



YSGOL GYMUNEDOL

PORTH

COMMUNITY SCHOOL

STEM FACULTY



ENGINEERING

(LEVEL 1-2)

YEAR 11 CURRICULUM MAP



OVERVIEW

[Last updated: OJ – September 2019]

WJEC Level 1/2 Vocational Award in Engineering enables learners to gain knowledge, understanding and skills relating to the field of Engineering. The qualification is made up of three mandatory units:

Unit1: Engineering Design (internally assessed/externally moderated)

Unit 2: Producing Engineering Products (internally assessed/externally moderated)

Unit 3: Exam – Solving Engineering Problems

GCSE 2-YEAR PLAN:

YEAR 10: - Skills building and NEA preparation

YEAR 11: Unit preparation and completion. Theory work and revision for exam.

STRUCTURE

LESSONS	5 lessons a fortnight [60 minutes each].
CLASS WORK	Work will be completed in exercise books and work booklets kept in folders. (<i>Gwaith Dosbarth</i> ; the date in Welsh and the LO should be written in all lessons if possible).
DELIVERY	Each topic will be taught through a range of tasks and build towards an assessment / DIRT activity.
ASSESSMENT & FEEDBACK	Assessments are GCSE-style questions and tasks relating to each unit. Each assessment requires a cover sheet, feedback sheet and DIRT.
SKILLS	Students will build on the National Curriculum skills gained during Years 7 and 8 and begin to learn new subject-specific skills required for GCSE.
HOMEWORK	Homework will centre around extension tasks, revision and exam practise.
RESOURCES	
RESULTS	Results and data will be discussed / moderated at department meetings and logged on SIMS spreadsheets.
SPECIALISTS	Mr O Jones



YEAR 11 PLAN

TOPIC	TIME (approx.)	LESSON CONTENT	SUMMATIVE ASSESSMENT
UNIT 2 (NEA preparation and introduction) Theory content	6 WEEKS	<ul style="list-style-type: none"> Introduce unit Plan and create job sheets and time management document. Mock tasks/ drawings provided for pupils to practice planning. Paperwork completed for unit 2. Theory – AC 2.1, 2.2 & 2.3 - Material Properties, testing Materials & Selecting materials (exam questions) 	<ul style="list-style-type: none"> AC 1.1,1.2, 2.1, 2.2 Class test based on theory. Job sheets Gantt Chart/flowcharts Risk Assessments
UNIT 2 Practical Task Theory content	6 WEEKS	<ul style="list-style-type: none"> Practical work –carousel of activities to manage high numbers. Theory - AC 3.1 – Describing processes 	<ul style="list-style-type: none"> Practical outcomes Class test based on theory.
UNIT 2 Evaluation	3 WEEKS	<ul style="list-style-type: none"> Written evaluation and testing carried out. 	<ul style="list-style-type: none"> Written evaluation
UNIT 1 (NEA preparation)	6 WEEKS	<ul style="list-style-type: none"> Research into engineered products and their primary function, parts, components assembly) Development of a design specification and requirements Sketch work and engineering drawing recap. Use of 2D Design to create drawings to BS 8888. Theory – AC 1.1- Describe the effects of engineering developments. 	Class tests.
UNIT 1	6 WEEKS	<ul style="list-style-type: none"> Pupils given assignment Investigation into engineered products. Develop criteria for product and produce a specification. Develop 3 solutions to the brief/specification. Communicate ideas and present. Use of 2D Design to present solution to BS 8888. Final solution Theory - AC 4.2 – converting between isometric and orthographic. Theory AC4.4 – Propose solutions to engineering problems 	Class tests. Research task Design specification Design Ideas Development work. CAD drawings -3 rd Angle projection & isometric. Final rendered image.
UNIT 3 Preparation	REMAINDER OF YEAR	<ul style="list-style-type: none"> Final theory topics: AC 1.2 – Explain achievements of engineering achievements. AC 1.3 – Explain how environmental issues affect engineering AC 3.2 – Describe application for processes. AC 4.3 – Analysing situations 	Class tests and mock exam sat.