Design and Technology Intent Table

DESIGN TECHNOLOGY KS3	**Develop technical knowledge**	**Iterative design and emerging technologies**	**Develop practical skills**	**Develop creative and innovative thinking and problem solving**	**Understanding the world around us**	**Decision making with a conscience**
Year 7	***Learning about the origins of materials and food.***	***Designing for yourself or given user.***	***Learning how to work safely and hygienically with a wide range of tools, processes and machines.***	***Developing confidence and independence in practical tasks.***	***Understanding our own self-worth and our impact on the environment.***	***Understanding about waste and working within constraints and tolerances.***
DT	Understanding that materials are natural and manmade and being able to identify their sources.	Focused practical task (FPT)-wooden key rack, sublimation printed small phone stand/storage item, CAD/CAM earbud wrap and packaging.	Safety in the workshop through FPT's. Use of Pillar drill and jigs, hand drill, tenon and coping saws, files and sand paper, heat press, strip heater, laser cutter, Tech soft 2D, vacuum former, craft knife.	FPT's start of very teacher led, step by step to get students used to using the equipment confidently and safely. As students feel confident they can adapt and personalise the practical tasks, using different tools and materials.	Evaluation of practical sessions and end products, focussing on strengths and targets. Peer evaluation of tasks. Discussions	Working to constraints, cutting materials to specific sizes, accurate measuring and marking.
Food	Safety & Hygiene; Students able to work in the food room. The use of the cooker Current healthy eating guidelines.		General Knife Skills Preparing fruit & vegetables: coleslaw and fruit crumble. Cooking methods: grilling, baking (boiling) Prepare, combine and shape: goujons and savoury muffins.	Greater confidence & independence working in the kitchen. Development of key skills.	Use of seasonal ingredients.	Accurate measurements to ensure quality products.

Textiles	Safety-students introduced to specialist equipment. Students taught a range of techniques that will be used to create a diary cover	Focused practical tasks - designing a book cover demonstrating a range of decorative techniques and processes.	Safety in the classroom. Introduction to basic equipment including the sewing machine, iron, pins, scissors.	By the end of the Textiles rotation students should be able to operate a sewing machine independently and understand specialist techniques such as applique/couching/embroidery	Use of recycled fabrics	Accurate measurements to ensure quality products
Year 8	***Understanding the properties and functions of a range of materials and foods.***	***Identifying a client/consumer and their needs. Testing products and gaining client feedback.***	***Developing a range of decorative and functioning practical skills and processes to include soldering and the use of CAD/CAM.***	***Batch production processes. Designing with constraints. Team work and collaborative design.***	***Sustainable design and informed decision making. The effect of food choice on health and environment.***	***Sustainability in design-the 6R's and how they apply to products and materials and the decisions we make as consumers.***
DT	DT-material properties linked with focused practical tasks such as vacuum forming, plastics thermoforming and thermosetting, woods	Working to a given design brief, designing for a company, researching the company's brand and design ethos. Product analysis of existing products to inform ideas. Writing a	Electronics-USB kit, introduction to soldering and circuits. CAD/CAM designs and embellishments on a frame inspired by cultures. Wood joints-including lap joint and mitre joints.	Team work to design and manufacture a batch of lamps. Discussions about constraints and production methods. Quality control measures to ensure work is within tolerances.	Understanding of consequences and limited natural resources. The impact we have as consumers on the environment and how we	Use of the 6 R's as the foundation of the first project. Restricted materials per team, problem solving to produce a prototype in restricted time. Using recycled/reused materials within the design.

		specification and evaluating against it. Iterative design processes and team work.			can minimise our impact.	
Food	Basic nutrition Food Commodities	Importance of starchy carbohydrates and energy balance.	**Key focus:** **Use of equipment:** Dutch apple cake: electric whisk, Pasta Bake: Food processor to make breadcrumbs **Cooking Methods:** Cheese and potato pie: boiling **Prepare, combine and shape:** Bread rolls, cheese and potato pie, cheese scones Sauce making: Pasta Bake: Starch based all-in –one. Bolognese: reduction sauce. **Dough:** Bread and scones **Raising agents:** Dutch apple cake using the creaming method (Mechanical	Developing uniformity in batch baking.	Seasonal food	Food Waste

			and chemical) and bread (Biological)			
Textiles	Understanding how inspiration can be taken from nature to inspire art/textiles. Introduction of new techniques that are used to colour, decorate and embellish materials.	Focused practical tasks designing a cushion cover demonstrating a range of decorative techniques and processes and taking inspiration from nature. Students to learn the new technique 'tie & dye'	Safety in the classroom. Introduction to basic equipment including the sewing machine, iron, pins, scissors. Introduce dying fabrics and techniques to add colour and texture	To work independently on sewing machines and select appropriate tools and materials to create a practical outcome. Students to produce a unique and creative outcome that builds on the skills learnt in Year 7.	Organic cotton/ Sustainable fashion	Accurate measurements to ensure quality products. Homework linked to the impact of 'throw away fashion'