Subject: D&T KS3

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS3	**Year 7** 2 lessons per week – One lesson of Resistant Materials / Graphics for the entire year One lesson of Textiles / Food (19 weeks of each)	**Graphics** Drawing skills- isometric, orthographic, sketching, rendering.	**Graphics** Surface finishes-use of the laser cutter, vinyl cutter and various graphic effect surface finishes tailored to a christmas product for a specific target user.	**Graphics** Inclusivity within design and 3D printing / tinkercad	**Graphics** Surface finishes-use of the laser cutter, vinyl cutter and various graphic effect surface finishes tailored to a christmas product for a specific target user.	**Graphics** Drawing skills- isometric, orthographic, sketching, rendering	**Graphics** Inclusivity within design and 3D printing / tinkercad
		RM Health and safety in the workshop. Structures - team project developing understanding of forces and construction.	**RM** Materials properties and types - Timber, Metals and Polymers. Plastic memory decoration. Anthropometrics	**RM** Plastic memory decoration. Anthropometrics. Timbers - Wooden dormouse doorstop. Skills in using hand tools and machines in the workshop. Electronics using Tinkercad.	**RM** Health and safety in the workshop. Structures - team project developing understanding of forces and construction.	**RM** Materials properties and types - Timber, Metals and Polymers. Plastic memory decoration. Anthropometrics.	**RM** Plastic memory decoration. Anthropometrics. Timbers - Wooden dormouse doorstop. Skills in using hand tools and machines in the workshop. Electronics using Tinkercad.
		Food & Nutrition Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.	**Food & Nutrition** Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.	**Food & Nutrition** Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.	**Food & Nutrition** Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.	**Food & Nutrition** Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.	**Food & Nutrition** Safety in the food room. Food hygiene and safety. Specialist tools and equipment. Food science investigations and practical cooking lessons.

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Textiles What are textiles used for? Source of raw materials for natural and man-made textiles including sustainability. Fabric construction; spinning; weaving; knitted and non-woven textiles.	**Textiles** Felt making, patchwork, quilting, embroidery, using a sewing machine, measuring, marking and cutting fabrics.	**Textiles** Mini design and make project: Tie-dye bag	**Textiles** What are textiles used for? Source of raw materials for natural and man-made textiles including sustainability. Fabric construction; spinning; weaving; knitted and non-woven textiles.	**Textiles** Felt making, patchwork, quilting, embroidery, using a sewing machine, measuring, marking and cutting fabrics.	**Textiles** Mini design and make project: Tie-dye bag
KS3	**Year 8** Five lessons per fortnight – rotating through the specialist areas - Food, Textiles, Graphics and Resistant Materials (9 week rotation)	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) using 2D design further skills and laser cutting.	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) using 2D design further skills and laser cutting.	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) using 2D design further skills and laser cutting.	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) using 2D design further skills and laser cutting.	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) 2D design further skills and laser cutting.	**Graphics** Using biomimicry and mathematical principles of symmetry, rotation and tessellation as inspiration to design, develop and model the lid of a box (base to be made in RM) 2D design further skills and laser cutting.
		or **RM -** Practical skills and knowledge of workshop tools and equipment. Make an open box in preparation for the lid from graphics.	or **RM -** Motion - levers, linkages and cranks mechanisms. Electronic - Inputs/outputs and logic gates.	or **RM -** Practical skills and knowledge of workshop tools and equipment. Make an open box in preparation for the lid from graphics.	or **RM -** Motion - levers, linkages and cranks mechanisms. Electronic - Inputs/outputs and logic gates.	or **RM -** Practical skills and knowledge of workshop tools and equipment. Make an open box in preparation for the lid from graphics.	or **RM -** Motion - levers, linkages and cranks mechanisms. Electronic - Inputs/outputs and logic gates.
		or **Food & Nutrition–** Meat safety, Staples,	or **Food & Nutrition–** Meat safety, Staples,	or **Food & Nutrition–** Meat safety,	or **Food & Nutrition–** Meat safety, Staples,	or **Food & Nutrition–** Meat safety, Staples,	or **Food & Nutrition–** Meat safety, Staples,

