Bailey Green Coverage of National Curriculum Foundation Subject Objectives and Progression of Skills.

Design & Technology – KS1

Through a range of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example the home and school, gardens and playgrounds, the local community, industry and the wider environment).

NC Objectives	Covered by and when	Skills taught and practised (I Can Statements).
Design **1a)** design purposeful, functional, appealing products for themselves and other users based on design criteria	**Y1** Sum 1 – Water raft	Use own experience to develop ideas and briefs that match the criteria set by the teacher. Talk about their ideas to the teacher and each other.
	Y2 Aut 2 – Mechanisms (Toy train) Spring 1 - Textiles (Money Purse)	Generate purposeful and appealing ideas based on design criteria. Talk about their ideas to the teacher and a wider audience.
1b) generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	**Y1** Aut 1 – Hand Puppets	Communicate their ideas using a variety of methods such as drawing, making models and discussion.
	Y2 Aut 2 – Mechanisms (Toy Train) Spring 1 - Textiles (Money Purse)	Communicate their ideas using a variety of methods such as drawing, making models, labelling, discussion and using ICT.
Make **2a)** select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	**Y1** Aut 1 – Hand Puppets Sum 1 – Water raft Spring 1 – Vegetable Tacos	Start to select from a range of tools, techniques and materials provided by the teacher. Handle tools, objects, construction and malleable materials safely.
	Y2 Aut 2 – Mechanisms (Toy Train) Spring 1 - Textiles (Money Purse)	Develop measuring, marking out and cutting skills. Choose and use a wider range of tools. Consider appropriate finishing techniques to complete the product. Handle tools, objects, construction and malleable materials safely.
2b) select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	**Y1** Sum 1 – Water raft Aut 1 – Hand Puppets Spring 1 – Vegetable Tacos	Explore and talk about the properties of materials such as felt, papers, card, fabrics, plastics, wood, art straws etc. Use simple finishing techniques such as sewing, painting, colouring.
	Y2 Aut 2 – Mechanisms (Toy Train) Spring 1 - Textiles (Money Purse)	Use appropriate vocabulary to discuss the qualities of materials such as felt, papers, card, fabrics, plastics, wood, art straws etc . Know about the properties of different materials such as those named above.
Evaluate **3a)** explore and evaluate a range of existing products	**Y1** Aut 1 – Hand Puppets Sum 1 – Water raft	Start to investigate and evaluate a range of familiar products such as simple toys or those appropriate to the design brief.
	Y2 Aut 2 – Mechanisms (Toy Train)	Investigate, disassemble and evaluate a range of familiar products such as simple toys or those appropriate to the design brief.

	Spring 1 - Textiles (Money Purse)	Explain how a product works.
3b) evaluate their ideas and products against design criteria	**Y1** Aut 1 – Hand Puppets Sum 1 – Water raft	Talk about their ideas, describe what they have done and evaluate their product.
	Y2 Aut 2 – Mechanisms (Toy Train) Spring 1 - Textiles (Money Purse)	Talk about their ideas, describe what they have done and state likes and dislikes.
Technical knowledge **4a)** build structures, exploring how they can be made stronger, stiffer and more stable	**Y1** Aut 1 – Hand Puppets Sum 1 – Water raft	Match, mark out, cut and shape a range of materials. Assemble, join and combine materials.
	Y2 Aut 2 – Mechanisms (Toy Train)	Explore how structures can be made stronger and more stable. Learn and use different joining techniques.
4b) explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products		
	Y2 Aut 2 – Mechanisms (Toy Train)	Know about mechanisms such as pop ups, slides, wheels and axles or those appropriate to the task.
Cooking and nutrition **5a)** use the basic principles of a healthy and varied diet to prepare dishes	**Y1** Spring 2 – Vegetable Tacos	Follow safe procedures for food safety and hygiene. Make a range of simple healthy snacks (fruit kebabs, smoothies, sandwiches).
	Y2 Sum 2 – Food (Picnic Pizzas)	Explain safe procedures for food safety and hygiene. Make a healthy choices to create some simple dishes.
5b) understand where food comes from	**Y1** Spring 2 – Vegetable Tacos	Know the source of some of the foods they are using.
	Y2 Sum 2 – Food (Picnic Pizzas)	Explain where some foods come from.

