KS3 DT Curriculum Mapping

Year 7						
Term	**Autumn (1)**	**Autumn (2)**	**Spring (1)**	**Spring (2)**	**Summer (1)**	**Summer (2)**
Topic(s)/ Subjects(s)	**Cube Toy** **Designing –** Analyse given product. Discussion of suitability for different ages Materials investigation. To produce a range of design ideas. To produce a paper pattern **Making** Machine sample & Seam allowance. Understand what a manufacturing plan is. Construction & add embellishment including applique, hand stitching and embroidery. **Evaluating** Emerging, developing, secured Formative and Summative Critique, evaluate and test effective self-evaluation and highlighted areas for development.	Pop-up card **Designing** To sketch out different components for their pop-up card. Look into different layers for each design Produce isometric shapes where possible to add depth to the work Shading Annotation over sketches. **Making** Production of a range of pop-up styles-box fold, v-fold, gaping mouth Accurate measurements and cutting. Use of craft knife to produce the pop-up card **Evaluation** The ability to test work through visual checks and group discussions to explain the final outcome.. Identify mistakes of other pupils work through the testing of their practical work. Identification of pupil skills and knowledge through peer assessment of work Understand how to use clients to aid in the design	**Mini Lamp** **Designing** To understand the design process and how to design products using different design. Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations techniques. **Making** To understand how to manufacture safely and with quality. Understand how basic circuits work. Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. **Evaluating** To understand why we evaluate and how to evaluate our work.	Food and Nutrition **Making:** Students learn how to work independently make Fruit and vegetable dishes with introduction to food science and the function of ingredients. Tomato sauce conduction and using the hob. Apple crumble introduction of using the rubbing in method, convention cooking and enzyme browning. Rubbing in method **Evaluating:** What your daily diet is using the reconditions of the Eat well guide How to sensory analysis savoury dishes from the Teacher's demonstration.	Ear bud Wrap **Designing** To produce a range of design ideas for their earbud wrap. To produce their final design on 2D design ready for manufacture. Produce design ideas for blister pack packaging. Produce their final packaging design. **Making** Using the laser cutter to manufacture their earbuds – can use off cuts to enhance designs – use of wax crayon to enhance details. Vacuum form blister packaging. **Evaluating** Evaluate existing products and own final product.	
Knowledge and skills (Content)	Able to function independently in the Textiles room safely Critique work against the brief Building a repertoire of skills and knowledge including • Simple patterns • Hand stitching • Hand embroidery • Materials and how they work • The sewing machine and how it works • How to sew a button • Embellishment • Seam allowance. Create detailed design proposals Apply knowledge of ACCESS FM to recommend changes to design work	Links of processes to products that are familiar to the students. Links hand coordination and measurement skills though learning of basic skills. Links understanding of engineering drawings to the use in the outside world of Design. Build understanding of materials, specifically paper and card.	Woods, electronics, and plastics theory. How to use the workshop machines correctly and safely?	How to use kitchen equipment safely, learning how to work in a team safely. Introduction to knife skills how to use bridge and claw method.	Links of processes to products that are familiar to the students. Links 2d design and laser cutting to industrial processes.	
Assessment	**Design proposals** **Stitching samples** **Evaluation** **Multiple-choice end of unit test**	**multiple-choice end of unit test**	**multiple-choice end of unit test**	**multiple-choice end of unit test**	**multiple-choice end of unit test**	

Cross Curricular Links	Science – recycling Geography – where materials come from. Maths – Lay patterns, measuring and symmetry	Math's- measurements of mm Art- Sketching ideas Engineering: Understanding of how the product can fit together to stand on its own			Maths- measuring with mm Art – sketching of ideas	
SMSC, British Values, Cultural Capital	**Areas such as target market, user centered design and sustainability are covered.**	**Areas such as target market, user centered design and sustainability are covered.**	**Areas such as target market, user centered design and sustainability are covered.**		Students regularly consider the moral aspects of the products in which they design and materials in which they use to create their product, this is shown for example in their project research and in evaluation processes.	
