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St Mark's All-Through Curriculum Map for Design Technology (KS1 – 3)

<table>
<tr><th></th><th colspan="2">Autumn</th><th>Spring</th><th>Summer</th><th></th></tr>
<tr><td></td><td colspan="5">The foundations of our design technology curriculum are developed in year R to ensure that the children are well prepared for year 1. In year R, design technology skills are explicitly taught to the children; they are also given opportunities to apply these through their play.</td></tr>
<tr><td rowspan="4">EYFS</td><td colspan="5"><u>Year R Art and Design Foundations</u>

● Have exposure to and use various construction materials through play.

Design

● Children think about what they want to make, how they may do it and the materials and resources that they may need to shape, assemble and join the materials they are using.
Make

● Children begin to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.
● Joins construction pieces together to build and balance.
● Uses simple tools and techniques competently and appropriately.

Evaluate

Children adapt their work where necessary to improve their construction</td></tr>
<tr><td colspan="5">Early Learning Goal: Creating with Materials

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

-Share their creations, explaining the process they have used.

Make use of props and materials when role playing characters in narratives and stories.</td></tr>
<tr><td colspan="5">Half Termly Milestones for Design Technology</td></tr>
<tr><td>Autumn 1

Explore materials freely e.g. junk modelling.</td><td>Autumn 2

Start to develop and explain their own ideas and with help can decide which</td><td>Spring 1

Children can join materials together e.g. adhesive tape, different types of glue</td><td>Spring 2

Children can plan what they are making for a purpose and overcome problems during the process 'Something for</td><td>Summer 1

Choosing, combining and decorating materials
--manipulates materials to achieve a planned effect:</td><td>Summer 2

Choosing, combining and decorating materials

-manipulates materials to achieve a planned effect:</td></tr>
</table>

		materials they can use to express them.		somebody for some purpose'.	'Something for somebody for some purpose'.	'Something for somebody for some purpose'.

Year 1

Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).

Year 1	Autumn Year 1	Spring Year 1	Summer Year 1
			<u>1.2 Summer 1: Materials – Pop-up fairy tale story</u> **Design** -Begin to understand the development of existing pop up books: What they are for, how they work, what materials and mechanisms are used? -Design their own pop-up book using a design criteria through talk and drawings. **Make** –Begin to demonstrate a range of gluing, cutting and shaping techniques (such as tearing, cutting, folding, joining and finishing). -Make use of mechanisms in their products (levers, sliders and pivots). **Evaluate** -Discuss how well the product works. Explain likes and dislikes Future Learning: 2.2, 3.1, 4.2, 5.1
		<u>1.1 Food Technology: Afternoon tea on the moon (sandwiches)</u> -Start to understand where food comes from.	

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		-Explore and evaluate a range of existing dishes using the basic principles of a healthy and varied diet to -design dishes that meet the design criteria. Develop their ideas through talk and drawings. - prepare simple dishes safely and hygienically, without using a heat source. -Know how to use techniques such as cutting, peeling and grating. - Evaluate their dishes against the design criteria Future Learning: 2.1, 3.2, 4.3, 5.2, 7.1, 7.2	

Year 2

Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).

	Autumn Year 2	Spring Year 2	Summer Year 2
Year 2	**2.1 Autumn 1: Food Technology: Harvest Festival (Soup)** **DESIGN** -understand that all food comes from food or animals, knowing that it has to be farmed, grown elsewhere or caught. -Revisit and review the key principles of healthy eating from Year 1 (1.1) and be able to sort food into groups. -use the basic principles of a healthy and varied diet to design dishes , considering a target audience where appropriate **Make** -Measure or weigh using measuring cups or electronic scales. Learn about the purpose of a recipe and begin to follow a simple recipe. -Demonstrate how to prepare simple dishes safely and hygienically, using		

