

National 3 Design and Technology (Course Code: C720 73)

SCQF Level 3 (18 Credit Points)

Why study Design and Technology?

This course gives you a practical introduction to design and to technology. You will learn basic skills in designing and in getting across ideas. And, you will explore and amend design ideas through model making and testing in product design and engineering contexts.

Studying Design and Technology will give you the chance to improve your practical creative and problem solving skills. You will learn how to work safely in a workshop environment.

The skills you learn in this course will help you move into career areas such as craft, design, engineering and graphics.

What do I need to get in?

The school or college will decide on the entry requirements for the course.

What will I study?

In this course you will learn basic design and communication skills within the design process. And, you will get to learn practical skills in making, constructing and testing models. You will also gain some knowledge of basic engineering ideas. You will apply this knowledge and skills to solve simple problems.

The course has **three** compulsory units.

Graphics for Design (6 SCQF credit points)

In this unit you will:

- learn how to produce drawings, sketches and diagrams to support the design process
- use computer-aided design or manual graphic communication tools and techniques.

Designing and Modelling (6 SCQF credit points)

In this unit you will:

- learn how to follow a simple design process
- make a simple physical model from design drawings
- amend the design based on simple assessment of the model
- learn about protecting the environment and recycling.

Constructing and Testing (6 SCQF credit points)

In this unit you will:

- learn about structures and mechanisms by solving simple engineering problems
- construct (or simulate) and test simple models to demonstrate one or more of strengthening, energy transfer or movement
- draw conclusions on the test results.

In all of the above units you will develop and apply safe working practices in a workshop or similar environment.

How will I be assessed?

Your work will be assessed by your teacher or tutor on an ongoing basis throughout the course. Items of work might include:

- practical work – using software to render a 3D model of a design idea
- project work – design a product in answer to a brief, or taking part in a team working project.

You must pass all three units to gain the course qualification.

Study Materials

What can I go on to next?

If you complete the course successfully, it may lead to:

- **National 4 Design and Manufacture**
- **National 4 Engineering Science**

Further study, training or employment in:

- Art and Design
- Construction
- Engineering
- Manufacturing Industries
- Science and Mathematics