CEIAG	Understanding how designers considers packaging when designing products and how this affects the environment. **Understanding why manufacture are concerned about Quality assurance and quality control.** **Health and safety** **Careers within the fashion industry** **Where are they now board in the corridor.**	Understanding the purpose of basic skills and their use across curriculums. Focus on the importance of accuracy and neatness for the manufacture of a final product			Discuss careers with design and engineering	
Learning outside the classroom	Textiles club every Wednesday 3-4pm	Afterschool club Wednesday	Research and revision for end of unit test	Cooking club	Research and revision for end of unit test	
Additional Subject Specific Information	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.** • **Cotton and where it comes from** • **The sewing Machine and how it works** • **How to tie dye**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.** **Properties of paper and card homework** **How paper is made homework**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.**	

Year 8						
Term	**Autumn (1)**	**Autumn (2)**	**Spring (1)**	**Spring (2)**	**Summer (1)**	**Summer (2)**
Topic(s)/ Subjects(s)	Bottle opener **Designing** Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses. Focus on Designers and design movements to build their ability to take influences from outside sources to aid in design work. Utilization of sketching skills from Year 7 to show visible improvements with their sketches. **Making** Select from and use specialist tools, techniques, processes, equipment, and machinery precisely, The ability to work with metal (steel) a more complex and harder material. Work on further accuracy and tolerances within their work. **Evaluating** Test, evaluate and refine their ideas and products against a specification, considering the views of intended users and other interested groups. Test the product on an example bottle to test their ability to complete their task.	Architecture **Designing** Use a variety of approaches [for example, biomimicry and user-centred design, to generate creative ideas and avoid stereotypical responses. Focus on Designers and design movements to build their ability to take influences from outside sources to aid in design work. Utilization of sketching skills from Year 7 to show visible improvements with their sketches. Look into 2-point perspective for their projects Use of CAD to produce working models of the designs **Making** Modelling though card materials to produce a wide range of models To focus on producing high quality outcome models. Use of craft knives, hot glue guns, Prit sticks and superglue **Evaluating** Observe how the model fits into the map when placed down institute	Clock **Designing** use research and exploration, such as the study of different cultures, to identify and understand user needs identify and solve their own design problems and understand how to reformulate problems given to them. **Making** select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture. select from and use a wider, more complex range of materials, components, and ingredients, considering their properties. **Evaluating** test, evaluate and refine their ideas and products against a specification, considering the views of intended users and other interested groups. understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists	**Uglies** **Designing –** Analyse given product. Discussion of suitability for different ages Product development challenge (redesigning given dolls for blind child, baby, or young boy) Mind map customer needs. Materials investigation. Specification production. Morphing shapes to inform design ideas. To produce a range of Ugly doll design ideas. To produce a paper pattern **Making** Machine sample & Seam allowance. Understand what a manufacturing plan is. Construction & add embellishment including applique, hand stitching and embroidery. **Evaluating** Emerging, developing, secured Formative and Summative Critique, evaluate and test effective self-evaluation and highlighted areas for development.	Food and Nutrition **Making:** Students can independently make Fruit and vegetable dishes with an embedding into food science and the function of ingredients. Science of bread baking and pastry. Introduction of multicultural foods and special diets. Food intolerance and the law behind food packaging and serving food. Rolling and shaping pastry method. Learning to cook family meals on a budget. **Evaluating:** Understanding what is meant by childhood obesity and learning how to eat a health balance diet. What your daily diet is using the reconditions of the Eat well guide How to sensory analysis savoury dishes from the Teacher's demonstration.	