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	techniques learnt in year 1 such as cutting, peeling and grating (1.1). -Use of a heat source to finish preparation **Evaluate** -Start to evaluate their products as they are developed, identifying strengths and possible changes they might make. Future Learning: 3.2, 4.3, 5.2, 7.1, 7.2		
	2.2 Autumn 2: Materials: (Mechanisms) build a fire engine: **Design** -Explore and evaluate a range of moving products. -develop design ideas through discussion, observation, drawing and modelling. -Identify a target group for the product and design criteria **Make** -select tools and equipment to build structures: (review year 1 skills such as tearing, cutting, folding, joining and finishing 1.2)). -build structures, exploring how they can be made stronger, stiffer and more stable -Explore and use mechanisms in their products (levers, wheels and winding mechanisms). **Evaluate** -Evaluate against the design criteria -Identify strengths and possible changes they might make Future Learning: 3.1, 4.2, 5.1, 7.5, 7.6		**2.3 Summer 2: Textiles: Pirate hat** **Design** -Explore and evaluate a range of products. -develop design ideas through discussion, observation, drawing and modelling (2.2). -Identify a target group for the product (2.2) and design criteria -Create templates and a mock up prototype to support with making. **Make** -cut, shape and assemble fabric for joining - Use a RUNNING STITCH to join fabrics -Start to choose and use appropriate finishing techniques based on own ideas. **Evaluate** -Evaluate against the design criteria -Identify strengths and possible changes they might make (2.2) Future Learning: 3.3, 4.1, 6.2, 7.1, 7.2
Year 3			
Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).			

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Year 3	**3.1 Autumn 1: Materials: Build your own Stonehenge** **Design** -Use research to understand the design, the materials used and the construction technique -Design -considering which materials can be used to strengthen, stiffen (2.2) and reinforce their structure. -Make templates and mock-ups of their ideas in card and paper. Measure, mark out, cut, score and assemble components with more accuracy. **Make** -Select from a wider range of tools and techniques (KS1- tearing, cutting, folding, joining and finishing 1.2, 2.2).and explain the choices they have made based on their functional properties. **Evaluate** -Think about ideas as they make progress and make adaptations to strengthen, stiffen or reinforce. -Evaluate their structure against their original design criteria Future Learning: 4.2, 5.1, 7.5, 7.6	**3.3 Spring 1: Textiles: Animal Puppets** **Design** -To investigate and evaluate a range of existing hand puppets. -To come up with own ideas through discussion and annotated sketches in the context of designing a hand puppet. -to explore and design a functional design for their hand puppet. -Review the use of prototypes in year 2 for the pirate hats (2.3). Develop pattern pieces/prototypes for the puppets. **Make** -To select from and use a range of tools and equipment to create an animal puppet. -cut, shape and assemble fabric for joining with increasing accuracy (showing an understanding of seam allowance). -REVISE the use of a RUNNING STITCH from year 2 (2.3) - Use a RUNNING STITCH to join fabrics -Start to choose and use appropriate finishing techniques (2.3) based on own ideas, such as adding on buttons, beads or sequins **Evaluate** -Start to evaluate their product against original design criteria and through testing - how well did it meet its purpose? Future Learning: 4.1, 6.2, 7.1, 7.2	**Summer 1:**
	3.2 Autumn 2 Food Technology: Making Bread -Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK. -Start to understand that a healthy diet is made up of variety and balance of different food and drink. **Design** -Identify a purpose and establish design criteria for a successful bread dish, by exploring familiar products. **Make**		

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	-Measure or weigh (2.1) using measuring cups or electronic scales. Follow a recipe. - Prepare the dish safely and hygienically (2.1) using a range of techniques such as mixing, spreading, kneading and baking using a heat source. **Evaluate** -Evaluate the product against the design criteria - how well did it meet its purpose? Focus on taste and appearance. Future Learning: 4.3, 5.2, 7.3, 7.4		

Year 4

Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).

