

Design & Technology
KS3 & KS4
Curriculum Mapping
Summary Tables

*Please refer to
'Design & Technology Curriculum by Term'
document for greater detail*

Design & Technology KS3

Design - Make - Evaluate

Year 7

Graphic Design & Packaging Design

Isometric drawing
Nets & net design

3d modelling – by hand
and using Tinkercad

CAD – 2d DesignTools

Collectible Toy Design

Pocket Torch (extension task)

Tangram, puzzle & box

CAM – 3dPrinting

Technical drawing

CAM – Laser Cutter

Safety & Quality

Standards

Health & Safety

Practical skills in Wood

CAD – 2d Design Tools

Year 8

Inclusive Design Challenges

User-Centred design

Tinkercad

Modelling & Prototyping

Designing Our Tomorrow

Iterative design

Modelling & Prototyping

Moodlight project

Electronics/soldering skills

Sensors & components

Design Movements

Vacuum forming

Polymers - thermoplastics

Laser cutting

Orthographic drawing

Cross-sectional view

Tools & machinery

CAD – 2d Design Tools

Year 9

Option Choices Taster Mini projects (Coffee Shop theme):

- Graphic Communication
- Constructing the Built Environment
- Engineering Products / Design & Technology
- Hospitality & Catering / Food & Nutrition

See Curriculum by Term

'Mini NEA' project on Sustainable Living

Designing for a client / stakeholders

CAD modelling – SketchUp

Orthographic scale drawings and plans

2-point Perspective drawing

Scale architectural planning & modelling

Year 10

KS4 Design & Technology
Option subjects

Year 11

KS4 Design & Technology
Option subjects

Design & Technology KS3

Food & Nutrition

Year 7

Brilliant Breakfasts

- * Preparing to cook
- Eatwell Guide and balancing meals
- * Nutrients and their functions
- * Product disassembly
- * The importance of breakfast
- * Fruit and vegetable classification
- * Understanding recipes
- * the rules of soup making
- * Practical tasks may include croque monsieur, scones, soup, pizza, crudites, fruit salad, smoothies, cereal bars, pastry pockets, bread rolls, savoury scones

Year 8

- Food safety and hygiene/ key temperatures
- * Food poisoning
- * The function of ingredients
- * The effects of heat on food
- * Gelatinisation
- * Dextrinisation
- * Coagulation
- * The body of nutrition-excess and deficiency
- * Raising agents: fruit muffins
- * Factors affecting food choice
- * Practical tasks may include focaccia, frittata, mac and cheese, sweet and sour chicken, chow mein, chilli con/ sin carne, muffins,

Year 9

Option Choices Taster project (Coffee Shop theme):Hospitality & Catering

- * Types of service
 - * Planning a hospitality outlet layout
 - * Job roles
 - * Planning a menu
 - * Traybakes
- ### **Food and Nutrition-Eating sustainability**
- * Food miles, natural resources, palm oil, Fairtrade
 - * Fish: cooking with/ sustainability
 - * Ultra-processed food and health
 - * The truth about your sandwich (hygiene/ processing etc)
 - * Practical tasks may include Thai fishcakes, gnocchi and ragu, cinnamon buns, Swiss roll, pot noodle, layered shortbread traybake, loaded potato skins, lentil moussaka

Year 10

Level 1/ 2 Hospitality and Catering Award
Food Preparation and Nutrition

Year 11

Level 1/ 2 Hospitality and Catering Award
Food Preparation and Nutrition

Hospitality & Catering KS4

Year 7

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Year 8

*Design & Technology
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Year 9

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Year 10

LO1: The structure of the industry, job requirements and working conditions

LO2: Operations and customer requirements

LO3: Health and safety requirements

LO4: How food causes ill health

LO5: Review and recommend options for hospitality provision

Unit 1: On-Screen Exam

Year 11

LO1: Understand the importance of nutrition when planning menus

LO2: Understand menu planning

- Factors to consider
- Environmental considerations
- Customer needs
- Plan for production

LO3: Be able to cook dishes

- Techniques in preparation, cooking and presentation
- Quality assurance
- Food safety practices

Unit 2: Controlled Assessment

Graphic Communication KS4

Year 7

Design & Technology
KS3 Curriculum

Year 8

Design & Technology
KS3 Curriculum

Year 9

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Year 10

Elements of
Graphic Design

Illustrator and
Photoshop
Workshops

Introduction to
Graphic
Designers

Sustained
Graphics Project

Year 11

Mock Exam
Preparation

Mock Exam
Final Piece

Real Exam
Preparation

Real Exam
Final Piece

Portfolio/Boards
presentation

Engineering Design KS4

Year 7

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Year 8

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Year 9

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Year 10

Design Briefs
& Specifications

User
Requirements

Dyson
Engineering Box

Product Analysis
& Research
Project

Coursework
Submission
& Exam

Year 11

Developing &
Presenting
Engineering Designs

Generate Design
Proposals

Engineering Drawing
Techniques

Computer Aided
Design (CAD)

3D Design
Realisation

Coursework
Submission

Constructing the Built Environment KS4

(Until June 23)

Year 7

Year 8

Year 9

Year 10

Year 11

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Safety & Security in Construction

Health & Safety Tools and machinery

Skills board
Sign Design

Making a frame using wood joints

Planning Construction Projects

Job roles

Unit 1 and Unit 3:
Vocational exams

Developing Construction Projects

Construction tasks in wood, painting & decorating and tiling

Controlled Assessment Unit 2:
Practicals and paperwork

Optional retakes of year 10 exams

Construction and the Built Environment KS4

(from Sept 22)

Year 7

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Year 8

*Design & Technology
KS3 Curriculum*

Year 9

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Year 10

Safety & Security in Construction

Health & Safety Tools and machinery

Skills board
Sign Design

Making a frame using wood joints

Planning Construction Projects

Job roles

Unit 1 and Unit 3:
Vocational exams

Year 11

Developing Construction Projects

Construction tasks in wood, painting & decorating and tiling

Controlled Assessment Unit 2:
Practicals and paperwork

Optional retakes of year 10 exams

Design & Technology GCSE

Year 7

*Design & Technology
KS3 Curriculum*

Year 8

*Design & Technology
KS3 Curriculum*

Year 9

*Design & Technology
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Year 10

Design contexts, briefs & specifications

User & Stakeholder needs & requirements

Practical & Design tasks – mini projects
Groupwork Competition
Project – Design Ventura

Dyson
Engineering Box

Product Analysis & Research

Design influences

Materials, manufacturing & technologies

Year 11

Developing, modelling & Presenting Designs

Generate & Test Design Proposals

Engineering Drawing Techniques

Computer Aided Design (CAD) and Computer Aided Manufacture (CAM)

3D Design Realisation

Mock Exam

Evaluating

NEA Coursework Submission

Written Examination