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

Subject	Features
Design Technology	❑ At key stage 1 and 2, the sticky knowledge takes full account of the national curriculum's main characteristics of: ❑ Designing ❑ Making ❑ Evaluating ❑ Using technical knowledge ❑ Food technology
	❑ 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.
	❑ 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
	Design - purposeful, functional, appealing products for themselves and other users based on design criteria *Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups 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*	*explore and evaluate a range of existing products* *evaluate their ideas and products against design criteria*	*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* *understand where food comes from*
Year 1	• use own ideas to design something **playgrounds, plan 3/4, autumn Flying kites, plan 1/2/3, spring Teddybears picnic, plan 1 summer** • describe how their own idea works **playgrounds, plan 3/4, autumn** • design a product which moves **playgrounds, plan 2/3/4, autumn** • explain to someone else how they want to make their product **playgrounds, plan 4, autumn Flying kites, plan 2/3/4, spring** • make a simple plan before making **playgrounds, plan 1, autumn Flying kites, plan 1/2/3, spring**	• use own ideas to make something **playgrounds, plan 4, autumn Flying kites, plan 1/2/3, spring** • make a product which moves **playgrounds, plan 2, autumn** • choose appropriate resources and tools **playgrounds, plan 2/5, autumn Flying kites, plan 1/2/3, spring**	• describe how something works **playgrounds, plan 4, autumn** • explain what works well and not so well in the model they have made **playgrounds, plan 5, autumn Flying kites, plan 2/3/4, spring**	• make their own model stronger **Flying kites, plan 2/3/4, spring playgrounds, plan 2/5, autumn**	• cut food safely **Teddy Bears picnic, plan 2/3/4, summer**
Year 2	• think of an idea and plan what to do next **Puppets, plan 4, spring** • explain why they have chosen specific textiles **Puppets, plan 2, spring**	• choose tools and materials and explain why they have chosen them **Puppets, plan 2/3/4, spring** • join materials and components in different ways **Puppets, plan 2, spring** • measure materials to use in a model or structure	• explain what went well with their work **Puppets, plan 6, spring**	• make a model stronger and more stable • use wheels and axles, when appropriate to do so	• weigh ingredients to use in a recipe **Seaside snacks, plan 4/5, summer** • describe the ingredients used when making a dish or cake **Seaside snacks, plan 4/5/6, summer**

DT: Key Stage 2

	Designing	Making	Evaluating	Technical Knowledge	Food Technology
	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*	*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*	*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 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.*	*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*
Year 3	• prove that a design meets a set criteria. **Moving monsters, plan 2/3, autumn** • design a product and make sure that it looks attractive **Sandwich snacks, plan 4, spring** • choose a material for both its suitability and its appearance **Moving monsters, plan 2/3, autumn Packaging, plan 2/3, summer packaging, plan 4, summer**	• follow a step-by-step plan, choosing the right equipment and materials **Moving monsters, plan 2/3, autumn Packaging, plan 2, summer** • select the most appropriate tools and techniques for a given task **Moving monsters, plan 2/3, autumn** • make a product which uses both electrical and mechanical components **Moving monsters, plan 5, autumn** • work accurately to measure, make cuts and make holes **Moving monsters, plan 4/5, autumn Packaging, plan 2, summer**	• explain how to improve a finished model **Moving monsters, plan 4/5, autumn Sandwich snacks, plan 5, spring packaging, plan 6, summer** • know why a model has or has not been successful **Moving monsters, plan 5, autumn packaging, plan 6, summer greenhouses, plan 6, spring**	• know how to strengthen a product by stiffening a given part or reinforce a part of the structure **Moving monsters, plan 4, autumn** • use a simple IT program within the design **packaging, plan ¾, summer**	• describe how food ingredients come together **Sandwich snacks, plan 2, spring** • weigh out ingredients and follow a given recipe to create a dish • can talk about which food is healthy and which food is not **Sandwich snacks, plan 3/4, spring** • know when food is ready for harvesting
Year 4	• use ideas from other people when designing **storybooks, plan3, autumn** • produce a plan and explain it **storybooks, plan1, autumn Greenhouses, plan ½, spring** • persevere and adapt work when original ideas do not work **storybooks, plan2/3, autumn** • communicate ideas in a range of ways, including by sketches and drawings which are annotated **storybooks, plan1/3, autumn greenhouses, plan3/4, spring**	• know which tools to use for a particular task and show **storybooks, plan2, autumn** • knowledge of handling the tool **storybooks, plan2, autumn** • know which material is likely to give the best outcome **greenhouses, plan3, spring** • measure accurately **storybooks, plan2/4, autumn**	• evaluate and suggest improvements for design **storybooks, plan6, autumn** • evaluate products for both their purpose and appearance **storybooks, plan6, autumn** • explain how the original design has been improved **greenhouses, plan2/3, spring** • present a product in an interesting way **storybooks, plan6, autumn**	• links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product **seasonal food, plan4\5, summer** • use IT where appropriate to add to the quality of the product	• know how to be both hygienic and safe when using food **seasonal food, plan1/2, summer** • bring a creative element to the food product being designed **seasonal food, plan 3/5, summer**

