

KS3 Medium Term Plan for DT

	Key Vocabulary YEARS 7,8,9 Please note these definitions of key words which need to be understood in the specific context of Design and Technology, across all year groups. design 1. plan to do something with a specific purpose in min 2. do a drawing of something before making it designer 1. a person who creates a plan for something they want to make 2. `also focus on ‘designer’ as a job title/career, e.g. ‘fashion designer’ technology Using what we know about Science to help us make useful things product An outcome piece with a function/that does something - not necessarily a thing which can be sold brief The initial instructions that tell us what we need to do in our project user The person who we are designing our product for, whose needs/wants must be taken into account	
Autumn	YEAR 7: In the Kitchen • Health and safety • Equipment use and explore the different parts of a recipe and demonstrated how to follow a recipe to produce a finished dish. • Distinguish between gas and electric hobs and can safely turn on and use a hob correctly. • Introduced to the oven and how it is to be used safely asks to enable pupils to explore how to increase the amount of fruit and vegetables in their diets. • Fruit salad • Soup • Crumble • Macaroni Cheese • Chilli • Rock cakes • Scones	YEAR 7 - DESIGN - 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. - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. YEAR 7 - MAKE - Select from & use a wider range of tools & equipment to perform practical tasks, such as cutting, shaping, joining & finishing accurately. - 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. - Investigate and analyse a range of existing products. YEAR 7 - EVALUATE - Evaluate their ideas & products against their own design criteria & consider the views of others to improve their work. - Understand how key events and individuals in design and technology have helped shape the world. YEAR 7 - COOKING & NUTRITION - Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. - Understand weights and volumes to the nearest gram or oz. To the nearest ml. According to equipment available. - Use electronic scales. - Demonstrate a range of baking and cooking techniques, including use of the hob, grill and oven. - Modify recipes to your own needs and the needs of your family. - Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms), linked to fridge temperature and food poisoning. - Design meals that are high in nutrients and effective energy sources, using mainly wholegrain & brown carbohydrates. - Understand how to use yeast and develop knowledge of bread making theory. - Understand staple foods from around the world, focusing on world carbohydrates. - Understand how to select effective sources of energy, using the eat-well guide. - State how to improve products. - Select the correct equipment and ingredients. - Refine recipes and techniques as work progresses, continually evaluating progress.