Year 4	**4.1 Autumn 1: Textiles – Pencil Cases** **Design** -With growing confidence generate ideas for an item, considering its purpose and audience- seek out the views of target audience through market research. -design the pencil cases using labelled drawings from different views showing specific features. -Review the use of patterns and prototypes (2.3, 3.2) to ensure accuracy when making. **Make** -cut, shape and assemble fabric for joining with increasing accuracy (showing an understanding of seam allowance). -REVISE the use of a RUNNING STITCH from year 2 and 3 2.3, 3.2) - learn the BACKSTITCH (JOINING for straight lines) -learn the whipstitch (for joining two pieces - Children to start to choose appropriate stitches and explain their choice of technique. -Start to choose and use appropriate finishing techniques based on own ideas, such as adding on buttons, beads or sequins (3.2) or using the CROSS STITCH to add decorative detail	**Spring 1:**	**4.3 Summer 1: Food Technology – European Cuisine** **Design** -Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK (3.2), and Europe. - understand the seasonality of foods, considering which foods are available in the different seasons. **Make** -Measure or weigh using measuring cups or electronic scales - Prepare European dishes (following recipes) safely and hygienically using a range of techniques such as cutting, peeling, grating (key stage 1), mixing, spreading, kneading and baking (year 3.2) chopping, slicing, and using a heat source. **Evaluate** -Evaluate and begin to seek evaluation from others, focusing on taste, aroma, texture and appearance. Future Learning: 5.2

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ONE SCHOOL - SERVING ALL - THROUGH EXCELLENCE

	Evaluate -Evaluate their products against the design criteria and by seeking feedback from their target audience. Future Learning: 6.2, 7.1, 7.2		
		4.2 Spring 2: Materials: Battery Powered Buggies -Understanding of the invention of automobiles and their development over time due to key events and inventors (e.g. Karl Benz). **Design** -Use research to generate ideas, considering the purposes for which they are designing - design the buggies using labelled drawings from different views showing specific features. -explain their choice of materials and components according to function (3.1) and aesthetic. **Make** -Construct a 2D frame structure using woodwork and joinery -Understand and use mechanical systems in their products (gears, cams) -Understand and use electrical systems in their products (circuits, motors, bulbs). **Evaluate** -Evaluate their products against the design criteria and by carrying out appropriate tests (race). Future Learning: 5.1, 7.5, 7.6	
Year 5			
Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).			

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Year 5			
	5.1 Autumn 2: Mechanisms – Fairground Rides --Understanding of the invention of fairground rides and their development over time due to key events and inventors (e.g. Frederick Savage). REVIEW OF YEAR 4 ELECTRICITY KNOWLEDGE (Sci 4.4) **Design** -Use research to develop design criteria to create a product fit for purpose (Carousel or Ferris Wheel). -Generate and communicate ideas through discussion, annotated and cross-sectional sketches (4.2) and exploded view diagrams. **Make** -Construct a 3D frame structure using woodwork and joinery. PROGRESSION IN JOIN FROM YEAR 4 -Understand and use mechanical systems in their products (axle pulley) -Understand and use electrical systems in their products (circuits, motors (4.2), switches). - Apply their understanding of computing to program their models using FLOWOL **Evaluate** -Evaluate products against the design criteria Future Learning: 7.5, 7.6		**5. 2 Food: Greek Cuisine** **Design** -Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe (3.2, 4.3) and the wider world. - Review seasonality and the foods available in the different seasons (4.3). Begin to understand that seasons may affect the food available and understand how we are able to get food that is not in season. - Research and plan Greek cuisine dishes, taking into account the key principles of a healthy, balanced diet (3.2). **Make** -prepare and cook a variety of GREEK, predominantly savoury, dishes safely and hygienically. With growing confidence select appropriate materials, tools and techniques such as: cutting, peeling, grating (1.1, 2.1), mixing, spreading, kneading and baking (3.2) chopping, slicing, and using a heat source (4.3). **Evaluate** - Evaluate dishes (star diagram) Future Learning: 7.3, 7.4
Year 6			
Curriculum Content (Core Knowledge and Vocabulary outlined on the Knowledge Organiser).			