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Special dietary needs,Pastry investigation. Practicals.	Sauces and Gelatinisation of starch,Special dietary needs,Pastry investigation. Practicals.	Staples,Sauces and Gelatinisation of starch Special dietary needs,Pastry investigation. Practicals	Special dietary needs,Sauces and Gelatinisation of starch.Pastry investigation. Practicals.	Sauces and Gelatinisation of starch,Special dietary needs,Pastry investigation. Practicals.	Special dietary needs,Pastry investigation.Practicals.
		or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery. Develop machine and hand sewing skills, pattern making and enlarging a design.	or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery. Develop machine and hand sewing skills, pattern making and enlarging a design.	or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery. Develop machine and hand sewing skills, pattern making and enlarging a design.	or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery. Develop machine and hand sewing skills, pattern making and enlarging a design.	or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery. Develop machine and hand sewing skills, pattern making and enlarging a design.	or **Textiles** Design and make a cuddle cushion using the techniques of applique and hand embroidery.Develop machine and hand sewing skills, pattern making and enlarging a design.
KS3	**Year 9** Four lessons per fortnight – rotating through the specialist areas - Food, Textiles, Graphics and Resistant Materials	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.	**Graphics** Using mathematical, fine measuring and marking out skills to layout a card net. Developing a design through testing. Personal identity explored by thinking about target users. Advanced cardboard engineering skills to design and produce a mechanical card frame.
		RM - Practical skills and knowledge of workshop tools and	**RM -** Practical skills and knowledge of workshop tools and	**RM -** Practical skills and knowledge of workshop tools and	**RM -** Practical skills and knowledge of workshop tools and	**RM -** Practical skills and knowledge of workshop tools and	**RM -** Practical skills and knowledge of workshop tools and

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		equipment. Sustainability - reusing, upcycling acrylic - open context -Hanging Decoration. Motion - Cams, pulleys and Gears Electronics - Microcontrollers and systems.	equipment. Sustainability - reusing, upcycling acrylic - open context - Hanging Decoration Motion - Cams, pulleys and Gears Electronics - Microcontrollers and systems.	equipment. Sustainability - reusing, upcycling acrylic - open context - Hanging Decoration. Motion - Cams, pulleys and Gears. Electronics - Microcontrollers and systems.	equipment. Sustainability - reusing, upcycling acrylic - open context -Hanging Decoration Motion - Cams, pulleys and Gears Electronics - Microcontrollers and systems.	equipment. Sustainability - reusing, upcycling acrylic - open context - Hanging Decoration Motion - Cams, pulleys and Gears Electronics - Microcontrollers and systems.	equipment. Sustainability - reusing, upcycling acrylic - open context - Hanging Decoration Motion - Cams, pulleys and Gears Electronics - Microcontrollers and systems.
		or **Food & Nutrition –** Vegetarianism and Vegetarian products,Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science investigation using yeast in bread making. Practicals	or **Food & Nutrition** –Vegetarianism and vegetarian products,Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science investigation using yeast in bread making. Practicals	or **Food & Nutrition**–Vegetarianism and vegetarian products, Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science investigation using yeast in bread making. Practicals	or **Food & Nutrition** –Vegetarianism and vegetarian products,Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science investigation using yeast in bread making. Practicals	or **Food & Nutrition**–Vegetarianism and vegetarian products, Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science investigation using yeast in bread making. Practicals	or **Food & Nutrition**–Vegetarianism and vegetarian products, Sustainability issues in Food ,Smart shopping, Food Labelling and nutritional labelling . Food science using yeast in bread making. Practicals
		or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching	or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching	or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching	or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching	or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching	or **Textiles** - Expressing cultural identity with textiles. Methods of printing onto fabric - batik, shibori, dye sublimation, and block. Investigating existing products and researching

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.	fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.	fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.	fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.	fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.	fastenings. Developing CAD skills using 2D design. CAM vinyl cutting. Developing machine sewing skills making a zipped purse and inserting a zip.

Subject: FOOD & NUTRITION

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS4	Year 10	**Practical skills** Knife skills.Bread, Leavened and unleavened,Pastry making	**Practical skills** Knife skills, pasta, sauces, cakes, christmas cooking	**Practical skills** Choux Pastry, knife skills. meat cooking.	**Practical skills** Knife skills,Filleting fish,puff pastry	**Practical skills** Knife skills, multi cultural dishes	**Practical skills** Knife skills, Mouses, chilled desserts.
		Nutrition, Health and Food Science Eatwell guide Macronutrients Chemical and physical properties of Nutrients. e.g Proteins Micronutrients Nutrition throughout different life stages	**Nutrition, Health and Food Science** Food Safety & hygiene Enzymes Experiment.Enzymic browning Food poisoning Microorganisms Meat & Fish Structure/Nutritional value/Tenderising/ Cuts/Preparing	**Nutrition, Health and Food Science** Functions of different ingredients Experiment Sauces Transfer of heat & cooking of food Experiment. Plasticity of fats Conduction convection Radiation	**Nutrition, Health and Food Science** Food Choice Foods from different cultures Special Dietary Needs Food allergies and intolerances	**Nutrition, Health and Food Science** Food provenance Additives Food processing Yoghurt making Food packaging Labelling	**Nutrition, Health and Food Science** Food preservation Different methods and effect on nutritional value End of year exam Practice Practical exam

