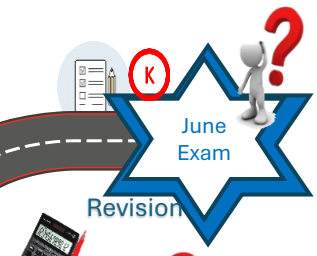
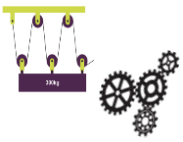
KS4 Engineering Design subject learning journey

ERDINGTON ACADEMY
ENRICHING LIVES; TRANSFORMING FUTURES





TA1:
Know designing strategies and processes
TA2:
Know how to develop a design brief and specification, and the manufacturing and other considerations that can influence a design.
TA3:
Know how to develop different types of drawing and modelling used in engineering to communicate designs ideas.
TA4:
Know how to evaluate design ideas & outcome.

Unit R038: Principles of engineering design. Exam 1hr 15 mins.

EXAM DATE 13TH May 2025 am

EXAM PREP SPRING TERM

Revision

Yr. 11 March mock exam based on Unit R038 & R040

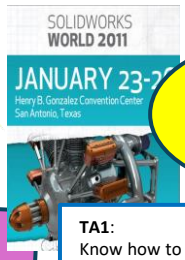
TA3-TA4 deadline SPR February 2025

TA2- deadline AUT 8th Oct 2024

TA1- deadline AUT 8TH Oct 2024

A is for Aesthetics
C is for Cost
C is for Customer
E is for Environment
S is for Size
S is for Safety
F is for Function
M is for Material

NEA



Yr. 11 L2 Engineering Design (OCR)

Yr. 11 November mock exam based on Unit R038 & R040

Unit R039: Communicating designs. NEA

Students prepare for the exam using revision and exam practice.

TA1:
Know how to develop their techniques in sketching, and gain industrial skills in engineering drawing
TA2:
Know how to draw & use(CAD), 2D and 3D software, to produce engineering drawings.
TA3:
Know how to produce a 3D CAD model of a design proposal to include compound 3D shapes that visually communicate their designs.

SPECIFICATION CODE:

Level 1/Level 2 Cambridge National Certificate in Engineering Design (120 GLH) – J822

SOLIDWORKS

TA3 deadline SUM 2025

TA1 deadline SPR 2025

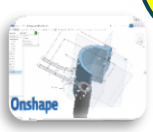
TA2 deadline SPR 2025

Yr.10 mmer 1/2 ock exam based on Unit R038 & R040

TA1:
Know how to develop their techniques in sketching, and gain industrial skills in engineering drawing
TA2:
Know how to draw & use(CAD), 2D and 3D software, to produce engineering drawings.
TA3:
Know how to produce a 3D CAD model of a design proposal to include compound 3D shapes that visually communicate their designs.

Unit R039: Communicating designs. NEA

TA3 deadline SPR 2025



TA2 deadline AUT2 2024

TA1 deadline AUT1 2024

Unit R040: Design, Evaluation & Modelling NEA

TA1:
Know how carry out product analysis & product disassembly.
TA2:
Know how to develop their virtual modelling skills using (CAD) 3D software.
TA3:
Know how to also develop their physical modelling skills using modelling materials or rapid-prototyping processes then evaluate their prototype.

Yr. 10 L2 Engineering Design (OCR)

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PROGRESS TO:

- A Levels
- Apprenticeships
- Further advanced vocational qualifications at Level 3
- Cambridge Technical

FURTHER EDUCATION AT UNIVERSITY:

- Product Designer
- Engineering - (structural, civil, mechanical)
- Three-Dimensional Design
- Education

Scan me OCR