

KS3/4 DT Curriculum Map



Major Project

- Develop design ideas
- Realising ideas

Major Project

- Realising ideas
- Analysing and evaluating
- Exam preparation

Exams

Next Steps

Mock Exams, Revision and targeted support

<https://www.bbc.co.uk/bitesize/tags/zn7h8xs/jobs-that-use-design-and-technology/1>

YEAR 11

Academic Reflection

Major Project

- Producing design brief/specification
- Generate design ideas
- Model design ideas

Major Project

- Identifying a client
- Existing products
- Ergonomics/anthropometrics

Major Project

- Analysis of context
- Identifying design possibility
- Researching design possibility

Modelling project

- Research/Analysis
- Specification/ideas
- Modelling to scale

YEAR 10

Food & Nutrition 1

- Preparation and Cooking Techniques
- Preventing Bacterial Growth
- Functions of Nutrients
- Eatwell Guide: How age changes things!
- Dietary Needs of Teens
- Nutritional Labels

Food & Nutrition 2

- Practical Evaluation
- Food Assurance Scheme
- Functions of Ingredients
- Breaking Food Barriers
- Creating your Recipe Kit

DT

Bauhaus Laser Cut Clock

- Bauhaus design movement
- CAD/CAM 2D/Laser cutter
- Polymers

Design Based Candle Holder

- Design movements
- Designing for a client
- Working with metals

YEAR 9

Academic Reflection

- Modelling
- Shaping metal
- Soldering
- Finishing metal

Art Deco Candle Holder

- Art Deco design movement
- Processing metal
- Design Brief / Specification
- Design ideas

Food & Nutrition 2

- Dietary Needs of Groups
- Factors affecting Food Choice
- Function of Bread Ingredients
- Planning Healthy Meals
- Practical Sensory and Skills Evaluation

Food & Nutrition 1

- Personal and Food Safety
- Food Related Illnesses
- The Eatwell Guide Analysis
- Energy Balance
- Function of Protein
- Micro Nutrients

YEAR 8

Food & Nutrition 2

- Sensory Analysis
- Practical Evaluation
- Making Healthy Choices
- Environmental Issues
- Food Provenance
- Stir fry, muffins and Pastry Practical

Academic Reflection

- Card modelling
- CAD/CAM
- Modern designers
- Manufacture

Polymer Memphis Clock

- Memphis design movement
- Polymers
- The environment
- Idea generation

YEAR 7

Food & Nutrition 1

- Hazards & Equipment Safety
- 4C's of Food Safety
- Knife Skills
- 5 Main Nutrients
- Practical
- Eatwell Guide

Wooden Animal

- Timber/Woods
- Health & Safety
- Use of machinery to manufacture the wooden animal

Battery Tester

- Smart Materials
- Colour theory
- CAD 2D Design

We work with our primary school partners to make sure we get to know you and you get to know us and what we teach you links up and follows on from what you have learnt already

KS3/4 Food Curriculum Map

The sector also includes customer service roles, as well as working in the supply network that provides food and drink to other industries.

There are many degree courses that lead into Hospitality or Catering such as hospitality, leisure and tourism degrees.

Currently we offer Food Science & Nutrition at level 3.

You can become a porter, a chef, a hotel receptionist, a restaurant manager, chambermaid and many more careers.

Unit 2 EXAM Practical

Production plan

2.4.1 Assess the production of the presented dishes

2.4.2 Review your own performance.

Factors affecting choice

Impact of cooking methods

Menu

Unit 1 EXAM June

Revision

Next Steps

Apprenticeship

University

A Levels

Profess H & C Routes

YEAR 11

Unit 2 NEA

Intolerances

Micro nutrients

Dietary Needs

Allergies

Nutrition

Micro nutrients

1.1 1.2

1.3 1.4

1.3.2 HACCP requirements

1.3.1 Laws and legislations

Health and safety

1.2.2 Customer requirements

How providers operate

1.2.1 The operation of front and back of house

1.2.3 Provision to meet specific requirements

1.1.2 Job Roles

1.1.4 Factors affecting the success

1.4.2 Symptoms and signs of food induced ill health

1.4.3 Preventative control measures

Food Safety

1.4.1 Food related causes of ill health

1.4.4 The environmental health officer (EHO)

1.1.1 The structure of the industry

1.1.3 Working conditions of different job roles

Hospitality and catering provision

1.3.1 HACCP requirements

1.3.2 HACCP requirements

1.3.1 Laws and legislations

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Hospitality and catering provision

