



Design and Technology end of year milestones 2017-2018



	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluate	<p>Evaluate ideas for a design based on simple design criteria.</p> <p>Evaluate a product based on simple design criteria.</p> <p>Explore and say what they like and dislike about a range products, explore the work of kite designer Karl Longbottom.</p>	<p>Explore and say what they like and dislike about a range of products, giving reasons, explore the 'Giants' made by the Royal de Luxe group.</p> <p>Evaluate ideas for a design based on their own design criteria.</p> <p>Evaluate a product based on their own design criteria.</p>	<p>Investigate a range of products.</p> <p>Analyse a range of products.</p> <p>Evaluate ideas against their own design criteria.</p> <p>Understand how key individuals have helped shaped the world such as Nipa Doshi and Jonathon Levien.</p>	<p>Investigate a wider range of products.</p> <p>Analyse a wider range of products.</p> <p>Evaluate a product their own against design criteria.</p> <p>Explore Faraday torches and how Michael Faraday's innovate product affected the world.</p>	<p>Investigate a range of gears, levers and pulleys using K'nex.</p> <p>Investigate a wide range of products.</p> <p>Analyse a wide range of products.</p> <p>Consider a friend's views to improve work.</p> <p>Understand how key events in food manufacturing in design technology have helped shape the world.</p>	<p>Investigate the functions and design of a wide range of products.</p> <p>Analyse the design and technology of a wide range of products.</p> <p>Consider a friend's views to improve work.</p> <p>Learn about the story of MacDonalds and how key events in food manufacturing in design technology have helped shape the world.</p>
Design	<p>Generate ideas for a design through talking.</p> <p>Develop a design idea through drawing.</p> <p>Design a functional windmill based on design criteria.</p> <p>Design a purposeful kite for someone else based on design criteria.</p> <p>To model a design using a template.</p> <p>To design an appealing picnic product for someone else based on design criteria.</p>	<p>Design a purposeful product for someone else based on design criteria.</p> <p>Model a design using a template and a mock-up.</p> <p>Design an appealing pizza for someone else based on design criteria.</p> <p>Design a functional puppet based on design criteria.</p> <p>Generate ideas for a design through talking.</p> <p>Develop a design and edit ideas through drawing.</p> <p>Communicate design ideas in a blog.</p>	<p>Design an innovative lampshade.</p> <p>Develop ideas through annotated sketches.</p> <p>Design an appealing healthy dip.</p> <p>Select and use ingredients according to their taste.</p> <p>Design a functional photo frame.</p> <p>Develop and write own design criteria.</p> <p>Generate ideas through discussion with adults and peers.</p>	<p>Develop ideas through cross-sectional diagrams.</p> <p>Communicate ideas through exploded diagrams.</p> <p>Design an innovative torch.</p> <p>Design an appealing savoury dish.</p> <p>Select and use ingredients according to their taste.</p> <p>Design a functional pencil case.</p> <p>Select and use textile materials according to their aesthetic properties.</p> <p>Develop and write own design criteria using DT specific language.</p>	<p>Design an appealing bread product.</p> <p>Select and use ingredients according to their taste and how well they work together.</p> <p>Design an innovative cams toy.</p> <p>Design a functional soft furnishing.</p> <p>Select and use textile materials according to their aesthetic properties and by assessing how suitable they are for purpose.</p> <p>Develop and write own design criteria using DT specific language, showing an awareness of target consumer.</p>	<p>Design an innovative burglar alarm.</p> <p>Design an appealing burger.</p> <p>Select and use ingredients according to their taste, health benefits and knowledge of consumer.</p> <p>Design a functional textiles product.</p> <p>Develop and write own design criteria using DT specific language, showing an awareness of target consumer from collected evidence.</p> <p>Use research to develop design criteria for a product aimed at a group of people.</p>
Make	Use paper, balsa wood and card board.	Use felt and hessian. Use heavy cardboard,	Select and use components with greater	Select and use construction materials	Select from and accurately use a range	Communicate ideas through prototypes.

