



Engineering



Archdiocese of Liverpool

Curriculum intent:

The purpose of the year 10 curriculum is to enable learners to learn in such a way that they develop:

- skills required for independent learning and development;
- a range of generic and transferable skills;
- the ability to solve problems;
- the skills of project based research, development and presentation;
- the ability to apply learning in vocational contexts.

A Pupils will undertake a range of tasks to develop core skills needed to access the coursework NEA. With this, learners are introduced to a context for learning, review previous learning to plan activities, carry out activities and review outcomes and learning. This approach mirrors engineering production and design processes and also provides for learning in a range of contexts thus enabling learners to apply and extend their learning.

The curriculum has been designed to build on the skills, knowledge and understanding acquired at Key Stage 3.

Year 10

	Content	Concepts and Skills
TERM 1	Health and Safety Quality Control Risk Assessment Production Plans Orthographic Drawing Tool and Machining Skills Engineering Materials	• Planning and production, • Materials, Sources and Properties • Workshop independence • Making Techniques
TERM 2	NEA Unit R015 EXAM Preparation Unit R014	Task 1: Production Plan Task 2: Risk Assessment Task 3: Marking Out Task 4: Machining Task 5: Tool Skills Topic Area 1: Manufacturing processes Topic Area 2: Engineering materials Topic Area 3: Manufacturing requirements Topic Area 4: Developments in engineering manufacture
TERM 3	CAD/CAM NEA Unit R016	Topic Area 1: Preparing for manufacture Topic Area 2: Develop programmes to operate CNC equipment Topic Area 3: Safely use processes and equipment to make products in quantity NEA Task 1 • Students are expected to manufacture at least one basic production aid.