Knowledge and skills (Content)	Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions Understand the purpose and use of different metals. Identification of different metals and their use in world applications.	Understand and use the properties of modelling materials and the performance of structural elements to achieve functioning solutions Understand the purpose and use of different materials to use in conjunction with paper and card to produce the model Identification of different cards and their use in world applications		Able to function independently in the Textiles room safely Critique work against the brief Building a repertoire of skills and knowledge including • Simple patterns • Hand stitching • Hand embroidery • Materials and how they work • The sewing machine and how it works • How to sew a button • Embellishment • Seam allowance. Create detailed design proposals Apply knowledge of ACCESS FM to recommend changes to design work	The understanding why the principles of sensory analysis knowledge is important, when creating a dish on a budget. Dietary requirements for different people and religions.	

Assessment	**Multiple-choice end of unit test.**	**Multiple-choice end of unit test.**	**multiple-choice end of unit test.**	**Design proposals** **Specification** **Stitching samples** **Evaluation** **Multiple-choice end of unit test**	**multiple-choice end of unit test.**	
Cross Curricular Links	Research and revision for end of unit test	Research and revision for end of unit test	Research and revision for end of unit test	Science – recycling Geography – where materials come from. Maths – Lay patterns, measuring and symmetry	Research and revision for end of unit test	
SMSC, British Values, Cultural Capital	Student self evaluation as part of subject report, tools and equipment regularly used by students with a promoted respect for the property and care of the workshop environment. Displayed department rules and code of conduct for safe behaviour, regularly used and Student self evaluation as part of subject report, tools and equipment regularly used by students with a promoted respect for the property and care of the workshop environment. Displayed department rules and code of By nature of the subject and courses offered students are required to behave with the upmost respect for the equipment and environment which is both more expensive and requires strict health and safety considerations. referred to	Student self evaluation as part of subject report, tools and equipment regularly used by students with a promoted respect for the property and care of the workshop environment. Displayed department rules and code of conduct for safe behaviour, regularly used and Student self evaluation as part of subject report, tools and equipment regularly used by students with a promoted respect for the property and care of the workshop environment. Displayed department rules and code of By nature of the subject and courses offered students are required to behave with the upmost respect for the equipment and environment which is both more expensive and requires strict health and safety considerations. referred to	considering the views of intended users and other interested groups. understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.	**Areas such as target market,** **user centered design and sustainability are covered.**		
CEIAG		Discuss careers with design and engineering		Understanding how designers considers packaging when designing products and how this affects the environment. **Understanding why manufacture are concerned about Quality assurance and quality control. Health and safety** **Careers within the fashion industry** **Where are they now board in the corridor.**		
Learning outside the classroom		Afterschool club Wednesday		Textiles club every Wednesday 3-4pm	Food club	
Additional Subject Specific Information	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such as Iterative design, environmental considerations and food miles are included**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such as Iterative design, environmental considerations and food miles are included**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such as Iterative design, environmental considerations and food miles are included**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.** • **Cotton and where it comes from** • **The sewing Machine and how it works** • **How to tie dye**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such as Iterative design, environmental considerations and food miles are included**	

Year 9						
Term	**Autumn (1)**	**Autumn (2)**	**Spring (1)**	**Spring (2)**	**Summer (1)**	**Summer (2)**
Topic(s)/ Subjects(s)	Moving toy Designing use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses Making select from and use specialist tools, techniques, processes, equipment, and machinery precisely, Evaluating test, evaluate and refine their ideas and products against a specification, considering the views of intended users and other interested groups	Desk Tidy **Designing** To produce a range of design ideas for their desk tidy. To produce their final design on 2D design ready for manufacture. Use a range of materials, different parts to enhance their designs. Use of accuracy to assemble together without glue. **Making** Using the laser cutter to manufacture their desk tidy – can use off cuts to enhance designs – use of wax crayon to enhance details. **Evaluating** Evaluate existing products and own final product.	Passive speaker Designing Use research and exploration, such as the study of different cultures, to identify and understand user needs identify and solve their own design problems and understand how to reformulate problems given to them. Making Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties. Evaluating test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups. understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers, and technologists.	Challenge cube Designing Research and design a cube for a particular target market and use be that for a small child's development to a cube that decides the fitness regime you do to a toy to challenge and entertain a pet. The 2 design ideas will demonstrate the student understands the need of the user while aiming for unique and original design work. Making 6 Different skills for each side of the cube plus construction, this can be • Applique, • tropunto, • Embroider, • Sublimation printing, • fabric felt tip pens, • weaving • pleating • gathering, this will lead to using specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. Evaluating Formative and Summative Apply knowledge of ACCESS FM to recommend changes to design work. Suggesting and implementing improvements to final work. Emerging, Developing, Secured	Food and Nutrition **Designing:** Pastry product and celebration cakes for a family. The student needs to plan how to make a seasonal cake in the time required. Students need to be able to work to a brief. Looking at food province **Making:** Pastry – to understand the processes of baking, rubbing in and the functions of ingredients when making pastry. Cake making - to understand the four methods of cake making and the principles of what makes the cake rise introduction to KS4 food science **Evaluating:** Savoury dishes from the Teachers demonstration. understand what is meant by at food province and Food security.	
