

# Product Design

## Year 7

### Topics studied:

Design projects to develop understanding of design and key techniques for successful product development

- The design process: Through colour theory and logo design.
- Design techniques: SCAMPER and 4x4 design
- Reinforcement of the design process through a batch production teamwork project (Phone stand).
- Materials knowledge and understanding to include:
  - Material properties (natural wood, manufactured board and plastic (acrylic).
  - Cost of materials
  - Manufacture of a product (phone stand)
  - Evaluation of a product through use of design criteria and physical testing.

### Subject specific websites to support revision and independent learning:

<http://www.technologystudent.com/> - PRODUCT DESIGN - (INDUSTRIAL PROCESSES)

<http://www.technologystudent.com/> - GRAPHICS – (SELECTING THE RIGHT COLOUR)



# Product Design

## Year 8

### Topics studied:

Design and manufacture of a picture frame with a personalised fabric insert.

- The design process to support one off production for an individual style/theme.
- Design skills including:
  - Isometric drawing
  - 4x4 design
- Manufacture of a product using a range of materials:
  - Plywood, hardboard or MDF, Fabric (calico or polycotton), a range of decorative components.
- Evaluation of a product through use of design criteria and target market feedback.

### Subject specific websites to support revision and independent learning:

<http://www.technologystudent.com/> - RESISTANT MATERIALS – (AN INTRODUCTION TO MATERIALS)



# Product Design

## Year 9

### Topics Studied:

Design and manufacturing projects to reinforce and develop skills in preparation for controlled assessment.

Project 1 – Pool table

Processes and Manufacture-Product Manufacture

-Timber based materials

-Paper/card

-Product marketing

-Packaging

Project 2 – Novelty door stop

-Evolution of Product Design

- History of design

- Technology push/market pull

- Project 3 – USB stick

- Design in Practice

- Product development

- Plastics

- History of design

Project 4 –

Upcycling project

-Ethical, Environmental and Sustainability Issues

-Manipulating and Combining Materials

EXAM PREP

Communicating ideas and using prelim material.

Design Competition

-Design Methodology

**Exam Board:** AQA

### Assessment structure:

60% controlled assessment

40% exam

### Subject specific websites to support revision and independent learning:

<http://www.technologystudent.com/> -

### Recommended subject guides:

[https://www.cgpbooks.co.uk/Student/books\\_gcse\\_dt\\_product](https://www.cgpbooks.co.uk/Student/books_gcse_dt_product)

GCSE Design & Technology Product Design AQA Revision Guide - TPAR42

£5.95

ISBN: 978 1 84762 354

GCSE D&T Product Design AQA Exam Practice Workbook - TPAW42

£4.95

ISBN: 978 1 84762 390 4

GCSE D&T Product Design AQA Exam Practice Answers (for Workbook) - TPAA41

£2.00

ISBN: 978 1 84762 399 7

# Product Design

Year 10

**Topics Studied:**

Manufacture of a presentation box and gift to cover:

- Processes and Manufacture
- Product Manufacture
- Timber based materials
- Manipulating and Combining Materials

Controlled assessment: Design folio and product covering 5 assessment criteria.

1. Investigating the design context (8 marks)
2. Development of design proposals (including modelling) – 32 marks))
3. Making (32 marks)
4. Testing and evaluation (12 marks)
5. Communication (6 marks)

**Exam Board:** AQA

**Assessment structure:**

- 60% Controlled Assessment
- 40% Exam

**Subject specific websites to support revision and independent learning:**

<http://www.technologystudent.com/>

**Recommended subject guides:**

- [https://www.cgpbooks.co.uk/Student/books\\_gcse\\_dt\\_product](https://www.cgpbooks.co.uk/Student/books_gcse_dt_product)
- GCSE Design & Technology Product Design AQA Revision Guide - TPAR42 £5.95  
ISBN: 978 1 84762 354
- GCSE D&T Product Design AQA Exam Practice Workbook - TPAW42 £4.95  
ISBN: 978 1 84762 390 4
- GCSE D&T Product Design AQA Exam Practice Answers (for Workbook) - TPAA41 £2.00  
ISBN: 978 1 84762 399 7

**Additional Information:**

Criterion1, 2 and 3 to be submitted by W/B 13/07/15.

Extra provision available:

For practical work Wednesday 3:00pm – 4:00pm\*

For folio work Monday Lunchtime\*

\*Times to be confirmed based on 2015/16 timetable

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# Product Design

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Year 11

**Topics Studied:**

Criterion 1, 2 and 3 improvements based on feedback.  
Criterion 4: Testing and evaluation.  
Exam preparation:  
Prelim material revision and preparation from 01/03/16

**Exam Board:** AQA

**Assessment structure:**

60% controlled assessment  
40% exam

**Subject specific websites to support revision and independent learning:**

<http://www.technologystudent.com/>

**Recommended subject guides:**

[https://www.cgpbooks.co.uk/Student/books\\_gcse\\_dt\\_product](https://www.cgpbooks.co.uk/Student/books_gcse_dt_product)  
GCSE Design & Technology Product Design AQA Revision Guide - TPAR42 £5.95  
ISBN: 978 1 84762 354  
GCSE D&T Product Design AQA Exam Practice Workbook - TPAW42 £4.95  
ISBN: 978 1 84762 390 4  
GCSE D&T Product Design AQA Exam Practice Answers (for Workbook) - TPAA41 £2.00  
ISBN: 978 1 84762 399 7

**Additional Information:**

Final controlled assessment deadline W/B 19/10/15

