



THE COLESHILL SCHOOL

CURRICULUM OVERVIEW

DESIGN TECHNOLOGY

CURRICULUM

Our provision is a coherent and carefully sequenced “knowledge-engaged” curriculum based on the principles of cognitive science. There is a focus on development of literacy and the application of acquired knowledge to ensure children access the curriculum at a depth to ensure a deep and enduring understanding in discrete subject areas. The curriculum framework of cognitive education is planned to enable children to think independently and contribute positively to society and the wider world.

CURRICULUM HOURS

Key Stage	Hours per fortnight
3	2
4	5
5	

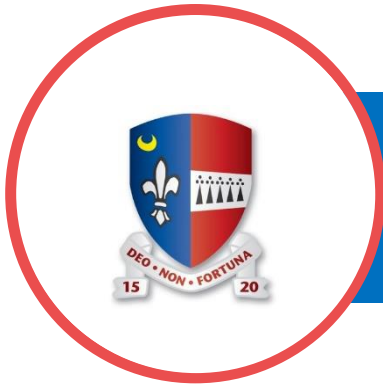
HOW DO WE ASSESS?

At TCS, all subjects follow the ‘Assessment Cycle’ when completing key significant marked pieces. Each assessment cycle has a block of initial teaching, a revision lesson, an assessment lesson and a review lesson (Nb. Dept. are free to flex when assessments take place around the term to fit best with curriculum schemes of work and subject demands).

These serve several purposes:

- To highlight the importance of all formal assessments.
- To ensure all assessments are preceded by thorough revision.
- To ensure all assessments are followed-up with detailed feedback and subsequent intervention or support
- To ensure parents are kept informed of their child’s progress to Age Related Criteria

ALL students will complete a minimum of 3 Key Assessments during the Academic Year, one per Term. It is expected that subjects follow the TCS Assessment Cycle when designing and implementing their assessments:



THE COLESHILL SCHOOL

KS3 CURRICULUM PLAN

DESIGN TECHNOLOGY

CURRICULUM INTENT

We aim to ensure that learners develop technical and practical competencies as well as the wider skills valued by employers. Logical, creative and practical, it's the main opportunity that students have to apply what they learn in maths and science – to effectively problem solve. We aim to develop students to become creative, independent and innovative learners allowing them to become self-motivated and confident. We encourage students to work independently and as part of a team, developing resilience, embracing learning found from mistakes and a readiness to take on criticism and extend communicable and applied skills that will be needed when employed.

We encourage student to contribute to the creativity, culture, wealth and well-being of themselves and their community, embedding citizenship in a modern technological world. To intervene creatively in their made world and to be actively involved in shaping it building economic productivity. To align DT with the need to respond to the ecological problems caused by modern mass production and consumption, a rising global population and growing energy demands.

TERM 1 YEAR 7 AND 8 WILL ROTATE BETWEEN DISCIPLINES THROUGHOUT THE YEAR .

YEAR 7:

VISUAL COMMUNICATION, CAD CAM MYTHICAL CREATURE TORCH

YEAR 8:

FERROUS AND NON-FERROUS METALS EGG CUP HOLDER

YEAR 9:

INTRODUCTION TO DESIGN TECHNOLOGY AND ENGINEERING.

TERM 2 YEAR 9 WILL ROTATE BETWEEN HALF A TERM OF DESIGN TECHNOLOGY AND ENGINEERING IN READINESS FOR THEIR GCSE OPTIONS CHOICES AT THE END OF THE YEAR .

YEAR 7:

MOBILE PHONE HOLDER

YEAR 8:

CHEF SCHOOL

YEAR 9:

INTRODUCTION TO DESIGN TECHNOLOGY AND ENGINEERING.

TERM 3

YEAR 7:

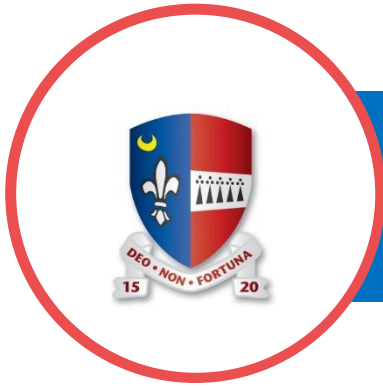
CHEF SCHOOL

YEAR 8:

PLASTICS IN PRODUCTION AND 3D PRINTING

YEAR 9:

INTRODUCTION TO DESIGN TECHNOLOGY AND ENGINEERING.



THE COLESHILL SCHOOL

KS4 CURRICULUM PLAN

DESIGN TECHNOLOGY

EXAMINATION BOARD

GCSE: AQA
CODE: 8552

ASSESSMENTS

PAPER 1:

Written exam: 2 hours
100 marks
50% of GCSE

NEA:

Non-exam assessment (NEA):
30–35 hours
100 marks
50% of GCSE

PAPER 1

- **SECTION A – CORE TECHNICAL PRINCIPLES (20 MARKS)**

A MIXTURE OF MULTIPLE CHOICE AND SHORT ANSWER QUESTIONS ASSESSING A BREADTH OF TECHNICAL KNOWLEDGE AND UNDERSTANDING.

- **SECTION B – SPECIALIST TECHNICAL PRINCIPLES (30 MARKS)**

SEVERAL SHORT ANSWER QUESTIONS (2–5 MARKS) AND ONE EXTENDED RESPONSE TO ASSESS A MORE IN DEPTH KNOWLEDGE OF TECHNICAL PRINCIPLES.