Design & Technology – KS2

Through a range of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example the home and school, gardens and playgrounds, the local community, industry and the wider environment).

NC Objectives	Covered by and when	Skills taught and practised.
Design **1a)** 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.	**Y3** Spring 2 – Safe Crossing for a Hedgehog (Lego Wedo) Sum 2 - Mechanisms – (Sliders/levers for a book)	Begin to generate ideas for products after thinking about who will use them and what they will be used for, selecting from information provided.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Generate ideas for products considering their use, selecting from information provided. Communicate design ideas in different ways as these develop, talking about aesthetic qualities and the purpose for which the product is intended.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Generate ideas for products after thinking about who will use them and what they will be used for selecting from information from a variety of sources including ICT.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Use research and design criteria to inform the design of products that are fit for purpose. Demonstrate an awareness of design, material and tool constraints.
1b) Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	**Y3** Spring 2 – Safe Crossing for a Hedgehog (Lego Wedo) Sum 2 - Mechanisms – (Sliders/levers for a book)	Develop ideas and start to explain them. Start to plan what they have to do using a simple sequence of actions and labelled sketches.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Develop a range of ideas and select the most effective. Plan and discuss what they have to do using a simple sequence of actions and annotated sketches.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Develop ideas and start to explain them clearly. Plan what they have to do using a simple sequence of actions and alternatives if needed, labelled sketches and prototypes.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Plan what they have to do using a sequence of actions and alternatives if needed, labelled sketches, cross-sectional diagrams, computer aided designs and prototypes
Make **2a)** Select from and use a wider range	**Y3** Spring 2 – Safe Crossing for a	Select from a wider range of appropriate tools and techniques for making their product.

of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Hedgehog (Lego Wedo) Sum 2 - Mechanisms – (Sliders/levers for a book)	Understand and follow safe procedures for using a range of tools.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Select from a wider range of appropriate tools and techniques for making their product. Understand and follow safe procedures for using different tools.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Select appropriate tools and techniques for making a product. Measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials accurately. Understand, explain and follow safe procedures for using a range of tools.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Select a range of appropriate tools and techniques for making a product. Develop precision and accuracy when marking out, cutting and shaping a range of materials. Assemble, join and combine components and materials accurately. Understand, explain and follow safe procedures for using a range of tools.
2b) Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	**Y3** Spring 2 – Safe Crossing for a Hedgehog (Lego Wedo) Sum 2 - Mechanisms – (Sliders/levers for a book)	Explore the qualities of a wider range of materials and how to use appropriate materials and processes. Begin to recognise how the working characteristics of materials affect what they are used for. Begin to explore how materials can be combined and mixed to create useful properties. Consider different ways of finishing the product to improve the aesthetic quality of the product.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Select carefully from a range of materials and use these appropriately. Recognise that different materials affect what they are used for. Explore how materials can be combined and mixed to create useful properties. Know that finishing the product to improve the aesthetic quality.
	Y5 Spring 2 –Mechanisms – Moving Bridge	Explore the sensory qualities of a wider range of materials and how to use appropriate materials and processes, being aware of possible constraints. Use appropriate skills for using finishing techniques and strengthen and improve the appearance of the product using a range of equipment and tools including ICT.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Choose and use appropriate materials and processes, being aware of aesthetic qualities and possible constraints. Finish, strengthen and improve the appearance of the product using a range of equipment, materials and tools, including ICT.
Evaluate **3a)** Investigate and analyse a range of existing products.	**Y3** Spring 2 – Safe Crossing for a Hedgehog (Lego Wedo)	Begin to recognise that the quality of the product depends on how well it is made, and how well it meets its intended purpose
	Y4 Aut 2 –Textiles- Christmas decoration Spring 2 – Food Technology (Saxon Soup)	Recognise that the quality of the product depends on how well it is made and how well it meets its intended purpose.

