

# Fareham Academy Design & Technology Overview – Year 7

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic(s)	Maritime History Desk Tidy	Maritime History Desk Tidy	PIXAR Tie Pin	PIXAR Tie Pin	Pewter Casting	Microbit
Topic Objectives	Explore Timbers and Timber based composites.  Investigate design skills.  Identify workshop health and safety.	Apply safe operation of wood tools and equipment.	Introduction to polymers.  Investigation and basic design.	Compare and contrast CAD and CAM.  Evaluate stages.	Explore metals.  Create investigation and design techniques: - Forming and shaping metals - Finishing metals	Investigate integrated circuits.  Explore programmable components.
Acquired Knowledge/Skills	Investigation and research skills.  Design communication styles.	Cutting, wasting, shaping and finishing techniques.  Evaluating a product.	Investigate polymers, their formation, impact and manufacture considerations.	Apply CAD to design.  Apply CAD to prepare for CAM.  Apply CAM.	Designing for metal casting: - Creating a casting mould - Considerations when creating a gravity casting mould - Tooling for cutting, shaping and finishing metals	Programming.  Component recognition.
Assessments	Formative assessment of: - Investigating - Designing - Making - Evaluating	Summative assessment: Maritime history desk tidy outcome	Formative assessment of: - Investigating - Designing - Making - Evaluating	Summative assessment: PIXAR Tie Pin outcome	Formative assessment of: - Investigating - Designing - Making - Evaluating  Summative assessment: Pewter cast outcome	Formative assessment of: - Investigating - Designing - Making - Evaluating  Summative assessment: Microbit outcome