

# Fareham Academy Design & Technology Overview – Year 9

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic(s)	Sweet Dispenser	Sweet Dispenser	Whirlygig: The Solent	Whirlygig: The Solent	Whirlygig: The Solent	LDR Night Light
Topic Objectives	Investigate the four motions.  Investigate mechanisms to inform design.  Create a range of design ideas using research.	Apply Isometric and Orthographic drawing techniques to present ideas.  Create final products.	Investigate 'The Solent'.  Create a 'rich picture' to show research outcomes.  Explore levers and linkages.  Create specification.	Create a final Design Proposal.  Manufacture component parts.	Create mechanism.  Manufacture an in-built tolerance.  Assemble component parts.	Investigate electronic product components.  Explore circuits and breadboarded design and manufacture a casing.
Acquired Knowledge/Skills	Investigating motions and mechanisms will result in appropriate modelled solutions.  Create appropriate design ideas.	Communicate a final design using a variety of design methods.  Manufacture final products.	Recognise and recall 'The Solent' ideas.  Create rich pictures to demonstrate knowledge.  Apply mechanism research to inform designs.  Specification shows clear and justified intent.	Create a final design proposal which is informed and successfully presented.  Materials are cut and prepared in preparation for assembly.	Apply specific tools and equipment to manufacture and assemble parts.  Evaluate specification against the product outcomes.	Investigate electronic components, their symbols and physical appearance.  Explore circuit rapid prototyping to create basic circuitry.  Vacuum form a casing.
Assessments	Formative assessment: - Investigate - Design - Making - Evaluating	Summative assessment: Sweet dispenser outcomes	Formative assessment: - Investigate - Design - Making - Evaluating	Formative assessment: - Investigate - Design - Making - Evaluating	Summative assessment: Whirlygig outcome	Formative assessment: - Investigate - Design - Making - Evaluating Summative assessment: LDR Night Light outcome