YEAR 10

Food Labelling

Allergy advice

Nutritional advice

Carbohydrates: Starches & Sugars

Culinary Skills

Pastry

Shaping meat

Sauce making

Food Safety

1.4.1 Food related causes of ill health

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Hospitality and catering provision

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Hospitality and catering provision

YEAR 9

Nutrition

Excess and deficiency

Protein: LBV & HBV

Symptoms of Food poisoning

Conditions for growth

Bacteria

Preparation and Cooking Techniques

Bread making

Shaping a mixture

Culinary Skills

Practical routine (recap)

Food Choice

Fairtrade: ethics

Diet and lifestyle

Food Labelling

1.1.1 The structure of the industry

1.1.3 Working conditions of different job roles

1.1.2 Job Roles

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Hospitality and catering provision

YEAR 8

Diet Analysis

Eat Well guide and nutrition

Sensory Analysis

Food Provenance

Food Miles

Nutrition

Healthy Eating – Recap eat well guide and nutrition

Food Poisoning

Food and Temperature

Accident Prevention

1.1.1 The structure of the industry

1.1.3 Working conditions of different job roles

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Hospitality and catering provision

YEAR 7

Culinary Skills

Using the hob & oven

Knife skills

Food Safety

The '4' C's

Bacteria and Hygiene

Health & Safety

Health and Safety within the kitchen and food.

In Year 7 learners will develop your basic understanding of nutrition learnt at KS2 and further develop culinary skills.

Key Stage 2 pupils are introduced to our curriculum through transition days and taster sessions!

KS3 DT Curriculum Map



KS4/5 Engineering Curriculum Map

40%

Unit 3: Exam

Exam Preparation

- Question Analysis
- Knowledge Retrieval

next

Higher Qualifications

Apprenticeship

Courses at SMCC

Creating Technical Drawings

3D Modelling

- OnShape

Product Evolution

- Make it Better
- Suit Target Market

Product Evaluation

- Improvement analysis
- Manufacturing Challenges

20%

Unit 2: Design

Develop Plan of Making

- Photo evidence of making the product

Practical Sessions

- Manufacture from Technical Drawing
- Apply Skills

Analysing Technical Drawings

- Annotations
- Descriptive Analysis

Applying Research

Year 11

Science in Engineering

- Applied Sciences

Maths in Engineering

- Algebra
- Geometry

Exam Preparation

40%

Unit 1: Manufacturing

Assessment Brief Released

Portfolio Preparation

Technical Drawing Development

- Further analysis
- Hand drawn diagrams

Equipment Analysis

- Tooling
- Machinery
- Justifications

Precision Cutting

- Templates
- Abra Saw
- Micrometers

Multi Tool Project

Year 10

Precision Marking

- Tooling
- Micrometers
- Tolerances

Polymers & Metals

- Origins
- Sustainability
- Manufacturing

Focus Marking Out

OnShape

- Axis Viewpoints
- Faces v Edges
- 3D Modelling

Focus Manufacturing

Technical Drawing

- Schematics
- Scales
- Symbols
- Expanded Views

Evaluation

CAD Mini Project

- 3D Models
- Filler Knife
- House
- Multi Tool

Filler Knife Project

- Engineering Sectors
- Industries
- Collaboration
- Careers
- Technology

Students learn vital Engineering skills such as reading technical drawings, accurate marking out, and precision manufacturing. Good understanding of Maths & Science (grade 4) will support learning.