	<p>Use scissors, knives and cookie cutters for cutting and shaping, sometimes with support.</p> <p>Select from and use a range of tools for joining - glue, tape, wire, needle and thread, sometimes with support.</p> <p>Select from and use a range of tools for finishing - crayons, paint brushes, sometimes with support.</p> <p>Use cotton and synthetic materials.</p>	<p>wooden and plastic wheels and wooden dowels.</p> <p>Make a stable moving vehicle.</p> <p>Select from and use a range of tools for cutting - scissors, saws, knives and graters, often independently.</p> <p>Select from and use a range of tools for joining - glue, tape and string, and needles and thread, often independently.</p> <p>Select from and use a range of tools for shaping - scissors, rolling pins, knives, often independently.</p> <p>Select from and use a range of tools for finishing - crayons, paintbrushes, graters often independently.</p>	<p>autonomy and awareness of purpose.</p> <p>Select and use textile materials according to their aesthetic properties.</p> <p>Select from and accurately use a range of tools for cutting - scissors, vegetable knives, craft knives and blenders, showing good levels of independence.</p> <p>Select from and accurately use a range of tools for joining - hot glue, tape needle, and thread, showing good levels of independence.</p> <p>Select from and accurately use a range of tools for shaping - scissors and knives, showing good levels of independence.</p> <p>Select from and accurately use a range of tools for finishing - crayons, paint brushes, tie dye, felting, embroidery hoops, embroidery needles, with some independence.</p>	<p>based on their aesthetic properties and functionality.</p> <p>Select from and accurately use a range of tools for cutting - scissors, wire cutters, vegetable knives, craft knives, hacksaw, showing an awareness of how to stay safe.</p> <p>Select from and accurately use a range of tools for joining - hot glue, tape, wire, electrical tape, needle and thread, showing an awareness of how to stay safe.</p> <p>Select from and accurately use a range of tools for shaping - scissors, wire cutters, knives, showing an awareness of how to stay safe.</p> <p>Select from and accurately use a range of tools for finishing - crayons, paint brushes, embroidery hoops, embroidery needles, showing an awareness of the aesthetic properties of a finished product.</p>	<p>of tools for cutting - scissors, vegetable knives, craft knives, hacksaw, can articulate how to use these safely.</p> <p>Select from and accurately use a range of tools for joining - glue, tape, needle, and thread, can articulate how to use these safely.</p> <p>Select from and accurately use a range of tools for shaping - scissors, loaf tins, knives, can articulate how to use these safely.</p> <p>Select from and accurately use a range of tools for finishing - crayons, paint brushes, embroidery hoops, embroidery needles, showing awareness of the aesthetic properties of a finished product and who it will appeal to.</p> <p>Select and use K'nex components.</p> <p>Select and use cams, cardboard, and dowelling based on their functional properties.</p>	<p>Select and use construction materials and electrical components based on their functional properties.</p> <p>Develop ideas through pattern pieces.</p> <p>Select and use a wide range of textile materials according to their aesthetic properties.</p> <p>Select from, and safely and accurately use a range of tools for cutting - scissors, wire cutters, vegetable knives, craft knives, hacksaw.</p> <p>Select from, and safely and accurately use a range of tools for joining - glue, tape, wire, needle, and thread.</p> <p>Select from, and safely and accurately use a range of tools for shaping - scissors, wire cutters, knives.</p> <p>Select from and accurately use a range of tools for finishing - crayons, paint brushes, embroidery hoops, embroidery needles, using these tools selectively to ensure an attractive finished product.</p>
Technical Knowledge	<p>Reinforce a structure to make it stronger and stiffer.</p>	<p>Use wheels and axles on a moving vehicle.</p>	<p>Reinforce more complex structures to make them stable.</p>	<p>Understand use electrical components in products (batteries, bulbs, switches).</p>	<p>Understand and use mechanical systems in a product.</p> <p>Stiffen complex structures with moving components.</p>	<p>Understand and use electrical components in a product (batteries, buzzers, self-constructed switches).</p> <p>Reinforce and strengthen textile products with</p>

						Wonder Web and a strong stitch. Develop ideas through Computer Aided Design.
Cooking and Nutrition	Use the basic principles of a healthy and varied diet when preparing a dish. Know where different vegetables come from. Use ingredients.	Use ingredients. Use and talk about the basic principles of a healthy diet when preparing a dish. Know where different dairy and meat products come from.	Understand and apply the principals of a healthy and varied diet when preparing a snack. Prepare a cold savoury dish using a range of techniques. Understand seasonality and have designed a product based on what herbs are available. Help grow some of the herbs that will be used. Understand how some foods have been processed (oil manufacturing).	Understand and apply the principals of a healthy and varied diet when preparing a meal. Prepare a hot savoury dish using a range of techniques. Cook a savoury dish using a range of techniques. Understand seasonality and design a product based on what vegetables are available. Help grow some of the vegetables used in a design. Understand how some of the foods used have been reared and processed.	Understand and apply the principals of a balanced diet when baking savoury bread. Prepare a dish using a range of techniques. Cook a dish using a range of techniques. Understand seasonality and preserving and have designed a product based on what is available. Understand how some of the ingredients in a product have been processed (flour manufacturing).	Understand and apply the principals of a balanced diet when preparing a meal for someone else. Apply the principals of a healthy diet. Prepare a savoury dish using a range of techniques. Cook a savoury dish using a range of techniques. Understand seasonality and design a product based on what meat products are available. Help to grow some of the vegetables used in a product. Understand how some of the ingredients used in a product have been processed (meat).
Key Vocabulary	job strong stiff cotton wood card paper healthy diet vegetables ingredients	evaluate purpose function cardboard dowels axel wheel sew healthy diet meat dairy	evaluate function investigate innovative appealing attractive reinforce stable base varied diet savoury	evaluate investigate innovative appealing cross section aesthetic electrical components seasonality processed varied diet safely	evaluate innovative appealing aesthetic cams mechanical components seasonality processed varied diet safely	evaluate innovative appealing aesthetic CAD reinforce electrical components seasonality processed varied diet consumer