

Design and Technology

<u>Year EY</u>	Making/Textiles	Evaluating	Technical	Food Technology	Vocabulary
Designing			Knowledge		
 Plan a model or construction either orally or drawing. To explore different designs and ideas through model making and construction. To draw and label models made, including the materials used. To talk about why they have chosen certain materials for their models. 		 Talk about the materials used in their design. To talk about what worked well? To talk about what didn't work well. To make adaptations to creations and talk about why. 	 To create a model with moving parts. To create models choosing materials for a purpose for example: Plastic for a waterproof boat. 	 Follow instructions for a simple recipe. To follow simple practices for hygiene- handwashing cleaning equipment. 	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder

Year 1	Making/Textiles	Evaluating	Technical	Food Technology	Vocabulary
Designing			Knowledge		
 Can they talk with others about how they want to construct their product? Can they select appropriate resources and tools for their building projects? Can they make simple plans before making objects, e.g. drawings, arranging pieces of construction before building? 	 Can they describe how different textiles feel? Can they make a product from textiles by gluing? Can they make a product which moves? Can they cut materials using scissors? Can they describe the materials using different words? Can they say why they have chosen moving parts? Is their work tidy? 	 Can they describe how something works? Explain what works well and not so well in the model they have made 	 Can they make their own model stronger? Can they make a structure/model using different materials? 	 Can they cut food safely? Can they describe the texture of foods? Do they wash their hands and make sure that surfaces are clean? Can they think of interesting ways of decorating food they have made, eg, cakes? 	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder

Year 2	Making/Textiles	Evaluating	Technical	Food Technology	Vocabulary
Designing			Knowledge		
 Can they think of ideas and plan what to do next? Can they describe their design by using pictures, diagrams, models and words? Can they add some kind of design to their product? Can they develop their own ideas from initial starting points? 	 Can they join things (materials/components) together in different ways? Can they join materials together as part of a moving product? Can they choose the best tools and materials? Can they give a reason why these are best? Can they measure Materials/textiles to use in a model or structure? Can they join textiles together to make something? Can they explain why they chose a certain textile? 	 Can they explain what went well with their work? If they did it again, can they explain what they would improve? 	 Can they make a model stronger and more stable. Can they use joining, folding or rolling to make it stronger? Can they make sensible choices as to which material to use for their constructions? Can they incorporate some type of movement into models? Can they use wheels and axles, when appropriate to do so? 	 Can they weigh ingredients to use in a recipe? Can they describe the properties of the ingredients they are using? Can they explain what it means to be hygienic? Are they hygienic in the kitchen? 	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder

<u>Year 3</u>			Vocabulary	
Designing				
 Can they show that their design meets a set criteria? Can they put together a step-by-step plan which shows the order and also what equipment and tools they need? Can they describe their design using an accurately labelled sketch and words? Can they choose a material for both its suitability and its appearance? How realistic is their plan? 			evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, appealing, planning, annotated sketch, sensory evaluations, shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.	
Technical Knowledge	Evaluating	Food Technology	Materials	
 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 	 Can they explain what they changed which made their design even better? Do they know why a model has, or has not, been successful 	 Can they choose the right ingredients for a product? Can they use equipment safely? Can they make sure that their product looks attractive? Can they describe how their combined ingredients come together? Can they weigh out ingredients and follow a given recipe to create a dish? Can they talk about which food is healthy and which food is not? Do they know when food is ready for harvesting? Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product? 	Textiles- Can they join textiles of different types in different ways?- Can they choose textiles both for their appearance and also qualities?Electrical and mechanical components- Do they select the most appropriate tools and techniques to use for a given task?- Can they make a product which uses both electrical and mechanical components?- Can they use a simple circuit?- Can they use a number of components?Stiff and flexible sheet materials- Do they use the most appropriate materials?- Can they use a range of techniques to shape and mould?- Do they use finishing techniques?	

Year 4			Vocabulary
Designing			
 Can they come up with at least one idea about how to create their product? Do they take account of the ideas of others when designing? Can they produce a plan and explain it to others? Can they tell if their finished product is going to be good quality? Are they conscience of the need to produce something that will be liked by others? 			evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, appealing, planning, annotated sketch, sensory evaluations, shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.
Technical Knowledge	Evaluating	Food Technology	Materials
 Can they show a good level of expertise when using a range of tools and equipment? Do they work at their product even though their original idea might not have worked? 	 Have they thought of how they will check if their design is successful? Can they suggest some improvements and say what was good and not so good about their original design? Can they evaluate their product, thinking of both appearance and the way it works? Do they take time to consider how they could have made their idea better? 	 Do they know what to do to be hygienic and safe? Have they thought what they can do to present their product in an interesting way? 	 Textiles Do they think what the user would want when choosing textiles? Have they thought about how to make their product strong? Can they devise a template? Can they explain how to join things in a different way? Electrical and mechanical components Can they add things to their circuits? How have they altered their product after checking it? Are they confident about trying out new and different ideas? Stiff and flexible sheet materials Can they measure carefully so as to make sure they have not made mistakes? How have they attempted to make their product strong? Mouldable materials Can they use a range of advanced techniques to shape and mould? Do they use finishing techniques, showing an awareness of audience?

Year 5			Vocabulary
Designing			
 Can they come up with a range of ideas after they have collected information? Do they take a user's view into account when designing? Can they produce a detailed step by-step plan? Can they suggest some alternative plans and say what the good points and drawbacks are about each? Can they explain why their finished product is going to be of good quality? Can they explain how their product will appeal to the audience? 			function, innovative, design specification, design brief, user, purpose, prototype, annotated sketch, research, functional, mock-up, prototype frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent.
Technical Knowledge	Evaluating	Food Technology	Materials
 Can they use a range of tools and equipment expertly? Do they persevere through different stages of the making process? 	 Do they keep checking that their design is the best it can be? Do they check whether anything could be improved? Can they evaluate appearance and function against the original criteria? 	 Can they describe what they do to be both hygienic and safe? How have they presented their product well? 	 Textiles Do they think what the user would want when choosing textiles? How have they made their product attractive and strong? Can they make up a prototype first? Can they use a range of joining techniques? Electrical and mechanical components Can they incorporate a switch into their product? Can they incorporate hydraulics and pneumatics? Stiff and flexible sheet materials Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose? Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose? Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose? Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose?

Year 6			Vocabulary
Designing			
 Can they use a range of information to inform their design? Can they use market research to inform plans? Can they work within constraints? Can they follow and refine their plan if necessary? Can they justify their plan to someone else? Do they consider culture and society in their designs? 			function, innovative, design specification, design brief, user, purpose, prototype, annotated sketch, research, functional, mock-up, prototype frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent.
Technical Knowledge	Evaluating	Food Technology	Materials
 Can they use tools and materials precisely? Do they change the way they are working if needed? 	 How well do they test and evaluate their final product? Is it fit for purpose? What would improve it? Would different resources have improved their product? Would they need more or different information to make it even better? Does their product meet all design criteria? Did they consider the use of the product when selecting materials? 	 Can they explain how their product should be stored with reasons? Can they set out to grow their own products with a view to making a salad, taking account of time required to grow different foods? 	 Textiles Have they thought about how their product could be sold? Have they given considered thought about what would improve their product even more? Electrical and mechanical components Can they use different kinds of circuit in their product? Can they think of ways in which adding a circuit would improve their product? Stiff and flexible sheet materials Can they justify why they selected specific materials? How have they ensured that their work is precise and accurate? Can they hide joints so as to improve the look of their product? Mouldable materials Can they justify why the chosen material was the best for the task? Can they justify design in relation to the audience?