

“Every child is a unique child of God.”

WHINMOOR



ST. PAUL'S
C of E Primary School

Design and Technology Progression of Skills

Structures – Autumn Term

	KS1 (Y1)	LKS2 (Y3)	UKS2 (Y5)
Product Knowledge	<ul style="list-style-type: none"> Explore and evaluate a range of existing products in the context of evaluating the basket used to transport the pirates' lunch. Explore and evaluate a range of existing products in the context of evaluating existing lunch boxes. 	<ul style="list-style-type: none"> Investigate freestanding structures and how they are made stable. Find different ways of strengthening and joining paper and card. Investigate ways of making stable freestanding structures. 	<ul style="list-style-type: none"> Investigate a range of existing products in the contexts of looking at existing freestanding structures. Apply understanding of how to strengthen, stiffen and reinforce structures that are more complex.
Design	<ul style="list-style-type: none"> Select from and use a wide range of materials according to their characteristics in the context of exploring materials that could be used to make the lunch box. Design purposeful, functional, appealing products for themselves and other users based on design criteria in the context of designing a new lunch box that can move between the pirate ships. 	<ul style="list-style-type: none"> Use research and develop design criteria to inform the design of innovative, functional, appealing products that suitable to create a stable picture frame. 	<ul style="list-style-type: none"> Analyse a range of existing products in the context of investigating commercially bought marble runs, in order to design a new product, fit for purpose.
Make	<ul style="list-style-type: none"> Select from and use a wide range of materials according to their characteristics in the context of selecting and using the correct tools and equipment to make a lunch box. 	<ul style="list-style-type: none"> Select from a range of tools and equipment to be able to make a stable picture frame from a design. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing), accurately in the context of developing practical skills to help make bends in marble runs.
Evaluate	<ul style="list-style-type: none"> Explore their ideas and products against design criteria, test the lunch box, and evaluate it. Build structures, exploring how they can be made stronger, stiffer and more stable in the context of making my product. 	<ul style="list-style-type: none"> Evaluate their ideas against a finished product and successful criteria. Consider ways to improve their work. To be able to evaluate a finished product. 	<ul style="list-style-type: none"> Evaluate their ideas against their own design criteria and consider the views of others to improve their work in the context of evaluating their marble run against the design criteria set.

Textiles – Autumn Term

	KS1 (Y2)	LKS2 (Y4)	UKS2 (Y6)
Product Knowledge	<ul style="list-style-type: none"> Investigate a range of puppets and their features. Work with fabric to create a finger puppet. 	<ul style="list-style-type: none"> Explore a range of money containers and examine their features. 	<ul style="list-style-type: none"> Research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.
Design	<ul style="list-style-type: none"> Develop and practise sewing skills. Design an appealing puppet based on successful criteria. 	<ul style="list-style-type: none"> Generate, develop and communicate their ideas through discussion, prototypes and pattern pieces in the context of making a money container. Practise a range of stitches to inform the final design. 	<ul style="list-style-type: none"> Generate, develop and communicate their ideas through discussion, prototypes and pattern pieces in the context of making a paper template for a mobile phone case. Practise different stitches to inform the final design techniques and fastenings for felt phone cases. Create a step-by-step plan to communicate the making process.
Make	<ul style="list-style-type: none"> Select from and use a wide range of materials and textiles to create a puppet from a design. 	<ul style="list-style-type: none"> Select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities in order to make a textiles money container. 	<ul style="list-style-type: none"> Select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities in order to make a phone holder.
Evaluate	<ul style="list-style-type: none"> Explore and evaluate their ideas and products against design criteria. 	<ul style="list-style-type: none"> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. 	<ul style="list-style-type: none"> Evaluate their ideas and products against their own design criteria in the context of evaluating a felt phone case against a design criteria created.