Knowledge and skills (Content)	understand and use the properties of materials and the performance of structural elements to achieve functioning solutions understand how more advanced mechanical systems used in their products enable changes in movement and force	Links of processes to products that are familiar to the students. Links 2d design and laser cutting to industrial processes.		Function independently in the Textiles room safely using various technical skills & equip. Accuracy Selecting from a wider, more complex range of materials, components regarding what technique suits the design and intended outcome best.	A deeper understanding of sensory analysis in mass production foods and looking at how a food product is designed for the consumer.	
Assessment	**multiple-choice end of unit test.**	**multiple-choice end of unit test.**	**multiple-choice end of unit test.**	**Specification** **Machine stitching samples** **Design proposals** **Planning** **multiple-choice end of unit test.**	**multiple-choice end of unit test.**	
Cross Curricular Links	Maths – measuring English reading and following	Maths- measuring with mm Art – sketching of ideas		Math's- dice English – extended writing for evaluation	English-Reding recipes and comprehension.	

	instructions				Humanities- Looking at diets for different religions. Math's-weighing and measuring ingredients.	
SMSC, British Values, Cultural Capital	Providing opportunities for students to be and explore creativity and use their imaginations. Throughout curriculum areas in design development and modelling exercises. All students within the subject area are made aware of the health and safety issues regarding the use of practical environments valuing others and tolerance of piers is essential to maintaining this safe working environment and is prompted across subject areas and key stages.	Students regularly consider the moral aspects of the products in which they design and materials in which they use to create their product, this is shown for example in their project research and in evaluation processes.		Students are encouraged to explore sustainability of materials and consider the social, moral, and cultural issues when looking at the user groups for their products. Student self evaluation as part of subject report, tools and equipment regularly used by students with a promoted respect for the property and care of the classroom environment. Displayed department rules and code of conduct for safe behavior, regularly used and referred to.	Students at KS3 in food technology look at recipes and ingredients from other cultures and explore creating menus and making dishes inspired by what they have found out. Students explore other cultures within project research before designing their own items. Encouraging all students to work co-operatively across age and friendship groups Facilitating students in the resolution of tensions which arise in busy practical environments with piers by channeling frustrations in the problem solving based subject content and active learning of design and technology	
CEIAG	Discuss careers with design and engineering			Information on option choices, careers within the DT feild of study. Mapping out of where Textiles can lead for further education and work. Posters in the corridor Video from DATA shown.	Careers lesson on the food industry as a whole. Carees board display.	
Learning outside the classroom	Research and revision for end of unit test	Research and revision for end of unit test		Textiles club	Cooking club	
Additional Subject Specific Information	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such Ergonomics, mechanisms and the work of other designers are included in the task.**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic.**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such Ergonomics, mechanisms and the work of other designers are included in the task.**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such** • **Fashioned from Nature** • **Label - Wash Codes** • **Sustainability**	**An extended homework task is set at the start of each project, each task covers materials and manufacturing relating to the given topic. Areas such Ergonomics, mechanisms and the work of other designers are included in the task.**	