Autumn	YEAR 8: Healthy Food Choices • Develop an awareness of the importance of eating a balanced diet in order to keep our body healthy. • Explore the importance of getting the right balance of food in our diet. • Discover how we can read and interpret the label on an item of food • Learn how to use the quick ‘traffic light’ label used on food packaging • Taste testing skills by comparing shop bought and homemade French bread pizza. • Quesadillas, • Chicken nuggets and wedges • Kebab. • Sugar and fat free muffins • Homemade French bread pizza.	YEAR 8 – DESIGN - Use research and exploration to identify and understand user’s needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 8 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from & use a wider range of materials, components and ingredients taking into account their properties and their intended use YEAR 8 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups YEAR 8 - COOKING & NUTRITION - Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). - Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. - Demonstrate a range of baking and cooking techniques. - Create and refine recipes, including ingredients, methods, cooking times and temperatures. - Design with the user in mind, motivated by producing healthy balanced meals, which represent the eatwell plate. - Make products through stages of prototypes, making continual refinements. - Ensure products have a high quality finish, using 3D drawings, cross sections and zoom ins where appropriate. - Add detailed annotations to explain the function of ingredients, skills and techniques and nutritional value of meals. - Combine elements of design from a range of inspirational cooks throughout history, giving reasons for choices. - Create innovative designs that improve upon existing products. - Evaluate the design of recipes and swap ingredients for more favourable ones.
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Autumn	YEAR 9: World Foods • Research activities and focused practical tasks to create food from different countries around the world • The first part of this topic focused on the cuisine we recognise as ‘typically’ British. • Looking and the food from different countries. • Learn skills of making short crust pastry and pasta • Cheese and onion pie • Bolognaise sauce to accompany homemade pasta • spring rolls • Vegetable stir fry	YEAR 9 – DESIGN - Use research and exploration to identify and understand user’s needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 9 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from & use a wider range of materials, components and ingredients taking into account their properties and their intended use. YEAR 9 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups. YEAR 9 – COOKING & NUTRITION - Understand cross-contamination and begin to use low risk raw meats in our cooking. - Use the oven with confidence to fry, grill and bake. - Mix and combine ingredients evenly and professionally. - Consider shaping and presentation skills, finishing dishes more professionally. - Use equipment skilfully and use electrical equipment where appropriate. - Make pastry, understanding how to achieve a quality shortcrust pastry. - Understand nutrition and energy in greater detail and its impact on the body. - Understand how to make healthy economical dishes for the whole family. - Have a firm understanding of the function of ingredients and select ingredients for their nutritional, sensory and physical properties. - Research, select and modify your own recipes, according to the needs of users. - Understand the function of eggs as a starting point for understanding function of ingredients. - Use seasonal and world produce appropriately and sensitively. - To develop designs which are suitable for a wider range of users. - To produce dishes which are economical, on a large scale and produced professionally. - To understand how to tailor dishes for a range of user needs, both for a specific user and whole user groups. - To base their economical dishes on carbohydrates and vegetables. - To experiment and practice dishes, until they become well presented. - To design in greater detail, becoming confident with tone and using a greater range of views which demonstrate ingredients, physical properties and sensory properties. Sensory starts to reflect on the sensory properties of dishes. - To start to use zoom ins and add more nutritional information, backed up by the impact on our bodies. - To add annotations which are more detailed and comment on skills, nutrition, physical and sensory properties. - Improvement actions based on sensory properties and improvement in skills. - To begin to justify and explain choices. - To show more detailed subject knowledge. - To start to use computer programmes to plan diet and menu planning. - To comment on portion size. - To evaluate their products against professionally made ones, & suggest improvements against their peers work & assessment criteria. - To have an awareness of popular cooking culture and the advice of main stream chefs. - To have an awareness of what products should look like and how they can be identified as successful. - To suggest more detailed improvements based on their misconceptions, mistakes and experience.
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Spring	YEAR 7: Moving Toy Project • Learn about controlling movement with a cam mechanism as part of a simple toy. • Develop their designing skills by using information sources to generate ideas and formulate an understanding of how cam mechanisms can be used to produce movement. • Extend their making skills by developing techniques in cutting, shaping and joining to combine components and by selecting tools and equipment to measure and cut accurately. • Gain an understanding of the working characteristics of the materials and components and how they can be combined to create more useful properties. • Consider both functional and decorative attributes in a finished product.	YEAR 7 - DESIGN - 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. - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. YEAR 7 - MAKE - Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately. - 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. - Investigate and analyse a range of existing products. YEAR 7 - EVALUATE - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - Understand how key events and individuals in design and technology have helped shape the world.
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Spring	YEAR 8: Desk Top Clock Project • Design and make an acrylic desk top clock. • Learn new skills and knowledge of tools, equipment and focus on plastic and its properties. • Gain an understanding of different types of plastics as well as developing their knowledge and understanding of plastics properties and classifications. • Pupils will produce and publish their own evidence of the process. YEAR 9: Pewter Project • Develop pupils understanding of industrial casting techniques and metal work. • Understand basic principles of the properties of metals, packaging and marketing. • Build upon design and making skills previously learnt. • Design and make a pewter key ring that is manufactured using the process of pewter casting.	YEAR 8 – DESIGN - Use research and exploration to identify and understand user’s needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 8 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from and use a wider range of materials, components and ingredients taking into account their properties and their intended use. YEAR 8 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups YEAR 9 – DESIGN - Use research and exploration to identify and understand user’s needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 9 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from and use a wider range of materials, components and ingredients taking into account their properties and their intended use. YEAR 9 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups.
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Summer	YEAR 7: Batik Soft Toy Owl • Design ideas for a soft toy owl • Make your owl's face and feet in fabric • Use a Batik to make the fabric for the owls body and wings • Analyse and evaluate YEAR 8 Pencil Cases • Use the sewing machine to practise. • Scamper Design sheets • Driving test - fabric pens & stamps • Transfer Paints/ Fabric • Pinning zip to fabric/ taking and sewing it on using the sewing machine • Making pencil cases • Analyse and evaluate YEAR 9: Pillowcase project • Research on pillowcases • Explore ideas and develop them to make a pillowcase • Learn how to use the tie dye technique & applique technique • Make a pillowcase including using the tie dye and applique techniques • Analyse and evaluate	YEAR 7 - DESIGN - 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. - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. YEAR 7 - MAKE - Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately. - 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. - Investigate and analyse a range of existing products. YEAR 7 - EVALUATE - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - Understand how key events and individuals in design and technology have helped shape the world. YEAR 8 – DESIGN - Use research and exploration to identify and understand user's needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 8 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from and use a wider range of materials, components and ingredients taking into account their properties and their intended use. YEAR 8 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups. YEAR 9 – DESIGN - Use research and exploration to identify and understand user's needs. - Identify and solve their own design problems and understand how to reformulate problems given to them. - Design innovative, functional and appealing products that respond to the needs of the intended user. YEAR 9 – MAKE - Select from and use specialist tools, techniques, processes, equipment and machinery precisely. - Select from & use a wider range of materials, components and ingredients taking into account their properties and their intended use. YEAR 9 – EVALUATE - Analyse the work of past and present designers and others to develop and broaden their understanding. - Test, evaluate and refine their ideas and products against a design specification, taking into account the views of intended users and other interested groups.
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