

Month		Rotation 1	Rotation 2	
Cultural Transmission	Units of Work	Technical Knowledge & Research Safe working Recognising tools & machinery Design Introduction to Project: garden animal habitats Sketch work and Scale Models Templates and Design Technical Knowledge & Research Existing Organisations and Product Design Environmental considerations Marketing and Design Making Selecting suitable materials Prepare materials Manufacture the product Assembly and Finish of the product Finishing and aesthetics Evaluate and Present	Technical Knowledge & Research Safe working Recognising tools & machinery Design Introduction to Project: garden animal habitats Sketch work and Scale Models Templates and Design Technical Knowledge & Research Existing Organisations and Product Design Environmental considerations Marketing and Design Making Selecting suitable materials Prepare materials Manufacture the product Assembly and Finish of the product Finishing and aesthetics Evaluate and Present	
	National Curriculum area – KS3	Making a. Using Tools Safely, Selecting and measuring/markings b. Assembling Final Product c. Understanding 'Fit for purpose' d. Health and Safety Research a. Information from marketing and design campaigns b. Research environmental issues and health and safety c. Planning diary d. Gather information Designing a. Using pictures and words to communicate design needs. b. Sketches and models Evaluation a. Work as it develops b. Make changes as necessary c. Like and Dislike about my final product d. Compare to similar products e. Recommend Changes to final Product	Making a. Using Tools Safely, Selecting and measuring/markings b. Assembling Final Product c. Understanding 'Fit for purpose' d. Health and Safety Research a. Information from marketing and design campaigns b. Research environmental issues and health and safety c. Planning diary d. Gather information Designing a. Using pictures and words to communicate design needs. b. Sketches and models Evaluation a. Work as it develops b. Make changes as necessary c. Like and Dislike about my final product d. Compare to similar products e. Recommend Changes to final Product	
	Substantive Knowledge	<b>The What!</b> As learners join Year 8 they enhance their understanding of product design by exploring technology and identity, in the commercial world. They investigate and research organisations such as Dyson, Apple, Tesla from the modern era and compare them to classic ground-breaking companies like Tupperware, Ford and Amstrad. Through comparison and analysis of real-life examples learners will test, trial and collect data from users of the products.		
	Disciplinary Knowledge	<b>The How!</b> The students will build on their disciplinary skills from Year 7 through designing a 'garden animal habitat' using recyclable and environmentally friendly materials. They will further develop their research and analytical skills as they discover and evaluate existing products. Students will create a prototype of their design from recyclable materials and use this to further develop and make improvements to their project. They will learn to use hand and machine tools to build their products and develop their understanding of manufacturing from Year 7. Students will learn how to aesthetically finish their product and how to then market and brand their finished product.		
	Sequencing (Flow)	<b>Retrieval &amp; Extension</b> Making a. Using Tools Safely, Selecting and measuring/markings b. Assembling Final Product c. Understanding 'Fit for purpose' d. Health and Safety Research a. Information from marketing and design campaigns b. Research environmental issues and health and safety c. Planning diary d. Gather information Designing a. Using pictures and words to communicate design needs. b. Sketches and models Evaluation a. Work as it develops b. Make changes as necessary c. Like and Dislike about my final product d. Compare to similar products e. Recommend Changes to final Product Builds From - Introduction to product design. - Making a plant holder is further developed to. - designing of a garden animal habitat in half term 2, designing of a bridge in Year 9 - making of the garden animal habitat in term 2, making of a bridge/prototype in Year 9		
	Summative Assessment	Students will have a summative assessment on materials and tools. Student's summative assessment will be their final product.		
	Personal Empowerment	Virtue	1. Friendliness and Civility (September) 2. Justice and Truthfulness (October) 3. Courage (November) 4. Generosity (December) 5. Gratitude (January) 6. Good Speech (February)	1. Good Speech (February) 2. Good Temper (March) 3. Self-Mastery (April and May) 4. Compassion (June) 5. Good Sense (July)
		Link to Virtue	The opportunity to reflect, think deeply and critically about an issue. Friendliness and Civility – Peer support in training in the workroom, understanding health and safety. Sharing of tools, peer-assessing tool skills Justice and Truthfulness – When reviewing own work, understanding how false advertisement might damage a products viability. Courage – using machine tools and electric tools. Generosity – allowing peers to use tools at busy periods Gratitude – Appreciation of products and how they have solved everyday problems Good Speech – Delivering a presentation	Good Speech – Being honest about their skills and confidence levels with tools and machinery they are learning about. Good Temper & Good Humour – Looking at the product issue, and coming up with a design solution to meet the brief. Self –Mastery – Independent design and production of Birdbox, keeping to a timetable. Compassion – Looking after the wildlife and eco system. Good Sense – Use of tools and keeping safe in the work room environment.
	Preparation for Work	Skill	1. Listening (September) 2. Leadership (October) 3. Problem Solving (November) 4. Creativity (December) 5. Staying Positive (January) 6. Speaking (February)	1. Speaking (February) 2. Staying Positive (March) 3. Aiming High (April and May) 4. Speaking (June) 5. Teamwork (July)
		Link to Skill	Listening – to instructions in the DT workroom to keep yourself and other safe. Leadership – Lead on presentation of a product, then leading on their own design and product. Problem Solving – produce a design brief and specification which solves the problem of encouraging wildlife in to urban dwellings. Creativity – A creative, yet appropriate design for a product that uses imagination. Staying Positive – Using feedback in a positive way relating to the design of products or tools Speaking – Oracy in presentation of idea.	Speaking – Oracy in presentation of idea. Staying Positive – Using feedback in a positive way relating to the design of products or tools Aiming High – Looking for the best outcome for each product problem. Speaking – Oracy in presentation of idea Teamwork – Support each other to make sure everyone has time to use the workroom to meet their deadline.
Preparation for Citizenship	SMSC & British Values	An appreciation that living under the rule of law protects individual citizens and is essential for their wellbeing and safety. Encourage students to accept responsibility for their behaviour, show initiative, and to understand how they can contribute positively to the lives of those living and working in the locality of the school and to society more widely		
	Link to SMSC & British Values	Working safely and designing products that solve a problem.		