DT: Key Stage 2

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	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*	*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*	*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 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.*	*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*
Year 5	• come up with a range of ideas after collecting information from different sources **biscuits, plan 1, spring moving toys, plan 3/4, autumn** produce a detailed, step-by-step plan**moving toys, plan 3/4, autumn** • explain how a product will appeal to a specific audience **moving toys, plan 3/4, autumn Faiground, plan 1, summer** • design a product that requires pulleys or gears **moving toys, plan 3/4, autumn**	• use a range of tools and equipment competently **moving toys, plan 2/3, autumn** • make a prototype before making a final version **moving toys, plan 4, autumn** • make a product that relies on pulleys or gears **moving toys, plan 4/5, autumn**	• suggest alternative plans; outlining the positive features and draw backs **biscuits, plan 5, spring** • evaluate appearance and function against original criteria **biscuits, plan 5, spring Fairgrounds, plan 6, summer**	• links scientific knowledge to design by using pulleys or gears **Fairground, plan 2/3, summer** • uses more complex IT program to help enhance the quality of the product produced	• be both hygienic and safe in the kitchen **biscuits, plan 2/3/4, spring** • know how to prepare a meal by collecting the ingredients in the first place **biscuits, plan 3/4, spring** • know which season various foods are available for harvesting
Year 6	• use market research to inform plans and ideas. **Funky Furnishings plan ½, Autumn** • follow and refine original plans **Funky Furnishings, plan 2, Autumn** • justify planning in a convincing way **Funky Furnishings, plan 5, Autumn** • show that culture and society is considered in plans and designs **Building bridges, plan 5/6, summer**	• know which tool to use for a specific practical task **Funky Furnishings, plan 3, Autumn** • know how to use any tool correctly and safely **Funky Furnishings, plan 3, Autumn** • know what each tool is used for **Funky Furnishings, plan 3/4, Autumn** • explain why a specific tool is best for a specific action **Funky Furnishings,plan 6, Autumn**	• know how to test and evaluate designed products **Building bridges, plan 1, summer** • explain how products should be stored and give reasons • evaluate product against clear criteria **burgers, plan 5/6, spring**	• use electrical systems correctly and accurately to enhance a given product • know which IT product would further enhance a specific product **Building bridges, plan 5, summer** • use knowledge to improve a made product by strengthening, stiffening or reinforcing **Building bridges, plan 5, summer**	• explain how food ingredients should be stored and give reasons **burgers, plan 4, Spring** • work within a budget to create a meal **burgers, plan 3/4/5, Spring** • understand the difference between a savoury and sweet dish **burgers, plan 3/4, Spring**