

# D & T Learning Journey



## Cycle 2

- Plan of making
- Cutting list
- Review of core practical
- Retrieval and revision of all content
- Exam preparation

## Revision and GCSE Exams

### Courses

Design and Technology can lead to Product design at A level, engineering courses.

### Careers

Architect, product designer, civil/mechanical engineer, theatre/film set designer, carpenter,

### Skills

Problem solving, evaluation and reflection skills  
ICT literacy, collaboration, adaptability, self-management

### Real World

Creating solutions for everyday practical problems

## Cycle 1

- NEA Continue
- CAD / communicate design ideas sketching and Computer aided
- Modelling
- Making

Year  
**11**

## Cycle 3

- Introduction of NEA contexts
  - Identify problem
- Find client and complete profile
- Generate design ideas

## Cycle 2

- Specialist techniques and processes
- Commercial processes
- Surface treatments and finishes.
- Material management

## Cycle 2

- Specialist techniques and processes.
- mechanical devices, forces and stresses,
- communication of design ideas
- CAD/CAM
- The work of others

## Cycle 3

- Modern Materials
- Smart materials
- Composite Materials
- Systems approach to designing
- Forces and momentum

Year  
**10**

## Cycle 1

- New and emerging technologies
- Scales of production
- Environmental social and economic challenge
- Energy –Types, generation and storage.

## Cycle 1

- Materials and their working properties.
- The work of others (Core)
- **Specialist:** tools and equipment, sources and origins, stock forms, equipment and processes

Year  
**9**

## Cycle 3

- Designing, measuring, modelling,, testing and marking out
- Modelling techniques using paper card
- Health and safety, use of research, product analysis, consumer needs, sketching ideas, sequencing of a process

## Cycle 2

- Surface decoration techniques
- Use of tools and equipment to design products
- Health & safety
- ergonomics in design and data analysis
- Use of a template
- Sustainability
- Use of CAD/CAM

## Cycle 2

- Reading and following instructions, scoring folding, use of tools.
- Health & safety
- How paper is made, sources of paper, stock forms, paper sizes

## Cycle 3

- Designing to a brief
- Use of hand and machine tools; work with wood

Year  
**8**

## Cycle 1

- Making basic sauces, function of ingredients,
- Preparation and cooking techniques; Eatwell guide principles, Functions of fat in the diet, energy balance
- Sources of food
- food science

## Cycle 1

- Knife skills, baking, rubbing in, shaping, reading and following a recipe
- Food safety and H & S, Eatwell guide, 4Cs nutrient functions, healthy choices

Year  
**7**

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Year  
**6**

**A01**

Identify, investigate and outline design possibilities to address needs and wants.

**A02**

Design and make prototypes that are fit for purpose.

**A03**

Analyse and evaluate: design decisions and outcomes, including for prototypes made by themselves and others wider issues in design and technology.

**A04**

Demonstrate and apply knowledge and understanding of:

- technical principles
- designing and making principles.

