

SUBJECT:	Design & Technology	YEAR GROUP:	6
PURPOSE OF STUDY			
<p>Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.</p>			
THE NATIONAL CURRICULUM FOR DESIGN AND TECHNOLOGY AIMS TO ENSURE THAT ALL PUPILS:		NATIONAL CURRICULUM LINKS	
<ul style="list-style-type: none"> • Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. • Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users. • Critique, evaluate and test their ideas and products and the work of others. • Understand and apply the principles of nutrition and learn how to cook. 		<p>KS2:</p> <ul style="list-style-type: none"> • Through a variety 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, school, leisure, culture, enterprise, industry and the wider environment]. <p>Cross-curricular links:</p> <ul style="list-style-type: none"> • Geography – countries and cultures around the world. • History – ancient civilisations, products throughout history • English – Links to text used, • Life skills – cooking • Maths – measurements • Science – circuits, food groups and balanced diet • RSHE – Balanced diet 	
TOPICS COVERED:			
<ul style="list-style-type: none"> • Greek food • Textiles 			

- Mayan Food
- Electrical Mayan masks
- Bread around the world
- Today's toys

INTENT OF SUBJECT:

In this subject, pupils will develop an understanding and awareness of foods from different cultures. They will develop understanding of food and kitchen safety and independence skills within the kitchen and food preparation. Pupils will be able to identify ingredients that are used in different food products, why these are used and how they are grown, reared, caught and processed. Pupils will develop their design process skills through completing research, designing products, making products and evaluating their products they have made. They will develop practical skills including stitching, food preparation and making products through selecting and using appropriate tools and materials. Pupils will develop understanding of electrical circuits and how they can be used within products. Pupils will develop their research skills to research products throughout history, identifying how they have changed, and parts used in different products to make them work.

SKILLS OVERVIEW BY HALF TERM:

AUTUMN ONE

- Be able to explain the principles of a healthy and varied diet.
- Know the key foods of different cultures and their place in society.
- Be able to make a range of foods from different cultures.
- Be able to tell the difference between recipes and evaluate preferences.
- Explain the key ingredients used in a dish.
- Know where and how a variety of ingredients are grown, reared, caught and processed.
- Be able to design own food using key flavours and ingredients from another culture.
- Be able to follow instructions for recipes.
- Observe how to handle knives and other kitchen equipment correctly.
- Measure out ingredients correctly as stated in a recipe.
- Know the main five food groups and use these in a recipe.
- Be able to make observations about seasonal food and why it is seasonal.
- Explain the difference between use by and sell by dates.
- Be able to organise ingredients and equipment ready to follow a recipe.

AUTUMN TWO

- Be able to explain what a crest is and what these represent.
- Be able to identify different stitching techniques and explain how to do these.
- Research and comment on existing products.
- Be able to brainstorm ideas and develop these to create a design for a product.
- Be able to explain where different materials come from, what they are used for and how sustainable these are.
- Be able to select appropriate materials to use to make a product.
- Be able to identify safety rules to follow when using equipment.
- Be able to select and use tools appropriately and safely.
- Design a product to fit a design brief and make this.
- Be able to make a product, using appropriate tools and materials.
- Be able to evaluate own and other people's products, identifying strengths and areas for improvement.

SPRING ONE	SPRING TWO
<ul style="list-style-type: none"> • Be able to explain the principles of a healthy and varied diet. • Know and make traditional and key foods of different cultures. • Be able to tell the difference between recipes and evaluate preferences. • Know where and how a variety of ingredients are grown, reared, caught and processed. • Be able to design own and make own food based on a design brief. • Be able to identify food groups and food within each of these. • Be able to follow recipes and use equipment appropriately. • Measure out ingredients correctly as stated in a recipe. • Know the main five food groups and use these in a recipe. • Be able to make observations about seasonal food and why it is seasonal. • Explain the difference between use by and sell by dates. • Be able to organise ingredients and equipment ready to follow a recipe. 	<ul style="list-style-type: none"> • Be able to understand and use electrical systems in products. • Be able to understand and use series circuits incorporating switches, bulbs, buzzers, and motors · • Be able to understand computing to program, monitor and control designed products • Be able to investigate and analyse a range of existing products. • Be able to evaluate own ideas and products against own design criteria and consider the views of others to improve works. • Be able to understand how key events and individuals in design and technology have helped shape the world. • Know how to test components in more complex circuits (series and parallel) • Know the technical vocabulary for simple parts and switches. • Know how a simple switch is made and explain products that use simple switches. • Know how to assess faults in electrical systems. • Be able to test components in a simple series circuit. • Be able to explain materials that make good conductors and insulators • Know how electrical systems are controlled (i.e. flow charts) • Be able to make a plan for a product based on research of historical images. • Be able to design a switch that uses LEDs in a circuit to make the eyes light up on a Mayan mask/figure. • Be able to make a product with an added switch incorporated, using LED's.
SUMMER ONE	SUMMER TWO
<ul style="list-style-type: none"> • Be able to explain the basic stages of food production. • Know about food from across the world and how the recipes differ. • Be able to present information about food using tables and graphs and named drawings of different breads. • Be able to design a product based on a design brief. • Be able to experiment with shaping ideas using salt dough. • Be able to use IT to support investigation, to present data and to design. • Know about ingredients used in food and why they are used. • Be able to use a range of food techniques to make a food based on a given brief. 	<ul style="list-style-type: none"> • Know how production has progressed over the years • Explain how consumers needs have changed over the years. • Be able to research existing products, which are successful in today's market and how these are made. • Explain the key differences between different materials used to make products and the strengths and weaknesses. • Know the various parts of different products. • Be able to explain the similarities and differences between products over time, researching historical products and comparing to modern day. • Be able to sketch and label a variety of designs.

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| <ul style="list-style-type: none">• Explain using the appropriate vocabulary the changes that take place during the process of making food.• Explain how and why food is used in different religions, cultures and celebrations.• Design, specify and make a food product.• Successfully make food and conduct tasting evaluations in class. | <ul style="list-style-type: none">• Be able to design a product that you think would be marketable based on research undertaken.• Be able to produce a detailed design a plan for the finishing / decoration stage of a product, taking into account safety and the endurance of the materials chosen.• Be able to select and use appropriate materials to make a product.• Be able to evaluate the final product and what could be improved on and how. |
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