Curriculum Aims:

Develop creative, technical and practical expertise to problem solve.

Design and make high quality prototypes and products for a range of users.

Critique, evaluate and test ideas and products.

Understand and apply the principles of nutrition.

Greatfield Park Design Technology Curriculum

DT skills should be taught linked to projects where possible to ensure REAL world application

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Use criteria to design and make purposeful, functional items Make pictures of their design saying what they want to make Talk about what they are doing during each stage	Design and make purposeful and functional products. Use pictures and words to convey what they want to design and make. Describe and explain what they are making, how it works and what they need to do next.	Design and make purposeful, functional and appealing products. Use drawings with notes to record ideas as they are developed. Discuss their work as it progresses.	Use research to develop the design of functional and appealing products. Record plan by drawing labeled sketches or writing and discuss this while working.	Use research and develop design criteria to design functional and appealing products that are fit for purpose. Consider different ways in which they can creatively record their planning to engage an audience.	Use research and develop design criteria to design innovative, functional and appealing products that are fit for purpose and aimed at particular groups or individuals. Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations.	Use research and exploration to identify and understand user needs when designing a product. Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations and computer based tools. Have an understanding of how much products cost to make.
Make	Use the correct tools for the job Know the tools they are using	Name the tools you are using. Use given tools for a variety of tasks e.g. Knife,	Select and name the tools needed to work the materials. E.g. spoons, cups, needles, yarn,	Think ahead about the order of their work and plan tools and materials needed. E.g.	Use tools and equipment, including those needed to weigh and measure ingredients, with	Select and use tools and equipment for a range of uses. E.g. cut and shape ingredients, join	Select from and use specialist tools and techniques for a range of uses. E.g. Whisk, craft knife, cutting mat,

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	Use equipment safely How to use techniques such as cutting, peeling and grating	grater, chopping board, scissors, needles, pins, scissors, templates, glue, tape. Join appropriately for different materials and situations. Explore ideas by rearranging materials e.g. paper, card, ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, mouldable materials.	scissors, saws, drills. Select materials from a limited range to meet design criteria. Follow procedures for safety and hygiene. Measure, mark out, cut and shape materials.	Weighing scales, glue gun, ruler. Consider working characteristics of materials. Accurately measure, mark out, cut and shape materials.	accuracy. Join and combine a range of materials, some with temporary, fixed or moving joints. Use techniques that involve a number of steps.	fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work. Join and combine a range of materials and ingredients using appropriate methods. E.g. beating, rubbing in, drilling, gluing, sewing, screwing.	safety ruler. Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.
Evaluate	Say what they like and dislike about products that they already know.	Explore existing products. Say what they like and do not	Explore and evaluate existing products. Talk about their	Investigate and analyse a range of existing products.	Use investigations of existing products to inform planning of their own	Show a clear understanding of the specification and use this to inform decisions.	Test, evaluate and refine ideas and products against a specification.

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	Begin to say how they could improve a product offering own ideas	like about products they have made. Consider and explain how the finished product could be improved. Use critique skills to evaluate the product	developing designs and identify good points and areas to improve throughout the design process. Evaluate their product and its appearance against a design criteria. Use critique skills to evaluate the product	Identify strengths and areas to improve in their own design. Identify what does and does not work in the product. Use critique skills to evaluate the product	product. Check their work as it develops and modify approach. Discuss how well their product meets the design criteria and the needs of the user. Use critique skills to evaluate the product	Justify decisions about materials and methods of construction. Evaluate products and use of information sources. Use critique skills to evaluate the product	Justify decisions made during the design process. Evaluate products and use of information sources throughout the process and use this to inform planning. Consider how recipes can be adapted to change taste, texture, aroma.
Technical Knowledge	Build structures using different materials Begin to make suggestions to make structures stronger and more stable Begin to explore mechanisms such	Build structures and investigate how they can be made more stable. Create models with wheels and axels. Insert paper fasteners for	Build structures and investigate how they can be made stronger, stiffer and more stable. Use a range of materials to create models with wheels, axels or hinges.	Create shell or frame structures and make structures more stable. Join and combine materials with temporary, fixed or moving joining. Incorporate a circuit with a	Prototype shell or frame structures. Strengthen frames with diagonal struts. Make levers and linkages. Know about inventors,	Build frameworks using a range of materials e.g. wood, corrugated card, plastic to support mechanisms. Use linkages to make movement larger or more varied.	Build complex frameworks using a range of materials to support mechanisms. Use a CAM to make an up and down mechanism. Control a model using an ICT control

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	as levers, wheels and axels Know that food has to be farmed, grown elsewhere or caught	card linkages. Know that everyone should eat at least 5 portions of fruit and veg a day.	Investigate temporary, fixed and moving joining's. Name and sort food into the 5 groups.	bulb or buzzer into a model. Know that food is grown in the UK, Europe and the Wider world. Know that to be active and healthy, food and drink are needed to provide energy for the body	designers, engineers, chefs, manufacturers who have developed ground-breaking products Know that a healthy diet is made up from a variety and balance of different food and drink	Incorporate motor and a switch into a model. Know that seasons may affect food availability.	programme. How food is processed into ingredients that can be eaten or used in cooking