		Bread making Gluten Yeast	Cake making: Functions of basic ingredients,	Effect of cooking on sensory characteristics of food.			
	Year 11	NEA 1 A written investigation chosen from a selection set by the exam board (1,500–2,000 words) to show understanding of the working characteristics, functional and chemical properties of ingredients	NEA 2 An in-depth study into an area of Food and Nutrition of particular interest leading up to a 3-hour **practical exam** follows	NEA 2 An in-depth study into an area of Food and Nutrition of particular interest leading up to a 3-hour **practical exam** follows	Revision/preparing for the written paper	Revision/preparing for the written paper	Revision/preparing for the written paper

Subject: D&T KS4 – Product Design

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS4	Year 10	**Specialist theory**: Selection of materials, sources and origins, stock forms, Ecological concerns and equipment. Joints, material management, tolerances, Design movements and designers. **Drawing skills:** Freehand, Orthographic, one and two point perspective. **Practical skills:** Test pieces using hand tools and machinery. Decoration techniques.	**Specialist theory**: Health and Safety, Forces, Quality,Processes and forming. Components. Knock down fittings. Working drawings. Schematic. Specialist tools. **Revision Card Box** - Working with timber skills: Various joints. Use of Laser cutter for decoration.	**Communication skills:** Design presentation. Freehand, layout, Isometric, Third angle. Mini project: **Children's Furniture** **Specification covered**: Research skills. Modelling skills. Commercial processes Product analysis, identifying clients, materials, manufacturing techniques. Ecological and social footprint. Scales of manufacture.	Mini project: **Children's Furniture** **Communication skills:** Design presentation. Freehand, layout, Isometric, Third angle. **Specification covered:** New and Emerging Technologies. Smart materials.	**Theory: -** Energy. Developing new materials. Systems. Mechanisms - Linkages, gears, chain and sprocket, pulleys and belts. Wood forming: **Spatula**	**NEA (Non- Exam Assessment) A design & make project consisting of a folder of approximately 20 x A3 pages and a final prototype. The examination board (AQA) set three different contexts each year. Students choose one. Worth 50% of the GCSE.**
	Year 11	NEA continues	NEA continues	NEA continues until February	Core theory on all material areas Designing and making principles preparing for the exam	Core theory on all material areas Designing and making principles preparing for the exam	Optional revision sessions

Subject: D&T KS4 - Textiles

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS4	Year 10	Specialist textiles foundation skills and knowledge - practical and theory based. Sources and origins, fabric construction, joining fabrics and properties of materials. Make a MorsBag to apply skills and knowledge, foster independence, problem solving and time management. Assessment 1	Specialist textiles foundation skills and knowledge - practical and theory based. **Victoria & Albert Museum trip** Forces and stresses,, the work of others, surface treatments and finishes, commercial processes, scales of manufacture, shaping and forming. Assessment 2	Environmental and social issues, new and emerging technologies, e-textiles. Wool4school competition Assessment 3	Wool4school competition Mini NEA - sports bra Designing and making principles CAD/CAM embroidery Dye sublimation printing Assessment 4	Mini NEA - sports bra Designing and making principles Communication of design ideas Investigating using primary and secondary data Assessment 5	**End of Year assessment** **New Designers trip** **NEA launch** (Non-Exam Assessment) A design & make project consisting of a folder of 20 x A3 pages and a prototype. The examination board (AQA) set three different contexts each year. Students choose one. Worth 50% of the GCSE. **A - Analysing the context and identifying a target user**
	Year 11	**NEA** **B** Writing a design brief and specification **C** Generating ideas	**Mock exam** **NEA** **D** Development of ideas	**NEA** **E** Realising design ideas **F** Testing and evaluating **GCSE NEA showcase**	**Preparing for the exam** Core theory on all material areas Designing and making principles	**Preparing for the exam** Core theory on all material areas Designing and making principles	Revision sessions

Subject: FASHION

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS5	Year 12	Understanding of the A Level course, assessment criteria, projects etc. Fashion Inspired by Architecture project Drawing skills and printmaking	Virtual Fashion Trip to Paris - using a variety of Parisian sources to create textiles samples, artwork and fashion designs. Understand how inspiration can come from looking at past fashions.	Westwood inspired Corset project Mock Exam introduction Designer / artist research Moodboard Further Experimentation and Fashion design ideas	Toile development Final Design Idea	Understand how inspiration can come from looking at past fashions. • Fashion Design • Pattern cutting • Print design	Commence the Personal Investigation (a major coursework project worth 60% of the Final A Level): • Primary and Secondary research • Experimenting with textile techniques to develop the theme
	Year 13	Primary and Secondary research. Designer/artist research. Experimentation Related Study (an extended piece of writing of approx. 1500-3000 words, that relates to the theme of the Personal Investigation)- one lesson a week throughout the Autumn Term	Related study continues Completing the final garment for the Personal Investigation	Completing Personal Investigation Exam - Primary and Secondary research. Designer/artist research. Experimentation	Toile development. Final design idea		