

Year 10 Design and Technology

Year 10 students will be exploring a wide range of materials and processes throughout their first year of the GCSE Design Technology. Students will develop their investigative and problem-solving skills in order to prepare them for their non-examined assessment (NEA) at the start of June. Year 11 students will continue working on their non-examined assessment (NEA) before revisiting their theory in preparation for the summer exams.

The Key Stage 4 Design Technology GCSE at Northallerton School & Sixth Form College has been carefully selected from a range of examining bodies to provide flexibility, enjoyment and the right level of challenge to match the needs of the individual.

Methods of deepening and securing knowledge:

Revisiting prior learning	Practical sessions are used as opportunities to revisit prior learning. Before students embark on a piece of practical session, they are reminded of the links to the key theory covered in the course. The practical work itself allows students to apply their prior learning in real-life contexts, which helps to secure students' understanding.
Spaced-practice	Spaced-practice in design technology/engineering involves students reviewing material over a long period of time. This gives their minds time to form connections between the ideas and concepts so knowledge can be built upon and easily recalled later. Independent study is used to encourage students to revise learning that has been covered so far in the course. Regular revision activities, such as low-stakes tests, are also used as spaced-practice strategies.

	Autumn term 1	Autumn term 2	Spring term 1
Topic(s)	CAD/CAM theory and practice.	Pull along toy theory and practice.	Bottle opener metals and processes.
Assessment	Assessment by end of unit test and ongoing assessment.	Assessment by end of unit test and ongoing assessment.	Assessment by end of unit test and ongoing assessment.
CEIAG <i>(Careers that are linked to that topic)</i>	Looking at the effects of CAD/CAM on industry and jobs.	Job opportunities in the wood working industries.	Job opportunities in the metalworking industries.

	Spring term 2	Summer term 1	Summer term 2
Topic(s)	Design and making principles.	Plastics theory and processes.	Product analysis.
Assessment	Assessment by end of unit test and ongoing assessment.	Assessment by end of unit test and ongoing assessment.	Assessment by end of unit test and ongoing assessment.
CEIAG <i>(Careers that are linked to that topic)</i>	Understand that SMSC have to be applied with real designers in industrial situations.	Job opportunities in the plastics working industries.	Recognise the place of analysts in industry.

Independent Study

Students in Year 10 have access to the course materials through Google Classroom. Independent study is accessible through this platform and is given either each week or once a fortnight. Independent study is generally used to secure prior learning through practice to develop confidence and memory.