

Curriculum Map template

Subject: KS3 DT Carousel



Year: 7

	Resistant Materials	Textiles	Food Tech
Content	Designing and making an acrylic key ring and clock	Designing and making a hand applique phone sock.	Introduction to core practical skills and basic food nutrition
Knowledge	<p>Students will learn about Health & Safety. Including how to use a variety of workshop machines and hand tools safely. They will understand developments in design and technology, their impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.</p> <p>Students will develop an understanding of different properties of different plastics, their origins and uses.</p> <p>Students will develop an understanding of what the Design Process is and how it is used to create imaginative and high quality designs and products.</p> <p>They will develop an understanding of the advantages, disadvantages of CAD/CAM, and automated production</p> <p>They will learn how to Model in 3D using Google Sketchup</p>	<p>Students will be introduced to and develop their knowledge and understanding of a variety of textile equipment and processes to design and make an Applique Phone Sock.</p> <p>They will understand how to follow the design development cycle to develop their design ideas.</p> <p>Using ACCESSFM, students will look at and evaluate existing products, exploring how they can influence their own design ideas.</p> <p>They will explore where fibres come from and how fabric is made.</p>	<p>Students will learn about Health & Safety in a working kitchen environment. Including how to use a variety of kitchen tools safely (knives/peelers). Students will develop an understanding of core skills that are needed in the kitchen whilst understanding what makes up a balanced diet and being able to apply that to their food choices. Students will also be taught how to use food labeling to understand the nutritional value of food products.</p>

<p>Skills</p>	<p>Students will learn questioning, critical thinking, Logical thinking techniques and evaluative and analytical techniques..</p> <p>They will learn creative strategies and skills required to refine design ideas to meet criteria whilst considering the limitations of materials, processes, skill and time.</p> <p>Students will develop their sketching, labels, notes & explanations to communicate their ideas. They will develop their skills using standard drawing techniques like: isometric, orthographic projection, plan views, exploded views.</p> <p>Students will develop their skills in planning, organising stages of production, foreseeing and overcoming problems. Quality control checks and estimates of time.</p> <p>Students are taught to use coping saw, files, wet and dry paper, scroll saw, pillar drill, belt sander. They develop skills using the equipment through a variety of manufacturing tasks including practice shapes, Scroll saw runway, more complex scroll saw shapes. Making paper templates to ensure accuracy and making a key ring with both card and acrylic.</p> <p>They will learn how to use Google Sketchup to develop and model a 3D product, and how to use a 3D printer to manufacture it.</p>	<p>Students will learn and develop the following skills:</p> <p>The process of hand applique.</p> <p>Hand embellishment skills.</p> <p>Basic pattern cutting/template making skills.</p> <p>How to answer a project brief through completing research and design development.</p> <p>How to complete a product analysis.</p>	<p>Students will learn and develop the following skills:</p> <ul style="list-style-type: none"> ● core health and safety in the kitchen ● knife skills - bridge and claw ● using the cookers (hob, grill and oven) ● making a reduction sauce ● making a roux based sauce ● making a simple dough based product ● creating a food packaging with correct labeling information on it <p>the skills are taught incrementally throughout the project and each taught skill is revisited (interweaving) as the project progresses.</p>
<p>Key Questions</p>	<p>What is the design process?</p> <p>How do you design and make a product which answers the project brief and meets specification points?</p> <p>How can looking at existing products influence your design ideas?</p> <p>How do you use the different workshop machines safely and accurately?</p> <p>Why are different plastics used for different products?</p> <p>Where do plastics come from?</p> <p>How do plastics affect the environment?</p> <p>What are the advantages and disadvantages of CAD/CAM</p>	<p>What is the design process?</p> <p>How do you design and make a product which answers the project brief and meets specification points?</p> <p>Why do designers look at existing products? How can looking at existing products influence your design ideas?</p> <p>What is applique and how can I use it to recreate my design?</p> <p>How can I use hand embroidery and sewing skills to make a phone sock?</p> <p>Where does fabric come from and how is it made?</p>	<p>What is health and safety and how does it impact us?</p> <p>Why can it be dangerous to store some foods at a warm temperature?</p> <p>What is the Eatwell guide?</p> <p>What are macronutrients?</p> <p>What is energy balance?</p> <p>What is the relationship between energy intake and physical activity?</p>

<p>Assessment</p>	<p>Students' classwork and homework will be assessed against the success criteria detailed in the following bands: Planning, Communication, Making and Evaluating and awarded the following Aspire Levels: Foundation, Developing, Secure, Excellent. Students will be required to complete a Health & Safety test, and End of Unit test.</p>	<p>Students' classwork and homework will be assessed against the success criteria detailed in the following bands: Planning, Communication, Making and Evaluating and awarded the following Aspire Levels: Foundation, Developing, Secure, Excellent. Students will be required to complete a Health & Safety test, and End of Unit test.</p>	<p>Students' classwork and homework will be assessed against the success criteria detailed in the following bands: Health and safety (Personal and Kitchen), Planning, Making (assessment is made throughout the project with a final practical to confirm grade) and Evaluating and awarding the following Aspire Levels: Foundation, Developing, Secure, Excellent. Students will be required to complete the end of unit test.</p>
<p>Literacy/numeracy/SMSC/Character</p>	<p>Students' will develop their knowledge, understanding and use of subject specific terminology. Students' will develop their application of numeracy skills through the production of scaled drawings and measuring and marking out materials. Students' will have to consider their customers' likes and interests when developing their product to meet the customers needs.</p>	<p>Students' will develop their knowledge, understanding and use of subject specific terminology. Students' will develop their application of numeracy skills through the production of scaled drawings and measuring and marking out materials. Students' will have to consider their customers' likes and interests when developing their product to meet the customers needs.</p>	<p>Students' will develop their knowledge, understanding and use of subject specific terminology. Students' will develop their application of numeracy skills through measurements of ingredients and BMI.</p>
<p>Enrichment opportunities and futures</p>	<p>Enrichment - Watching Abandoned Engineering, Grand Designs, 100K House, The Big Life Fix. Careers - Engineer, Product or Industrial Designer, Interior Designer, Retail Designer, Exhibition Designer, Film Set Designer, Automobile Designers, Theatre Set Designer, Manufacturer, Machine Operator, Architect, Exhibition Designer, Toy Designers, Game Designer, Furniture Designer, Electrical Engineer, Carpenter, Plumber, Electrician, Employability Skills - Planning, Fine Motor Skills, Creativity, Organisation, Critical and Logical Thinking, Problem Solving, Risk Awareness</p>	<p>With the skills gained students can be given the opportunity to produce their own products at home or at Textile Club. Enrichment - Watching Great British Sewing Bee, Next in Fashion, read Fashion magazines, visit museums and galleries, watch fashion documentaries. Careers- fashion designer, marketing, seamstress, upholstery, advertising, buyer Employability skills- planning, independent work, dexterity, fine motor skills, design, critical thinking, creativity, Problem solving.</p>	<p>With the skills gained students can explore (with permission) cooking at home. students will be informed of external opportunities to enter competitions / draws. (step up2 the plate, etc) The great Haydon bakeoff (internal - activity we host at the end of a rotation to celebrate students accomplishments)</p>