- **SECTION C – DESIGNING AND MAKING PRINCIPLES (50 MARKS)**
A MIXTURE OF SHORT ANSWER AND EXTENDED RESPONSE QUESTIONS.

NEA

PRACTICAL APPLICATION OF:

- CORE TECHNICAL PRINCIPLES
- SPECIALIST TECHNICAL PRINCIPLES
- DESIGNING AND MAKING PRINCIPLES

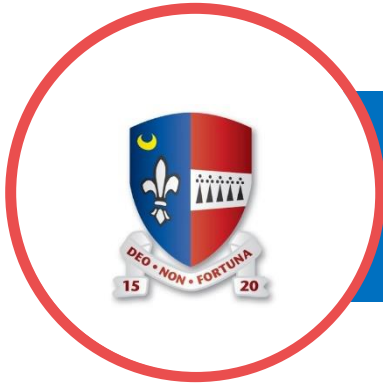
SUBSTANTIAL DESIGN AND MAKE TASK

ASSESSMENT CRITERIA:

- IDENTIFYING AND INVESTIGATING DESIGN POSSIBILITIES
- PRODUCING A DESIGN BRIEF AND SPECIFICATION
- GENERATING DESIGN IDEAS
- DEVELOPING DESIGN IDEAS
- REALISING DESIGN IDEAS
- ANALYSING & EVALUATING

CONTEXTUAL CHALLENGES TO BE RELEASED ANNUALLY BY AQA ON 1 JUNE IN THE YEAR PRIOR TO THE SUBMISSION OF THE NEA.

STUDENTS WILL PRODUCE A PROTOTYPE AND A PORTFOLIO OF EVIDENCE WORK WILL BE MARKED BY TEACHERS AND MODERATED BY AQA.



THE COLESHILL SCHOOL

KS4 CURRICULUM PLAN

ENGINEERING

EXAMINATION BOARD

GCSE: WJEC
CODE: 5799QA

UNITS

UNIT 1: MANUFACTURING ENGINEERING PRODUCTS

INTERNAL ASSESSMENT 48
GLH
[80] marks
[40%] of GCSE

UNIT 2: DESIGNING ENGINEERING PRODUCTS

INTERNAL ASSESSMENT 24
GLH
[40] marks
[20%] of GCSE

UNIT 3: SOLVING ENGINEERING PROBLEMS

Written exam: [1 HOUR 30 MINS]
[80] marks
[40%] of GCSE

UNIT 1: MANUFACTURING ENGINEERING PRODUCTS

UNIT 1 WILL INVOLVE PRODUCING A MANUFACTURING PRODUCT, WHICH CAN RANGE FROM A BASIC HAND TOOL TO COMPLEX MACHINERY. THE PRODUCT WILL NEED TO BE DEVELOPED OVER 20 HOURS.

HAVE THE OPPORTUNITY TO INTERPRET DIFFERENT TYPES OF ENGINEERING INFORMATION IN ORDER TO PLAN HOW TO MANUFACTURE ENGINEERING PRODUCTS.

DEVELOP KNOWLEDGE, UNDERSTANDING AND SKILLS IN USING A RANGE OF ENGINEERING TOOLS AND EQUIPMENT IN ORDER TO MANUFACTURE AND TEST A FINAL PRODUCT.

UNIT 2: DESIGNING ENGINEERING PRODUCTS

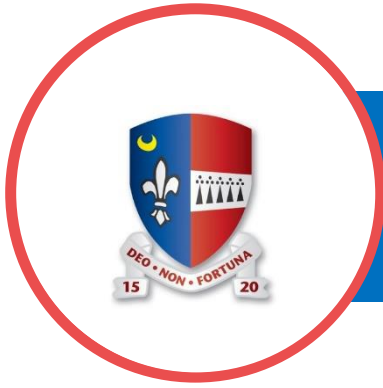
UNIT 2 WILL ALSO BE ASSESSED THROUGH PROJECT WORK YOU WILL APPLY YOUR PROBLEM-SOLVING SKILLS TO ANSWER A BRIEF AND PRODUCE A SOLUTION.

EXPLORE HOW AN ENGINEERED PRODUCT IS ADAPTED AND IMPROVED OVER TIME. IT OFFERS THE OPPORTUNITY TO APPLY YOUR KNOWLEDGE AND UNDERSTANDING TO ADAPT AN EXISTING COMPONENT, ELEMENT OR PART OF THE PRODUCT THAT YOU WILL HAVE MANUFACTURED FOR UNIT 1.

UNIT 3: SOLVING ENGINEERING PROBLEMS

UNIT 3 WILL INVOLVE A SINGLE EXAM, WHICH WILL BE MADE UP OF MULTIPLE-CHOICE QUESTIONS, AND SHORT AND EXTENDED ANSWERS.

INTRODUCED TO A RANGE OF CONSIDERATIONS THAT IMPACT ON ENGINEERING DESIGN AND HOW MODERN ENGINEERING HAS HAD AN IMPACT ON MODERN DAY LIFE AT HOME, WORK AND IN SOCIETY IN GENERAL.



THE COLESHILL SCHOOL

KS5 CURRICULUM PLAN

YOUR SUBJECT

EXAMINATION BOARD

A LEVEL: [insert exam board]
CODE:

PAPER

PAPER 1:

Written exam: [insert time]
[x] marks
[%] of A LEVEL

PAPER 1

WHAT'S ASSESSED

[INSERT UNITS]

PAPER 2

WHAT'S ASSESSED

[INSERT UNITS]

PAPER 3 IF REQ.

WHAT'S ASSESSED