Food Technology – Spring Term

	Year 1 Salad	Year 2 Dips and Dippers	Year 3 Edible Garden
Product Knowledge	<ul style="list-style-type: none"> Understand where food comes from in the context of looking at different fruit and vegetable. Understand the difference between fruits and vegetables. 	<ul style="list-style-type: none"> Understand where food comes from. Explain the basic principles of a healthy and varied diet in the contexts of comparing different ingredients in dips and dippers. 	<ul style="list-style-type: none"> Understand seasonality and know where and how varieties of ingredients are grown in the context of where and how herbs and strawberries are grown. Understand seasonality, and know where and how varieties of ingredients are grown in the context of growing tomatoes.
Design	<ul style="list-style-type: none"> Design a healthy salad based on a successful criteria. 	<ul style="list-style-type: none"> Design purposeful, functional, appealing products for themselves and other users based on design criteria in the context of designing a new dip. 	<ul style="list-style-type: none"> Design a healthy and nutritious recipe for a meal using seasonal ingredients.
Make	<ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks. Chop food safely. Follow a design to create a salad. 	<ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks. Chop food safely. Follow a design to make a new dip and dipper. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks accurately in the context of kitchen tools Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of making a strawberry smoothie Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of cooking a dish made with tomatoes.
Evaluate	<ul style="list-style-type: none"> Explore and evaluate a range of existing products. Taste and evaluate the final product against successful criteria. 	<ul style="list-style-type: none"> Explore and evaluate a range of existing products in the contents of comparing different dips. Taste and evaluate the final product against successful criteria. 	<ul style="list-style-type: none"> Taste and evaluate the meal, considering taste, smell, texture and appearance.

	Year 4 Bread	Year 5 Global Foods	Year 6 Seasonal Cooking
Product Knowledge	<ul style="list-style-type: none"> Understand how key events and individuals in design and technology have helped shape the world in the context of the history behind Warburtons. 	<ul style="list-style-type: none"> Understand seasonality and know where and how varieties of ingredients are grown. Understand and apply the principles of a healthy and varied diet in the contexts of understanding how diets are varied around the world but still consist of the same food group. Understand the nutritional benefits of eating rice. 	<ul style="list-style-type: none"> Understand seasonality in the context of when fruit and vegetables are in season in Britain. Understand seasonality and know where and how a variety of ingredients are reared caught and processed in the context of where food is reared, caught and processed in the United Kingdom. To understand seasonality in the context of tasting food that is in season Understand and apply the principles of a healthy and varied diet in the context of the importance of protein in the diet.
Design	<ul style="list-style-type: none"> 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 in the context of creating a design criteria for a new type of bread. 	<ul style="list-style-type: none"> HA - Adapt a traditional recipe. 	<ul style="list-style-type: none"> Select from a wider range of ingredients, according to their functional properties and aesthetic qualities in the context of selecting ingredients for a seasonal meal. Generate, develop, model and communicate their ideas through discussion and annotated sketches in the context of designing a healthy seasonal meal.
Make	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks for example shaping accurately in the context of shaping salt dough. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of making a new bread product. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks Prepare and cook a variety of savoury dishes using a range of cooking techniques in the contexts of preparing and cooking Mexican food. Use a range of cooking techniques to cook Chinese food. Use a range of cooking pretzels. 	<ul style="list-style-type: none"> Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of preparing and cooking a healthy seasonal meal. Select from and use a wider range of tools and equipment to perform practical tasks
Evaluate	<ul style="list-style-type: none"> Investigate and analyse a range of existing products in the context of different breads made by Warburtons. Taste and evaluate the meal, considering taste, smell, texture and appearance. 	<ul style="list-style-type: none"> Taste and evaluate the meal, considering taste, smell, texture and appearance. 	<ul style="list-style-type: none"> Taste and evaluate the meal, considering taste, smell, texture and appearance. Consider the views of others to improve their work in the context of improving their design for a seasonal meal.

