



**Rushbury C of E Primary School**

**Design and Technology Knowledge and Skills Progression - Year A**

<b>Class</b>	<b>Term</b>	<b>Scheme of Work</b>	<b>Key areas from NC.</b>
Ticklerton	Autumn	Structures: constructing windmills	To include individual preferences and requirements in my design To make a stable structure To assemble the components of my structure To evaluate my project and adapt my design
Ticklerton	Spring	Textiles: puppets	To join fabrics together using different methods. To use a template to create my design. To join two fabrics together accurately. To embellish my design using joining methods.
Ticklerton	Summer	Food: Fruit and veg	To identify if a food is a fruit or a vegetable. To identify where plants grow and which parts we eat. To taste and compare fruit and vegetables. To make a fruit and vegetable smoothie.
Gretton	Autumn	Food: eating seasonally	To know that climate affects food growth. To understand the advantages of eating seasonal foods grown in the UK. To create a recipe that is healthy and nutritious using seasonal vegetables. To safely follow a recipe when cooking.
Gretton	Spring	Digital world: electronic charm	To understand the impact of the digital revolution in the world of (D&T) product design. To write a program to initiate a flashing LED panel after button press and/or automatically initiate using the Micro:bit light sensing, as part of an eCharm. To create and decorate a foam pouch for the eCharm, using a template. To design a display badge and/or stand using CAD (computer-aided design) software for an eCharm product.
Gretton	Summer	Structures: constructing a castle	To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure. To design a castle To construct 3D nets To construct and evaluate my final product.
Stanway	Autumn	Doodlers	To understand how motors are used in electrical products. To investigate an existing product to determine the factors that affect the product's form and function. To put findings from research into practice to develop a unique product. To develop a DIY kit for another individual to assemble their product.
Stanway	Spring	Mechanical systems: making a pop up book	To design a pop-up book. To follow my design brief to make my pop up book. To use layers and spacers to cover the working of mechanisms. To create a high-quality product suitable for a target use.
Stanway	Summer	Food: what could be healthier	To understand where food comes from. To understand the term 'healthy'. To adapt a traditional recipe. To complete a food product.



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**Design and Technology Knowledge and Skills Progression - Year B**

<b>Class</b>	<b>Term</b>	<b>Scheme of Work</b>				
Ticklerton	Autumn	Structure –baby bears chair	To explore the concept and features of structures and the stability of different shapes To understand that the shape of the structure affects its strength To make a structure according to design criteria To produce a finished structure and evaluate its strength, stiffness and stability			
Ticklerton	Spring	Mechanisms – fairground wheel	To know that different materials have different properties and are therefore suitable for different uses. To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder.To know that it is important to test my design as I go along so that I can solve any problems that may occur.			
Ticklerton	Summer	Mechanisms – making a monster	To look at objects and understand how they move. To look at objects and understand how they move. To explore different design options. To make a moving monster.			
Gretton	Autumn	Structure: pavillions	To create a range of different shaped frame structures. To design a structure. To build a frame structure. To add cladding to a frame structure.			
Gretton	Spring	Mechanical systems – making a sling shot car	To build a car chassis. To design a shape that reduces air resistance. To make a model based on a chosen design. To assemble and test my completed product.			
Gretton	Summer	Electrical systems -torches	To understand that electrical conductors are materials which electricity can pass through. To understand that electrical insulators are materials which electricity cannot pass through. To know that a battery contains stored electricity that can be used to power products. To know that an electrical circuit must be complete for electricity to flow. To know that a switch can be used to complete and break an electrical circuit.			
Stanway	Autumn	Textiles - waistcoats	To design a waistcoat. To mark and cut fabric according to a design. To assemble a waistcoat. To decorate your waistcoat.			
Stanway	Spring	Structure - playgrounds	To design a playground with a variety of structures. To build a range of structures. To improve and add detail to structures. To create the surrounding landscape.			
Stanway	Summer	Digital world – navigating the world	To write a design brief and criteria based on a client request. To write a program to include multiple functions as part of a navigation device. To develop a sustainable product concept. To develop 3D CAD skills to produce a virtual model. To present a pitch to 'sell' the product to a specified client.			

