

<b>Subject</b>	DT
<b>Term</b>	Rotation 1
<b>Duration (approx.)</b>	9 weeks
<b>Module</b>	Core Skills

**Skills and concepts to be developed and assessed (linking to identified AOs)**

- How to use CAD (computer aided design) to draw accurate and scaled engineering drawings
- How to produce CAD designs capable of being produced on a laser cutter (Computer Aided Manufacture CAM)
- How to use CAD to draw isometric shapes
- How to enhance drawings using shade, tone, line/dots and materials characteristics
- Use excel spread sheet to generate a star diagram
- Use 'Food in Focus' software to analyse the nutritional values in foods
- Understand how to read a food label
- Use ICT correctly to produce factual information literature

**Factual knowledge to be taught and assessed (including subject specific vocabulary).**

- Learn traditional methods suitable for illustrating design work through KS3 and KS4
- Learn how to confidently and competently use ICT software to enhance the design process through CAD and CAM
- Learn how to use ICT as an analytical tool in D&T

**Formative Assessment/key piece of work prior to end of unit:**

In this module we will be assessing the following:

AO1: Designing skills –D5

AO2: Making skills—M1

AO3: Evaluating—E3

AO4/AO5: Technical knowledge / Cooking and Nutrition—This unit will not specifically target these AO's as the work completed by students will help their overall competence in the designing process

**Summative Assessment**

All KS3 D&T projects are formally assessed at the end of each unit when an overall judgment will be made on:

- Acquiring skills
- Developing skills
- Proficient skills
- Excellent skills

**Building Retention: What prior learning must be built upon/revisited and how will it be assessed?**

This module will assume that all pupils will have had some experience of working with computers and packages like Word, Publisher, Excel and PowerPoints. They will not need any prior knowledge of using any computer aided design (CAD) programmes to be able to fully access the content of this module.

**Spelling-Punctuation-Grammar**

**How will you promote high standards within this module?**

Written work is checked and corrected using school policy and literacy codes. Keyword sheets are completed by students, check and corrected as necessary. Work will adhere to the school and department policy for presentation.

**Link forward: where next for the learning?**

After this module pupils will experience three different areas in D&T. Because D&T is one subject the systems pupils experience across each module will be seen again in subsequent modules even though the focus areas will be different.

Pupils complete each of the Design Technology units over a period of 9 weeks as a carousel

<b>Subject</b>	DT– Food
<b>Term</b>	Rotation I
<b>Duration (approx.)</b>	9 weeks
<b>Module</b>	Healthy Eating

Excellent skills

**Building Retention: What prior learning must be built upon/revisited and how will it be assessed?**

The module will assume that all pupils will have had some experience of cooking previously at school or at the home. However no prior knowledge is required for a pupil to fully access the course.

**Skills and concepts to be developed and assessed (linking to identified AOs)**

- Food safety and hygiene
- Correct and safe use of equipment
- Preparation of fruit and vegetables
- Skills of shaping, rolling, decoration
- Weighing, measuring
- Rubbing in method
- Baking

**Factual knowledge to be taught and assessed (including subject specific vocabulary).**

- Eat-well plate. Factors that must be considered in a healthy diet.
- How to select healthy ingredients according to their nutritional value.
- Sensory factors in food evaluation using terms related to texture, taste and appearance.
- Selecting the correct utensils for each operation.

**Formative Assessment/key piece of work prior to end of unit:**

In this module we will be assessing the following:

- AO1: Designing skills-D1
- AO2: Making skills-M1
- AO3: Evaluating-E3
- AO5: Cooking and Nutrition—N1, N2 , N3, N4

NB: the codes refer to the specific areas within each assessment objective (AO) in the national curriculum.

During the module pupils' performance will be judged against the AO's as they are completed.

**Summative Assessment**

All KS3 D&T projects are formally assessed at the end of each unit when an overall judgment will be made on:

- Acquiring skills
- Developing skills
- Proficient skills

**Spelling-Punctuation-Grammar**

**How will you promote high standards within this module?**

Written work is checked and corrected using school policy and literacy codes.

Keyword sheets are completed by students, check and corrected as necessary.

Work will adhere to the school and department policy for presentation.

**Link forward: where next for the learning?**

After this module pupils will experience three different areas in D&T.

Because D&T is one subject the systems pupils experience across each module will be seen again in subsequent modules even though the focus areas will be different.