Mechanisms – Summer Term

	KS1 (Y1) Moving Pictures	KS1 (Y2) Vehicles	LKS2 (Y3) Mechanical Posters	UKS2 (Y6) Automata Animals
Product Knowledge	<ul style="list-style-type: none"> Explore and use mechanisms (for example levers) in their products in the context of using a lever to make a picture move. 	<ul style="list-style-type: none"> Explore and use mechanisms in their products in a variety of vehicles. Explore and investigate wheels, axles and chassis. 	<ul style="list-style-type: none"> Understand and use mechanical systems in their products (for example levers and linkages), in the context of making a mechanism which uses levers and linkages. Understand and use mechanical systems in their products (for example levers and linkages), in the context of knowing the name and function of the parts of a lever and linkage system. 	<ul style="list-style-type: none"> Understand and use mechanical systems in their products (for example cams) in the context of understanding how cams can be used to make a model move. Understand and use mechanical systems in their products (for example cams) in the context of understanding how changing the shape of the cam changes the movement of the follower
Design	<ul style="list-style-type: none"> Design purposeful, functional and appealing products for themselves and other users based on design criteria in the context of designing an appealing moving picture. Generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups in the context of drawing an annotated sketch to show their ideas about a moving picture. 	<ul style="list-style-type: none"> Design purposeful, functional and appealing products for themselves and other users based on design criteria in the context of designing the body of a vehicle. Generate and develop ideas into a design for a vehicle. 	<ul style="list-style-type: none"> Use research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at individuals or groups, in the context of developing design criteria and design ideas for a moving poster to promote recycling. Generate, develop, model and communicate ideas through discussion, annotated sketches, and prototypes, in the context of generating and developing ideas to make a moving poster. Generate, develop, model and communicate ideas through discussion, annotated sketches, and prototypes, in the context of using the moving poster design to create a prototype. 	<ul style="list-style-type: none"> 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 in the context of researching animals that will be used in their mechanical models Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups in the context of developing design criteria for the Automata Animals.
Make	<ul style="list-style-type: none"> Explore and use mechanisms (for example levers and sliders) in their products in the context of making a moving picture. 	<ul style="list-style-type: none"> Explore and use mechanisms (for example wheels and axles) in their products in the context of making a vehicle. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks accurately, in the context of selecting and using the correct tools and equipment make a moving poster. 	<ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing), accurately in the context of using tools and equipment to perform the job of cutting, joining and finishing wood to make a frame.
Evaluate	<ul style="list-style-type: none"> Evaluate their ideas against design criteria in the context of evaluating a moving picture. 	<ul style="list-style-type: none"> Evaluate their ideas against design criteria in the context of evaluating a vehicle. 	<ul style="list-style-type: none"> Investigate and analyse a range of existing products, in the context of investigating existing lever and linkage mechanisms. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work, in the context of evaluating their moving poster. 	<ul style="list-style-type: none"> Using Mechanical Systems Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of evaluating the product design. Understand and use mechanical systems in their products in the context of using a cam mechanism to make a model of an animal move.

KS2 Electricals and Digital World – Summer Term

	LKS2 (Y4) Electricals – Battery Operated Lights	UKS2 (Y5) Digital World – Programming Adventures.
Product Knowledge	<ul style="list-style-type: none"> Understand how key events and individuals in design and technology have helped shape the world in the context of looking at technological developments in the way we light our homes Understand and use electrical systems in their products (for example, series circuits, incorporating switches, and bulbs) in the context of understanding how a series and parallel circuit can be used to light a bulb. Understanding how switches can be made and used in circuits. 	<ul style="list-style-type: none"> Apply their understanding of computing to program, monitor and control their products by understanding what floor robots are, how they are programmed and controlled.
Design	<ul style="list-style-type: none"> 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 in the context of developing design criteria for a light. Generate, develop, model and communicate their ideas through annotated sketches and cross sectional in the context of sketching a design for a light. 	<ul style="list-style-type: none"> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams prototypes, pattern pieces and computer-aided by designing an adventure map. 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 by exploring how different materials affect the movement and control of floor robots. Plan an adventure map
Make	<ul style="list-style-type: none"> 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 in the context of choosing materials and components to make the main structure of the light. 	<ul style="list-style-type: none"> 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 by creating an adventure map using materials selected for their properties. Apply their understanding of computing to program, monitor and control their products by programming and monitoring floor robots on finalised adventure map
Evaluate	<ul style="list-style-type: none"> Evaluate their ideas and products against design criteria and consider the views of others to improve their work in the context of evaluating a battery-operated light. 	<ul style="list-style-type: none"> Evaluate their ideas and products against design criteria.

