make a product that relies on pulleys or gears 	<ul style="list-style-type: none"> suggest alternative plans; outlining the positive features and draw backs evaluate appearance and function against original criteria 	<ul style="list-style-type: none"> links scientific knowledge to design by using pulleys or gears uses more complex IT program to help enhance the quality of the product produced 	<ul style="list-style-type: none"> be both hygienic and safe in the kitchen know how to prepare a meal by collecting the ingredients in the first place know which season various foods are available for harvesting 	
	Year 6	<ul style="list-style-type: none"> use market research to inform plans and ideas. follow and refine original plans justify planning in a convincing way show that culture and society is considered in plans and designs 	<ul style="list-style-type: none"> know which tool to use for a specific practical task know how to use any tool correctly and safely know what each tool is used for explain why a specific tool is best for a specific action 	<ul style="list-style-type: none"> know how to test and evaluate designed products explain how products should be stored and give reasons evaluate product against clear criteria 	<ul style="list-style-type: none"> use electrical systems correctly and accurately to enhance a given product know which IT product would further enhance a specific product use knowledge to improve a made product by strengthening, stiffening or reinforcing 	<ul style="list-style-type: none"> explain how food ingredients should be stored and give reasons work within a budget to create a meal understand the difference between a savoury and sweet dish