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Year 6			
	6.1 Autumn 2: 3D computer Aided Design (Cross curricular application – Computing) **Knowledge and Skills:** -CAD (computer aided design) is the use of a computer itself to be able to design a product. Designers can create a series of designs to better communicate their ideas. -Learn how to view, move, rotate, size up, group and align within Tinkercad. **Design & Make** Use these tools to develop initial designs using 3D software in the design process. **Evaluate** -Develop and review designs against the design brief. -Render the design adding tone and colour to make it look more realistic.		**6.2 Autumn 2: Textiles: Bags inspired by key fashion designers** -Evaluate the designs and work of key fashion designers that have helped to shape the fashion industry over time (Link to Lesson 4 of the art unit). **Design** -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. -Draw up a specification for their design and plan the order of their work. **Make** -Show an understanding of the qualities of materials to choose appropriate tools to cut and shape. Cut with precision and refine finish when necessary. - Create products using pattern pieces and seam allowances. -Join fabrics by applying a range of stitches - Review and revisit BACK STITCH, RUNNING STITCH, CROSS STITCH, and WHIPSTITCH (3.3, 4.1) and learn how to OVERSTITCH. -Accurately apply a range of finishing techniques for decoration. **Evaluate** -Evaluate their work both during and at the end of the assignment. Record their evaluations using drawings with labels. -Evaluate against their original criteria and suggest ways that their product could be improved. Future Learning: 7.1, 7.2
Year 7			

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Year 7

7.1 Autumn 1: Resistant Materials - Adjustable Mirror

Applying making skills to build a movable mirror out of timber. Key making skills are incorporated such as measuring, marking out, cutting, wasting, drilling and joining

- Review practical D&T skills from KS2 such as cutting, shaping and joining.
- Review the design process including the use of materials research and knowledge of materials..
- To draw upon knowledge of different CAD packages to be able to view, move, rotate, size up and group (6.1)
- Identify various common timbers and construction materials.
- Identify common woodworking tools and equipment.
- Safely navigate a workshop, be aware of potential hazards and use new tools safely and effectively, demonstrating good technique.
- Know how to cut, shape and join Timber.

Design: To be able to consider the target market and design 2 distinctive designs that would appeal to the students chosen group.

Making: to manipulate, shape and fabricate pre prepared materials in order to become better skilled within the practical workshop environment. Follow instructions, dimensions and diagrams in order to achieve accuracy and quality of outcome. To be very familiar with health and safety protocols enabling the ability to work independently. To identify where accuracy is poor and independently improve them. To meet practical deadlines across the term and lesson by lesson.

To be able to use simple commands on Techsoft 2D design to recreate their mirror design using CAD/CAM.

Evaluation: To qualify judgements on practical outcomes. To be able to recall and communicate key concepts

Future Learning: 7.2, 8.3, 9.5

7.3 Spring 1: Textiles – Exploring Fabric and Stitch

Exploring fabric and its properties as well as knowing different hand stitching and machine stitching techniques. To draw inspiration from samples to create a range of flag designs which includes different manufacturing techniques.

- Review stitches from KS2 such as running, back, cross and whipstitch.
- Review the design process including the use of research and developing designs.
- Review the use of patterns, cutting and assembling fabric. (6.2, 4.1, 3.2, 2.3)
- Understand the difference between natural and man-made fabrics
- Identify the parts of a sewing machine and identify key elements of health and safety.
- Know how to thread a sewing machine and complete running stitch and zig zag.
- To be able to prepare dye to the correct ratios.
- To correctly be able to prepare a swatch of fabric for tie dying.

Design: Create a range of flag designs that feature stitching and textile techniques practised in samples, creating sketches and templates to work with. Know how to select and reject a design, thinking carefully about fabric (natural or man made), stitches (running, back, whip, cross, blanket or machine stitches) and additional materials such as buttons, ribbons etc.

Making: Using a range of stitching (hand, machine) and textile techniques as well as selecting and using appropriate fabric to recreate their sketched designs. To be very familiar with health and safety protocols enabling the ability to work independently. To identify where accuracy is poor and independently improve them. To meet practical deadlines across the term and lesson by lesson.

Evaluation: Exploring existing examples and analysing these. Evaluating work as it progresses and adapting.

Future Learning: ART AND DESIGN 9.

7.5 Summer 1: Food preparation and Nutrition - Healthy Choices.

Learning basic Food Preparation and Nutrition skills such as safety in the kitchen, good hygiene practices, weighing ingredients, washing up and using a paring knife. Food Theory will be taught alongside demonstrations and are based on nutrition and healthy choices.

