D&T Intent at Barnby Road

At Barnby Road we will ensure our Design and Technology has a purposeful, functional and appealing perspective that engages and inspires children to develop a creative passion for designing and making. Our Design and technology content broadly follows the National Curriculum and is taught chronologically where the children will build on skills developed in early years. Children will be taught to design, make, evaluate and use technical knowledge which will shape them to become resourceful, resilient and respectful critical thinkers.

Design and Technology at Barnby Road will ensure that pupils make progress through each year group, acquiring and applying key knowledge and skills, so that they at least meet the agreed age expectations in the subject and become life long learners with a passion for designing, making and evaluating.

D&T Curriculum Progression

Aspect	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Developing, planning and communicating ideas	Develop their own ideas and then decide which materials to use to express them.	Know how to use pictures and words to plan. Know some ideas of their own. Know what they want to do.	Know how to describe their design by using pictures, diagrams, models and words. Know how to think of ideas and plan what to do next. Know how to choose the best tools and materials. Give a reason why these are best.	Know how to put together a step-by-step plan which shows the order and also what equipment and tools they need. Know how to show that their design meets a range of requirements. Know how to describe their design using an accurately labelled sketch and words. Know how to make a realistic plan.	Know how to take account of the ideas of others when designing. Know how to come up with at least one idea about how to create their product. Know how to produce a plan and explain it to others. Know how to suggest some improvements and say what was good and not so good about their original design.	Know how to take a user's view into account when designing. Know how to come up with a range of ideas after they have collected information. Know how to produce a detailed step-by-step plan. Know how to suggest some alternative plans and say what the good points and drawbacks are about each.	Know how to use a range of information to inform their design. Know how to use market research to inform plans. Know how to work within constraints. Know how to follow and refine their plan if necessary. Know how to justify their plan to someone else. Know how to consider culture and society in their designs.
Working with tools, equipment, materials and components to make quality products	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Safely cut along a line and around a shape, turning the	Know which tools they are using. Know how to explain what they are making.	Know how to join things (materials/ components) together in different ways.	Know how to use equipment and tools accurately. Know how to select the most appropriate tools and techniques to use for a given task.	Know how to show a good level of expertise when selecting and using a range of tools and equipment. Know if their finished product is going to be good quality.	Know how to use a range of tools and equipment expertly. Know and explain why their finished product is going to be of good quality. Know and explain how their product	Know how to use tools and materials precisely. Know how to change the way they are working if needed.

	paper when needed.				Know they need to produce something that will be liked by others.	will appeal to the audience.	
Evaluating processes and products	Return to and build on their previous learning, refining ideas and developing their ability to represent them.	Know how to talk about their own work. Know how to describe how something works. Know how to talk about things that other people have done.	Know how to describe what went well with their work. Know what would they want to improve, if they did it again.	Know how to make a change to make their design even better.	Know how to evaluate their product, thinking of both appearance and the way it works. Know how they will check if their design is successful. Begin to know how they can improve their original design.	Know how to evaluate appearance and function against the original criteria. Know how to keep checking that their design is the best it can be. Know how to check whether anything can be improved.	Know how to test and evaluate their final product. Know if product is fit for purpose. Know what would improve product. Know if different resources would have improved their product. Know if they need more or different information to make it even better.
Cooking and Nutrition		Know how to cut food safely. Know to wash their hands and make sure that surfaces are clean. Know how to describe the texture of foods. Know interesting ways of decorating food they have made, e.g, cakes.	Know and explain what it means to be hygienic. Know and describe the properties of the ingredients they are using. Know how to be hygienic in the kitchen.	Know how to choose the right ingredients for a product. Know how to use equipment safely. Know that their product should look attractive. Know and describe how their combined ingredients come	Know how to present their product in an interesting way. Know what to do to be hygienic and safe.	Know and describe what they do to be both hygienic and safe. Know how to present their product well.	Know how to use equipment and appliances safely – e.g. safe and correct use of ovens. Know and explain how their product should be stored, with reasons.

				together. Know how to grow plants such as cress and herbs from seed with the intention of using them for their food product.			
Textiles		Know how to make a product from textile by gluing. Know how to describe how different textiles feel.	Know how to cut textiles. Know how to measure textiles. Know how to join textiles together to make something. Know why they chose a certain textile.	Know how to devise a template. Know what the user would want when choosing textiles. Know how to join textiles of different types in different ways, and explain how. Know how to choose textiles both for their appearance, and qualities. Know how to make their product strong.		Know and use a range of joining techniques. Know what the user would want when choosing textiles. Know about how their product can be sold. Know how to make their product attractive and strong. Know how to make up a prototype first. Know what would improve their product even more.	
Mechanisms		Know how to hold scissors and cut materials using scissors effectively.	Know how to join materials together as part of a moving product.				

		Know how to make a product which moves. Know how to describe the materials using different words. Say why they have chosen moving parts.	Know how to add some kind of design to their product.				
Materials		**Use of Materials** Know how to make a structure/model using different materials. Know how to keep their work tidy. Know how to make their model stronger if it needs to be.	**Use of Materials** Know how to use joining, folding or rolling to make materials stronger Know how to measure materials to use in a model or structure. Know how to join material in different ways. .	**Stiff and flexible sheet materials** Know how to join materials. Know the most appropriate materials to use. Know how to work accurately to make cuts and holes. **Mouldable materials** Know and use a range of techniques to shape and mould.	**Stiff and flexible sheet materials** Know how to measure carefully so as to make sure they have not made mistakes. Know how to make their product strong. **Mouldable materials** Know and use finishing techniques	**Stiff and flexible sheet materials** Know how to ensure that their product is strong and fit for purpose. Know how to use accurate measurements to ensure that everything is precise. **Mouldable materials** Know how to refine and improve their product.	**Stiff and flexible sheet materials** Know the importance of ensuring their work is precise and accurate. Know how to justify why they selected specific materials. Know how to work within a budget. Know how to hide joints so as to improve the look of their product. **Mouldable materials** Know the importance of ensuring their product meets all design criteria.

				Know how to select the most appropriate materials.	Know the importance of considering how they could have made their idea better. Know how to work at their product even though their original idea might not have worked.	Know how to persevere through different stages of the making process.	Know the importance of considering the use of the product when selecting materials.
Construction		Know how to select appropriate resources and tools for their building projects. Know how to talk with others about how they want to construct their product. Know how to make simple plans before making objects, e.g. drawings, arranging pieces of construction before building.	Know how to make sensible choices as to which material to use for their constructions. Know how to develop their own ideas from initial starting points. Know how to incorporate some type of movement into models. Know how to improve their construction.				
Electrical and mechanical components					Know how to make a product which uses both electrical and mechanical components.		Know how to incorporate a switch into their product. Know how to use different kinds of circuits in their

					Know how to use a simple circuit and add things to their circuits. Know how to alter their product after checking it. Know how to confidently try out new and different ideas.		product. Know different ways in which adding a circuit would improve their product. Know how to use mechanical systems in their products. Know how to refine their product.