	Sum 1 Mechanisms (Trebuchets),	
	Y5 Aut 1 – Greek Gyros, Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Understand that existing products depend on how well they are made and how well they meets their intended purpose.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Investigate and analyse a range of existing products.
3b) Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	**Y3** Aut 1 – Energy Bar Spring 2 – Safe Crossing for a Hedgehog (Lego Wedo)	Begin to reflect on the progress of their work as they design and make, identifying ways they could improve their products. Carry out appropriate tests as suggested by the teacher before making any improvements.
	Y4 Aut 2 –Textiles- Christmas decoration Spring 2 – Food Technology (Saxon Soup) Sum 1 Mechanisms (Trebuchets)	Reflect on the progress of their work as they design and make, identifying ways they could improve their products. Carry out appropriate tests, to evaluate the functionality of the product.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Regularly review the progress of their work as they design and make, identifying ways they could improve their products. Carry out appropriate tests before making any improvements.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Regularly review the progress of their work against the design criteria.
3c) Understand how key events and individuals in design and technology have helped shape the world.	**Y3** Sum 2 - Mechanisms – (Sliders/levers for a book)	
	Y4 Aut 2 –Textiles- Christmas decoration Spring 2 – Food Technology (Saxon Soup) Sum 1 Mechanisms (Trebuchets)	
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Recognise how well products meet social, economic and environmental considerations.
	Y6 Aut 1 – Anderson Shelter Aut 2 – Rooms with a security device.	Understand how key events have helped shape the world.

Technical knowledge **4a)** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	**Y3** Sum 2 - Mechanisms – (Sliders/levers for a book)	Use a range of mechanical components, mouldable materials, stiff and flexible sheet materials and textiles.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Use a range of components, mouldable materials, stiff and flexible sheet materials and textiles.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Use a range of components, mouldable materials, stiff and flexible sheet materials and textiles.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle)	Apply knowledge of materials to strengthen, stiffen and reinforce more complex structures.
4b) Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Y3** Sum 2 - Mechanisms – (Sliders/levers for a book)	Begin to explore how mechanisms such as levers, pivots and cogs can be used to make things move in different ways using a range of equipment.
	Y4 Aut 2 –Textiles- Christmas decoration Sum 1 Mechanisms (Trebuchets)	Explore how mechanisms such as levers, pivots and cogs can be used to make things move in different ways using a range of equipment.
	Y5 Spring 2 –Mechanisms – Moving Bridge Sum 1 Model Making CAD	Explore how mechanisms such as gears, pulleys and cams can be used to make things move in different ways using a range of equipment.
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle)	Use mechanisms such as gears, pulleys, cams and levers to make things move in different ways using a range of equipment.
4c) Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].		
	Y6 Aut 2 – Switches (Making an Alarmed Vehicle) Sum 1 Packaging Design	Incorporate electrical systems such as switches, bulbs, buzzers and motors, in products.
4d) Apply their understanding of computing to program, monitor and control their products.		
	Y5 Sum 1 Model Making CAD	Use knowledge of computing to program and control products.
	Y6 Sum 1 Packaging design	Use knowledge of design and computing to create digital packaging
Cooking and nutrition **5a)** Understand and apply the principles of a healthy and varied	**Y3** Aut 1 – Energy Bar	Understand and follow safe procedures for food safety and hygiene.
	Y4	Use safe procedures for food safety and hygiene.

diet.	Spring 2 – Food Technology (Saxon Soup)	
	Y5 Aut 1 – Greek Gyros	Understand, explain and follow safe procedures for food safety and hygiene.
	Y6 Sum 2 – Savoury Pasta Dish	Understand, explain and follow safe procedures for food safety and hygiene. Demonstrate a knowledge of the principles of a healthy, varied diet.
5b) Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	**Y3** Aut 2 – Energy Bar	Follow a recipe to cook predominantly savoury dishes.
	Y4 Spring 1 – Food Technology (Saxon Soup)	Follow a recipe and create predominantly savoury dishes using a range of cooking techniques.
	Y5 Aut 1 – Greek Gyros	Prepare and cook a range of predominantly savoury dishes using a range of cooking techniques.
	Y6 Sum 2 – Savoury Pasta Dish	Explore, prepare and cook a range of predominantly savoury dishes using a range of cooking techniques.
5c) Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	**Y3** Aut 2 – Energy Bar	Know where a variety of ingredients are grown.
	Y4 Spring 1 – Food Technology (Saxon Soup)	Know where and how a variety of ingredients are grown.
	Y5 Aut 1 – Greek Gyros	Be able to explain where and how a variety of ingredients are grown.
	Y6 Sum 2 – Savoury Pasta Dish	Understand how a variety of ingredients are grown, reared, caught and processed.