- Review practical Food skills from KS2 such as cutting, grating (1.1, 2.1), mixing, spreading, kneading and baking (3.2) chopping, slicing, and using a heat source (4.3).
- Continue to embed expectations in the Food rool and how to work safely, emphasising health and safety (3.2, 4.3)
- To be able to identify a wide range of cooking implements and be able to discuss and use them correctly such as a paring knife, grater, palette knife ect.
- To be able to learn new food preparation skills such as the wet mixture into dry mixture (muffin) methods.
- Be able to operate and apply an increasing range of cooking methods such as baking and grilling.
- To continue to build some understanding of having a Healthy diet and what key nutrients and vitamins are needed to keep our bodies healthy.

Making: Students are to have a good working understanding of health, safety and hygiene in the kitchen and be able to identify all the basic equipment they will find at their stations. Students are to learn basic preparation and cooking methods including: using the bridge/claw hold when preparing ingredients, how to use the oven, hobs and grill safely and how to correctly combine ingredients to get the desired outcome. Follow written recipes and work effectively as a team to complete the practical dishes within the time constraints. Students are to learn the key features of a Healthy diet, referencing the'Eat-well plate,' fibre, nutrients, carbohydrates and government guidelines on healthy eating.

ST. MARK'S CE SCHOOL
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			Evaluation: Students are to be able to sample and provide an evaluation on the success of a dish, using key descriptive words to communicate thoughts on appearance, handling and taste. Future Learning: 8.4, 8.5
	7.2 Autumn 1/2: Resistant Materials – Adjustable Mirror Applying making skills to build a movable mirror out of timber. Key making skills are incorporated such as measuring, marking out, cutting, wasting, drilling and joining - Review practical D&T skills from KS2 such as cutting, shaping and joining. - Review the design process including the use of materials research and knowledge of materials. - To draw upon knowledge of different CAD packages to be able to view, move, rotate, size up and group (6.1) - Identify various common timbers and construction materials. - Identify common woodworking tools and equipment. - Safely navigate a workshop and be aware of potential hazards. - Know how to use workshop tools safely and effectively demonstrating good technique. - Know how to cut, shape and join Timber - To be able to use simple commands on Techsoft 2D (CAD) to recreate their design in preparation for CAM. **Design:** To be able to consider the target market and design 2 distinctive designs that would appeal to the students chosen group. **Making:** to manipulate, shape and fabricate pre prepared materials in order to become better skilled within the practical workshop environment. Follow instructions, dimensions and diagrams in order to achieve accuracy and quality of outcome. To be very familiar with health and safety protocols enabling the	**7.4 Spring 2: Food preparation and Nutrition - Healthy Choices.** Learning basic Food Preparation and Nutrition skills such as safety in the kitchen, good hygiene practices, weighing ingredients, washing up and using a paring knife. Food Theory will be taught alongside demonstrations and are based on nutrition and healthy choices. - Review practical Food skills from KS 2 such as cutting, peeling (1.1, 2.1), mixing and baking (3.2) chopping, slicing, and using a heat source (4.3). - Introduce the Food room and how to work safely within. Emphasis on hygiene and safety. (3.2, 4.3) - To be able to identify a wide range of cooking implements and be able to discuss and use them correctly such as a paring knife, peeler, palette knife ect. - To be able to learn new food preparation skills such as rubbing-in method. - Be able to operate and apply an increasing range of cooking methods such as baking, boiling and the use of hobs. - Pupils will learn how to be safe and healthy when working with food, such as being able to identify rules around food hygiene and why they are in place. e.g. rules around avoiding cross-contamination with reference to allergies and intolerances. - To be able to have some understanding of the key features of having a Healthy diet and what the main food categories, nutrients and vitamins are. **Making:** Students are to have a good working understanding of health, safety and hygiene in the kitchen and be able to identify all	**7.6 Summer 2: Graphic Products - Blockbots** Exploring and embedding Computer Aided Design as a way of supporting traditional design techniques focusing on key commands that are applicable or adaptable to a large amount of softwares. -Review basic CAD techniques such as view, move, rotate, size up, group and align.(6.1, 7.2) -Students can create a series of annotated designs to better communicate their ideas.(4.1,4.2,6.1) -Developing designs using CAD software.(6.1) -Be able to recognise basic nets and be able to identify the 3D forms looking at the 2D shapes. (LINK TO MATHS?) -To be able to use basic Graphic Design techniques such as colour, line, shape and pattern to communicate a design effectively. -To be able to expand their knowledge of CAD to include 2D drawing packages -To be able to build on basic knowledge and be able to identify and use more complex tools such as path, delete part and boundary fill. -To be able to safely use cutting tools such as a scalpel, cutting mat and safety rule and mitigate any potential hazards. **Design:** To be able to come up with a range of designs simplifying complex character designs into a Block Bot form. Students are able to communicate their design thinking using annotations. **Making:** Students are to create their favourite design idea on Techsoft 2D Design using a range of design tools and be able to recreate their traditional drawn design idea into the CAD design package. Students are able to use a scalpel and associated health and safety equipment to cut out and

