

“Good buildings come from good people, and all problems are solved by good design.” Stephen Gardiner

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Design & Technology at Farmor’s is a fundamental subject that underpins the curriculum of other subjects such as Maths, Science, Engineering and Art. Design and Technology education makes an essential contribution to the creativity culture, wealth and well-being of the nation. We cover a range of theory and practical skills to enable students to have an inclusive experience that is informative of the world around us focussing on current real-life issues such as the environment as well as user centred design.

We feel it important that students experience not only practical skills but also understand the ‘why’ in what we are teaching and how it is important. This is supported by theory such as researching, problem solving and studying the work of others as well as analysis. We encourage creativity and imagination so students have autonomy of their outcomes. Design and Technology students stay with their teacher all year round and experience all specialist areas that are involved in the subject this includes CAD/CAM, electronics as well as wood, plastic and metal, we encourage sustainability in line with the wider world needs and sometimes use recyclable materials to make products.



	Term 1		Term 2		Term 3		Term 4		Term 5		Term 6	
<p>Year 7</p> <p>Unit 1: Sustainable toys</p> <p>Unit 2: Pixar Maze Game</p>	Technical knowledge	Research	Design	Make	Evaluate	Technical knowledge	Research	Design	Make	Evaluate		
	3D and tonal shading Tools & equipment Paper sizes uses and working properties Sources & origins Interactive mechanisms Motions Sustainability	Children's Animated films Haruki Nakamura Specification Survey	Prototyping Drawing techniques Rendering/fine liner Design selection of mechanisms Planning and preparation of making	Health & Safety Craft knife Suitable material choices Quality of outcome, working mechanisms and properties	Testing and evaluating Testing against the specification.	Isometric drawing Drawing to scale How components in a sensor circuit work Tolerance Thermoforming and Thermosetting Polymers (HIP's) Vacuum forming Modelling Techniques Freehand Sketching	Pixar animated films Questionnaire for user group feedback Applications for sensor circuits	Designing a layout to scale Drawing electrical circuits using correct symbols Using Isometric drawing to communicate in 3D	Soldering a simple circuit Soldering Iron Vacuum Former Make a wooden/plastic in e former that can be vacuum formed	Testing of final product thinking about: Tolerance LDR circuit Success with following theme		



Farmor's School Design & Technology Department



		Term 1		Term 2		Term 3		Term 4		Term 5		Term 6	
<p>Year 8</p> <p>Unit 3: Plastics and oceans</p> <p>Unit 4: Save the Bees</p>	<p>Technical knowledge</p> <p>Sustainability</p> <p>6R's</p> <p>The role of the designer</p> <p>Renewable and non-renewable resources</p> <p>Greenhouse effect</p> <p>Life Cycle Assessment</p> <p>Polymers</p>	<p>Research</p> <p>Plastics in oceans</p> <p>Boyan Slat</p> <p>4 Oceans</p> <p>Packaging symbols</p> <p>Environmental impacts</p> <p>FSC</p>	<p>Design</p> <p>3D & tonal shading</p> <p>Isometric drawing</p> <p>Fonts & typography</p> <p>Colour context</p>	<p>Make</p> <p>H&S of equipment</p> <p>Quality control</p> <p>Communication & planning</p>	<p>Evaluate</p> <p>ACCESSFMM</p> <p>Evaluating the work of others</p>	<p>Technical knowledge</p> <p>Biodiversity</p> <p>Monoculture</p> <p>Natural Timbers</p> <p>Tools & Equipment</p> <p>Polyculture</p> <p>Production methods</p>	<p>Research</p> <p>The decline of Bumble Bees.</p> <p>David Attenborough</p> <p>Fairford Town</p> <p>Bee scheme</p> <p>Existing products</p>	<p>Design</p> <p>Generate design ideas</p> <p>1pt & 2pt perspective drawing</p> <p>Exploded views</p> <p>Annotation & Labelling</p>	<p>Make</p> <p>Making a nature house from natural resources</p> <p>Butt joints</p> <p>Cardboard modelling</p>	<p>Evaluate</p> <p>Evaluating the work of others</p> <p>Evaluation of modelling</p>			



		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6			
Year 9 Unit 5: Fixperts Unit 6: Cities in the ocean	Technical knowledge	Research	Design	Make	Evaluate	Technical knowledge	Research	Design	Make	Evaluate
	3D & Tonal shading Ergonomics & anthropometrics Simulating the constraints of the user Iterative design ACCESSFM Design brief and specification Production methods	Consumer research Existing products on the market Sustainable packaging companies	SCAMPER Iterative design Isometric drawing Orthographic drawing SOAR Annotation Exploded views	Prototyping Modelling foam Tools & equipment	Evaluate against user centred design specification	Overpopulation (housing, pollution, global warming, extreme weather conditions) Fossil fuels versus renewable energy Timber & metal (properties and finishes) Biomimetics Smart technology	Multi-functional furniture Microalgae building exteriors Farms of the future Plastic roads	Designing to scale Orthographic drawing	3D modelling (card prototype) Modelling using suitable material choices for given situation	Peer evaluation of ideas Group presentation of final product to class



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10						Start of NEA
Year 11	.NEA	NEA	NEA	Revision	Revision	

