Longfield Design, Technology & Engineering Department

Longfield DT AND ENGINEERING

Technical Collage

A levels

Continue your lifelong love of learning and personal development

Job/apprenticeship

NCFE Synoptic project 2nd Entry End May

NCFE Exam second entry March

NCFE Synoptic project 1st Entry End March

YEAR 11 Term 2.2

Practice Synoptic project – A03 Analyse and evaluate knowledge and understanding

Synoptic project – A05 Plan, deliver and evaluate the project

Synoptic project – A02 Apply knowledge and understanding

Synoptic project – A04 Demonstrate and apply technical skills and processes

YEAR 11 Term 2.1

Retrieval strategies – Exam questions

NCFE release synoptic project brief December

NCFE External Exam End of November

Synoptic project – A01 Recall Knowledge and show understanding

YEAR 11 Term 1.2

Retrieval of knowledge – Tools

Retrieval of knowledge – Materials and their properties

Retrieval of knowledge – Math's

Retrieval of knowledge – Engineering drawings

Retrieval of knowledge – Engineering disciplines

Retrieval of knowledge – Health and Safety

YEAR 11 Term 1.1

Practice Synoptic project – A05 Plan, deliver and evaluate the project

Practice Synoptic project – A04 Demonstrate and apply technical skills and processes

YEAR 10 Term 3.2

Practice Synoptic project – A01 Recall Knowledge and show understanding

Practice Synoptic project – A03 Analyse and evaluate knowledge and understanding

Practice Synoptic project – A02 Apply knowledge and understanding

YEAR 10 Term 3.1

Retrieval strategy - Correct use of Math's when marking out product

Retrieval strategy - Marking out of product

Retrieval strategy - Isometric drawing of product

Retrieval strategy - 3rd angle projection drawing of product

Retrieval strategy - Correct use of Health and Safety

Retrieval strategy - Modify materials to make product

Retrieval strategy - Finishing product

YEAR 10 Term 2.2

Retrieval strategy – Exam style questions

Tools
- Marking out
- Modifying
- Joining
- Finishing

Retrieval strategy – Exam style questions

Materials and Properties
- Characteristics – Woods
- Characteristics –Metals
- Characteristics – Polymers
- Characteristics – Ceramics
- Characteristics - Composites

YEAR 10 Term 2.1

Engineer Drawing
- Title block
- Systems of measurement's
- Identify the different types of lines.
- Tolerance
- 2D and 3D projection
- 1st and 3rd angle
- British standards
- ISO

Retrieval strategy – Exam style questions

3rd Angle projection drawings

Retrieval strategy – Technical drawings

3rd Angle projection drawings CAD

Retrieval strategy – Technical drawings

Isometric Drawings

Isometric Drawings CAD

Retrieval strategy – Technical drawings

YEAR 10 Term 1.2

Retrieval strategy – Exam style questions

Math's
- Basic SI units of measurement
- Application of SI units
- Application of basic SI units in projects and products understand how science and mathematics is applied in Engineering

Retrieval strategy – Exam style questions

Health and Safety.
- HASAWA
- PPE
- MHOR
- COSSH
- RIDDOR

Retrieval strategy – Exam style questions

Engineering Disciplines
- Mechanical
- Electrical and Electronic
- Aerospace
- Communication
- Chemical
- Cival
- Automotive
- Biomedical
- Software

Introduction to course and Engineering

YEAR 10 Term 1.1

KS3 Knowledge You will be building on the knowledge you have gained in KS3 DT. You gained knowledge of Technical Drawing, Health and Safety, using tools, materials and their properties, the design process, mechanism's, electronics, cultures, users.