Pupils complete each of the Design Technology units over a period of 9 weeks as a carousel

<b>Subject</b>	DT– Graphics
<b>Term</b>	Rotation 1
<b>Duration (approx.)</b>	9 weeks
<b>Module</b>	CD/Pop up mechanisms

**Skills and concepts to be developed and assessed (linking to identified AOs)**

- Writing specifications
- Analysis of user needs and designer responsibilities
- How to use Serif Draw Plus
- How to construct Pop-up mechanisms
- How to model design ideas
- How to peer assess
- How to evaluate products
- How to draw in oblique
- Writing with pictograms

**Factual knowledge to be taught and assessed (including subject specific vocabulary).**

- Copyrighting and why it is important to designers.
- Properties of paper and cardboard
- Facts about pop-up designer Robert Sabuda
- Key words and their definitions
- Typography/pictograms
- Pup up mechanisms

**Formative Assessment/key piece of work prior to end of unit:**

In this module we will be assessing the following:

AO1: Designing skills-D2, D3, D4

AO2: Making skills-M1, M2

AO3: Evaluating-E3

AO4: Technical Knowledge-T1

NB: the codes refer to the specific areas within each assessment objective (AO) in the national curriculum.

During the module pupils' performance will be judged against the AO's as they are completed.

**Summative Assessment**

All KS3 D&T projects are formally assessed at the end of each unit when an overall judgment will be made on:

- Acquiring skills
- Developing skills
- Proficient skills
- Excellent skills

**Building Retention: What prior learning must be built upon/revisited and how will it be assessed?**

The module will assume that all pupils will have had some experience of graphics / drawing at school or at the home. However no prior knowledge is required for a pupil to fully access the course.

**Spelling-Punctuation-Grammar How will you promote high standards within this module?**

Written work is checked and corrected using school policy and literacy codes.

Keyword sheets are completed by students, check and corrected as necessary.

Work will adhere to the school and department policy for presentation.

**Link forward: where next for the learning?**

After this module pupils will experience three different areas in D&T.

Because D&T is one subject the systems pupils experience across each module will be seen again in subsequent modules even though the focus areas will be different.

Pupils complete each of the Design Technology units over a period of 9 weeks as a carousel

<b>Subject</b>	DT– Resistant Materials
<b>Term</b>	Rotation 1
<b>Duration (approx.)</b>	9 weeks
<b>Module</b>	Creative Materials

## Summative Assessment

All KS3 D&T projects are formally assessed at the end of each unit when an overall judgment will be made on:  
 Acquiring skills  
 Developing skills  
 Proficient skills  
 Excellent skills

### Skills and concepts to be developed and assessed (linking to identified AOs)

- How to mark out, cut, drill, shape and form metals and plastics using hand tools
- How to work safely in a D&T workshop
- How to do vacuum forming
- How to apply heat using a brazing hearth
- How to connect simple electronic components using solder
- How to join metals and plastics
- How to create unique and creative designs in 2D and 3D
- How to develop products through modelling and evaluation

### Factual knowledge to be taught and assessed (including subject specific vocabulary).

- Learn facts about plastics and metals including their impact on the environment
- Learn how to create systems flow charts
- Learn how to draw simple schematic electrical diagrams
- Learn technical vocabulary for materials, processes and equipment used in their practical work

### Formative Assessment/key piece of work prior to end of unit:

In this module we will be assessing the following:

- AO1: Designing skills- D3, D4, D5
- AO2: Making skills-M1, M2
- AO3: Evaluating-E3
- AO4: Technical Knowledge-T1

NB: the codes refer to the specific areas within each assessment objective (AO) in the national curriculum.

During the module pupils' performance will be judged against the AO's as they are completed.

### Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

This module will assume that all pupils will have had some limited experience working with resilient materials at previous schools or home. However no prior knowledge is needed for pupils to fully access this course.

### Spelling-Punctuation-Grammar How will you promote high standards within this module?

Written work is checked and corrected using school policy and literacy codes. Keyword sheets are completed by students, check and corrected as necessary. Work will adhere to the school and department policy for presentation.

### Link forward: where next for the learning?

After this module pupils will experience three different areas in D&T. Because D&T is one subject the systems pupils experience across each module will be seen again in subsequent modules even though the focus areas will be different.

Pupils complete each of the Design Technology units over a period of 9 weeks as a carousel