



COURSE OVERVIEW

Pupils are studying WJEC Engineering Level 1/2.

WJEC Level 1/2 Vocational Award in Engineering offers a learning experience that focuses on applied learning, i.e. acquiring and applying knowledge, skills and understanding through purposeful tasks set in sector or subject contexts that have many of the characteristics of real work.

There are 3 assessment points.

Unit Title	Assessment	Weighting
1 Engineering Design	6-7 page portfolio task	25%
2 Producing engineering products	Workshop making task	50%
3 Solving engineering problems	90 minute exam in May, year 10	25%

If they pass all units, they will receive an overall grade.

This is what the grades on reports home translate as:

Grade	Written as	GCSE equivalent
Distinction star (level 2)	D*	A* (8/9)
Distinction (Level 2)	D	A (7)
Merit (Level 2)	M	B (6)
Pass (Level 2)	L2P	C (4/5)
Pass (Level 1)	L1P	D (3)

UNIT 1

The purpose of this unit is for learners to analyse engineered products in order to propose design solutions to meet requirements of a set Brief.

UNIT 2

The purpose of this unit is for learners to use skills developed to produce an engineered product.

Through this unit, students will learn to interpret different types of engineering information in order to plan how to make engineered products. They will develop the skills needed to work safely with a range of engineering processes, equipment and tools. With these skills, students will learn to make a range of engineered processes that are fit for purpose.

UNIT 3

Written examination, 90 minutes, 60 marks

General content: Describe engineering developments, explain effects of engineering achievements, explain how environmental issues affect engineering applications, describe properties required of materials for engineering products, explain how materials are tested for properties, select materials for a purpose, describe engineering processes, describe applications of engineering processes, use mathematical techniques for solving engineering problems, convert between isometric sketches and 3rd angle orthographic projections, analyse situations for engineering problems, propose solutions in response to engineering problems



Below is a brief overview of the two-year course. Please refer to the 'Year 9 Choices: Dreams and Aspirations' booklet for a full course outline. This can be found on the School Website.

Year 10- Pupils undertake a number of skill-building activities and prepare for their Unit 3 exam

Year 11- Pupils carry out the design portfolio for Unit 1 and the undertake the practical tasks involved in Unit 2.

SUCCESS CRITERIA

All pupils are aware of their target grades for Engineering
Students need to pass all 3 units to be awarded a grade.

Revision

Pupils will receive a detailed revision list prior to all exams taken; PPE and the final exam. There will also be sessions to support exam preparation leading up to the final exam in the summer term.

Other Curriculum Activities

In normal circumstances we offer an after-school club for all Design Technology pupils every week, where pupils can catch up with work, or continue to progress their NEA within the workshop or ICT room. Pupils can also revise and gain support from staff regarding exam preparations.

How to Help Your Child in Engineering

- Ask him/her to explain what new terminology and theory-based items they have explored to enhance more in depth understanding.
- Inspire him/her to research Engineering projects and follow engineering projects online
- Encourage them to use OnShape, a web based CAD program, to develop their skills for Unit 1

USEFUL RESOURCES

We use a range of text books during the Units; however, the following has been specifically designed for this course:



JACK HUNT SCHOOL

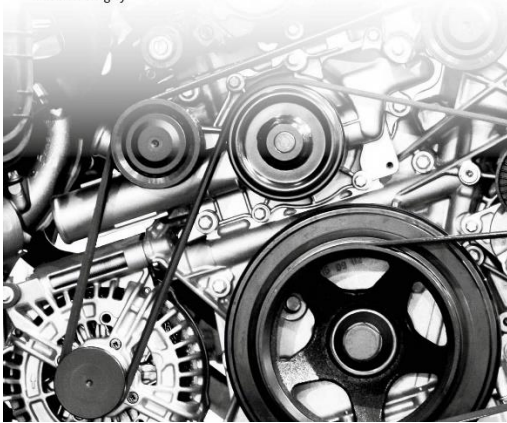
ENGINEERING LEVEL 1/2

Miss Loveridge
Curriculum Area Leader, D&T



WJEC Vocational Award **ENGINEERING** LEVEL 1/2

Matthew Wrigley



WJEC Vocational Award Engineering
Level 1/2 Paperback
ISBN: 1912820153

Other useful texts:

Pugh S (1991) **Total Design** Addison Wesley Publishers ISBN 9780201416398

Neil Phelps and Colin Simmons (2007) **Revised Drawing Practice BS 8888:2006** 3rd Edition ISBN 978-0-580-50868-4

Godfrey N and Wallis S (2004) **GCSE Engineering** Nelson Thornes ISBN 0748785515

Websites which can help are:

www.technologystudent.com/ student friendly explanations for all areas of DT, including engineering

www.howstuffworks.com encourages students to find how a range of products works.

www.cat.org.uk international company with large base in Peterborough.

***Please do not hesitate to contact the Curriculum Area Leader of this subject
should you wish to discuss the course.***