St Cecilia's Catholic Primary School-Planning Overview for **Design Technology**

	Autumn	Spring	Summer
Year 1	**Eat More Fruits and Vegetables** *Includes the lessons: Delicious Data; Using Senses; Preparing Fruit and Veg; Recipe Designs; and Let's Eat!* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks for cutting -select from and use a wide range of ingredients, according to their characteristics -explore and evaluate a range of existing products -evaluate their ideas and products against design criteria	**Moving Minibeasts** *Includes the lessons: Sliding Mechanisms; Lever and Pivot Mechanisms; Designing a Moving Picture; Making a Moving Picture; and Evaluating a Moving Picture.* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and components, including construction materials, according to their characteristics	**Stable Structures** *Includes the lessons: Exploring Product Features; Planning Designs; Investigating Materials; Following a Plan; and Evaluate.* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and components, including construction materials, according to their characteristics -explore and evaluate a range of existing products

St Cecilia's Catholic Primary School-Planning Overview for **Design Technology**

		-explore and evaluate a range of existing products -evaluate their ideas and products against design criteria -explore and use lever and slider mechanisms in their products	-evaluate their ideas and products against design criteria -build structures, exploring how they can be made stronger, stiffer and more stable
Year 2	**Puppets** *Includes the lessons: Investigating Puppets; Making Finger Puppets; Sewing Skills; Design a Puppet; Making Puppets; and Evaluating Puppets.* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and components, including textile materials, according to their characteristics	**Vehicles** *Includes the lessons: Vehicle Features; Wheels, Axles and Chassis; Bodywork; Design a Vehicle; Making Vehicles; and Evaluation.* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and components, including construction materials, according to their characteristics	**Perfect Pizzas** *Includes the lessons: What's your favourite pizza?; Exploring Breads; Exploring Toppings, Recipe Designs; and Let's Eat!* **NC LINKS:** -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks for cutting -select from and use a wide range of ingredients, according to their characteristics -explore and evaluate a range of existing products -evaluate their ideas and products against design criteria

St Cecilia's Catholic Primary School-Planning Overview for **Design Technology**

Year 3	Sandwich Snacks **N.C. LINKS:** Understand and apply the principles of a healthy and varied diet.	STEM Week Moving Monsters **N.C. LINKS:** Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. Test and evaluate their own products against design criteria and the intended user and purpose. the correct technical vocabulary for the projects they are undertaking use their design criteria to evaluate their completed products	CREATE Summer Term Project **N.C. LINKS:** Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. Order the main stages of making. Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities. Use finishing techniques suitable for the product they are creating referring to their design criteria as they design and make. How to use learning from science to help design and make products that work that materials have both functional properties and aesthetic qualities
Year 4	Alarms (Linked to Science) **N.C. LINKS:** Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas understand and use electrical systems in their products [for example, series circuits	STEM Week Soups **N.C. LINKS:** Understand and apply the principles of a healthy and varied diet. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	CREATE Summer Term Project **N.C. LINKS:** Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas.

	incorporating switches, bulbs, buzzers and motors]		Make design decisions that take account of the availability of resources. Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities. Test and evaluate their own products against design criteria and the intended user and purpose. refer to their design criteria as they design and make. Use their design criteria to evaluate their completed products. How to use learning from mathematics to help design and make products that work that materials have both functional properties and aesthetic qualities that mechanical and electrical systems have an input, process and output the correct technical vocabulary for the projects they are undertaking
Year 5	Moving Toys **N.C. LINKS:** How more complex electrical circuits and components can be used to create functional products understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	STEM Week Bread **N.C. LINKS:** • that a recipe can be adapted by adding or substituting one or more ingredients	CREATE Summer Term Project **N.C. LINKS:** Carry out research, using surveys, interviews, questionnaires and web-based resources. identify the needs, wants, preferences and values of particular individuals and groups. generate innovative ideas, drawing on research. Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities.

St Cecilia's Catholic Primary School-Planning Overview for **Design Technology**

			produce appropriate lists of tools, equipment and materials that they need identify the strengths and areas for development in their ideas and products consider the views of others, including intended users, to improve their work critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make the correct technical vocabulary for the projects they are undertaking
Year 6	Fairground **N.C. LINKS:** How mechanical systems such as cams or pulleys or gears create movement understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	STEM Week Burgers **N.C. LINKS:** that a recipe can be adapted by adding or substituting one or more ingredients	CREATE Summer Term Project **N.C. LINKS:** carry out research, using surveys, interviews, questionnaires and web-based resources identify the needs, wants, preferences and values of particular individuals and groups develop a simple design specification to guide their thinking generate innovative ideas, drawing on research make design decisions, taking account of constraints such as time, resources and cost Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities. formulate step-by-step plans as a guide to making use techniques that involve a number of steps identify the strengths and areas for development in their ideas and products consider the views of others, including intended users, to improve their work

			critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make evaluate their ideas and products against their original design specification how to reinforce and strengthen a 3D framework the correct technical vocabulary for the projects they are undertaking