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	ability to work independently. To identify where accuracy is poor and independently improve them. To meet practical deadlines across the term and lesson by lesson. To be able to use simple commands on Techsoft 2D design to recreate their mirror design using CAD/CAM. **Evaluation:** To qualify judgements on practical outcomes. To be able to recall and communicate key concepts Future Learning: 8.3, 9.5	the basic equipment they will find at their stations. Students are to learn basic preparation and cooking methods including: using the bridge/claw hold when preparing ingredients, how to use the oven, hobs and grill safely and how to correctly combine ingredients to get the desired outcome. Follow written recipes and work effectively as a team to complete the practical dishes within the time constraints. Students are to learn the key features of a Healthy diet, referencing the 'Eat-well plate,' fibre, nutrients, carbohydrates and government guidelines on healthy eating. **Evaluation:** Students are to be able to sample and provide an evaluation on the success of a dish, using key descriptive words to communicate thoughts on appearance, handling and taste. Future Learning: 8.4, 8.5	assemble their Blockbots neatly to ensure a high quality finish. Future Learning: 8.5, 9.2, 9.5
Year 8			
Year 8	**8.1 Autumn 1: Resistant Materials - Tool Caddy** Applying manufacturing skills to build a toolbox out of timber. Key making skills are incorporated such as measuring, marking out, cutting, wasting, drilling and joining - Review practical D&T skills such as marking out, cutting, shaping and joining (4.2, 5.1, 7.1, 7.2) - Be able to recall and recognise various common timbers and construction materials and be able to apply relevant knowledge of those materials whilst manufacturing (7.1, 7.2) - Recall how to safely use common woodworking tools such as tenon saws, bench hooks, pillar and cordless drill (5.1, 7.1, 7.2) - To be able to recall the use of simple commands on Techsoft 2D (CAD) to create an individual design in preparation for CAM. (7.2, 7.6) - Be able to conduct themselves safely in the workshop, be aware of potential hazards and how to mitigate risks (7.1, 7.2) - Know what risk assessments are and why they are important to conduct when using heavy machinery.	**8.3 Autumn 1: Graphic Products - Festival Project** Using research methods to explore branding and advertising and be able to apply research into creating a range of products for a festival that share a common visual identity. - Review the design process including the need for researching existing designers and outcomes (4.3,5.2) - Be able to generate a range of design ideas, including annotation about form and function (5.2) - To draw upon knowledge of different CAD packages to be able to view, move, rotate, size up and group (6.1) - Be able to conduct an,effective task analysis, breaking down a large component into design factors to consider. - To be able to analyse the work of others making reference to typography, colour choice, imagery, target market and legibility.	**8.5 Summer 1: Food Preparation and Nutrition: Building on Basic Skills** To be able to build upon basic skills they have in the kitchen to broaden their knowledge of food preparation, cooking methods and making healthy choices. - Review practical Food skills from KS 2/3 such as cutting, peeling, grating (1.1, 2.1), mixing, spreading, kneading and baking (3.2) chopping, slicing, and using a range of cooking methods to apply heat (4.3, 7.4). - Introduce the Food room and how to work safely within. Emphasis on hygiene and safety. (3.2, 4.3, 7.4) - Identify all kitchen equipment stored at their stations (7.4) - To be able to recall food preparation methods such using the hob, oven and grill. (7.4) - Recall how to be safe and healthy when working with food, such as being able to identify the 4C's of food hygiene and why it's important not to cross contaminate. (7.4, 8.4)

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	- Build upon basic knowledge of practical D&T skills to include more complex activities such as correctly using a forstner bit. - Be aware of COSHH and be able to identify and discuss the importance of regulations - Know how to apply a finish to nourish and enhance a wooden object **Design:** Students are to be able to use previous knowledge of 2D design to create individualised side panels for their tool caddy. **Making:** Students are to be able to recall relevant Health and Safety protocols in the workshop and act accordingly within the space. To be able to shape, waste and smooth pre-prepared material to match as a given template as accurately as possible, improving upon skills previously learnt. Be able to watch demonstrations and follow instructions correctly to build complexity into their manufacturing knowledge and to be able to meet practical deadlines across the term and lesson by lesson. **Evaluation:** Students are to be able to evaluate their practical outcome independently for accuracy and be able to take relevant steps to improve outcome if required.	- Is able to evaluate the work of others and identify key features that work in a design and areas to improve and how this can be done. - Using CAD tools taught to develop initial designs using 2D software in the design process. - To be able to define the term 'visual identity' and why this is an important consideration for Graphic Designers. - To be able to conduct self/peer evaluations on final outcomes referencing relevant design factors such as form, function, typography, legibility and target market. . **Research:** Students are to conduct a range of primary and secondary research to identify they type of festival the student wants to create as well as showing the ability to evaluate the work of others to identify design features that work well and those the students wish to avoid. **Design:** Students are to create a range of designs including logo, ticket, t-shirt, posters and other promotional products that share a consistent visual identity. Students should be able to communicate their design ideas through visual means and annotation. **Making:** Students are to create a range of products using 2D CAD including: Logos, tickets, t-shirts, posters and promotional merchandise that would be used to advertise a festival of their choice. **Evaluation:** Students are to be able to evaluate success of final outcomes against a set criteria including what was successful, how the design represents the festival, legibility. Students are able to give and receive feedback from others against the same set criteria.	- To be able to show an understanding of the key features of having a Healthy diet and what the main food categories, nutrients and vitamins are (7.4) - To be able to identify information on a food label and what it means to help them make informed decisions on their individual food choices. - To be able to prepare ingredients using more complex cutting methods such as julienne. - To be able to shape shortcrust, puff and filo pastry using different techniques such as using tins, a knife or folding/rolling. - To be able to identify potential risks whilst shallow frying and take precautions to mitigate them. - To be able to safely control oil temperatures whilst shallow frying. **Research:** Students are to research food labelling and apply their knowledge to a range of packaged produce to identify which foods are high in proteins, carbohydrates, sugars and fats. Students will be able to use this knowledge to make informed food choices at home and in the wider world. **Making**: Students to be aware of their own and others Health and safety at all times and be able to work safely in a kitchen environment. Students are to show they are able to follow the 4C's of hygiene and be able to work cleanly in their work areas, paying particular attention to issues involving cross-contamination and food allergies. Students are able to build upon basic preparation and cooking methods from Year 7 and attempt more complexity in their dishes such as cutting julienne and shallow frying, be able to follow written recipes and work effectively as a team to complete the practical dishes within the time constraints.
	8.2 Autumn 1: Graphic Products - Festival Project	**8.4 Spring 2: Food Preparation and Nutrition: Building on Basic Skills**	**8.6 Spring 2: Systems and Control: LED light**

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	Using research methods to explore branding and advertising and be able to apply research into creating a range of products for a festival that share a common visual identity. - Review the design process including the need for researching existing designers and outcomes (4.3,5.2) - Be able to generate a range of design ideas, including annotation about form and function (5.2) - To draw upon knowledge of different CAD packages to be able to view, move, rotate, size up and group (6.1, 7.1) - Be able to conduct an,effective task analysis, breaking down a large component into design factors to consider. - To be able to analyse the work of others making reference to typography, colour choice, imagery, target market and legibility. - Is able to evaluate the work of others and identify key features that work in a design and areas to improve and how this can be done. - Using CAD tools taught to develop initial designs using 2D software in the design process. - To be able to define the term 'visual identity' and why this is an important consideration for Graphic Designers. - To be able to conduct self/peer evaluations on final outcomes referencing relevant design factors such as form, function, typography, legibility and target market. **Research:** Students are to conduct a range of primary and secondary research to identify the type of festival they want to create as well as showing the ability to evaluate the work of others to identify design features that work well and those the students wish to avoid. **Design:** Students are to create a range of designs including logo, ticket, t-shirt, posters and other promotional products that share a consistent visual identity.	To be able to build upon basic skills they have in the kitchen to broaden their knowledge of food preparation, cooking methods and making healthy choices. - Review practical Food skills from KS 2/3 such as cutting, peeling, grating (1.1, 2.1), mixing, spreading, kneading and baking (3.2) chopping, slicing, and using a range of cooking methods to apply heat (4.3, 7.4). - Introduce the Food room and how to work safely within. Emphasis on hygiene and safety. (3.2, 4.3, 7.4) - Identify all kitchen equipment stored at their stations (7.4) - To be able to recall food preparation methods such using the hob, oven and grill. (7.4) - Recall how to be safe and healthy when working with food, such as being able to identify the 4C's of food hygiene and why it's important not to cross contaminate. (7.4) - To be able to show an understanding of the key features of having a Healthy diet and what the main food categories, nutrients and vitamins are (7.4) - To be able to identify and correctly use different baking methods such as the rubbing-in method, creaming method and melting method. - To be able to identify relevant sensory words relating to food and use them appropriately during an experiment. - To be able to recognise the differences between batters and doughs and be able to communicate those differences effectively. **Making:** Students to be aware of their own and others Health and safety at all times and be able to work safely in a kitchen environment. Students are to show they are able to follow the 4C's of hygiene and be able to work cleanly in their work areas, paying particular attention to issues involving cross-contamination and food allergies. Students are able to build upon basic preparation and cooking methods from Year 7 and attempt more complexity in their dishes such as learning and using different baking methods, be able to follow written recipes and work effectively as a team to complete the practical dishes within the time constraints.	Applying fine motor and manufacturing skills to complete the circuitry for an LED light. Students are to use knowledge previously learnt to independently create an acrylic face that will catch the light. - To be able to identify and correctly use basic and moderate CAD techniques such as view, move, rotate, size up, group, boundary fill and align.(6.1,7.2,7.6) - -Students can create a series of annotated designs to better communicate their ideas.(4.1,4.2,6.1,8.2,8.3) - -Developing designs using CAD software.(6.1,7.2,7.6) - To correctly apply a finish to nourish and enhance a wooden object (8.1) - To be able to identify common electrical components such as LEDs, resistors, capacitors and transistors and be able to describe their jobs in a circuit. - Be able to recognise whether a component is polarised and be able to correctly place it in a PCB. - Be able to use the soldering irons with all Health and Safety procedures in place at all times. - Be able to understand the term 'Tinning' and its use when soldering - To be able to follow a set of instructions to correctly and independently solder an LED circuit. - If required to problem shoot any issues using a flow chart and be able to, with assistance rectify any issues. **Design:** Students are to create a range of designs for their acrylic drawing upon knowledge of the software from previously taught units. Students are to communicate their design ideas, thoughts and opinions using both visual and written means. **Making:** Students to be aware of their own and others Health and Safety at all times and be able to work safely using electronic equipment. Students are to show an understanding of polarised/unpolorised components by correctly and independently soldering them in the PCB. Students should be

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	Making: Students are to create a range of products using 2D CAD including: Logos, tickets, t-shirts, posters and promotional merchandise that would be used to advertise a festival of their choice. **Evaluation:** Students are to be able to evaluate success of final outcomes against a set criteria including what was successful, how the design represents the festival, legibility. Students are able to give and receive feedback from others against the same set criteria.	**Evaluation:** Students are able to complete a basic food science experiment using different pastries and recording information on appearance, handling and taste. Students are able to identify and use relevant food descriptive words and are able to justify opinions confidently.	able to apply paint in thin even layers to ensure a high quality finish on their PCB casing.
Year 9			
Year 9	**9.1 Autumn 1: Resistant materials -3D Design**	**9.3 Food Preparation and Nutrition: Foods from around the World**	**9.5 Resistant Materials: Pewter Casting**
	9.2 Autumn 1: Resistant materials -3D Design	**9.4 Food Preparation and Nutrition: Foods from around the World**	**9.6 ?**