## Exam Board: AQA

**Specification:** <https://www.aqa.org.uk/subjects/design-and-technology/as-and-a-level/design-and-technology-product-design-7552/introduction>

## Things you will need to succeed in this course:

* Pens and pencils
* Highlighters
* A pencil case
* Colouring pencils
* Your own lined paper
* A lever-arch folder for storing work at home
* A ring-binder for work for the current unit

A pack of file dividers

A single-hole punch

(available from the school shop for £1)

A pair of scissors

Glue

Sketchbooks

## The books you need to buy are:

You could if you wish, buy the e-version which cost less, from the same website.

If you have not done D&T GCSE we recommend a read of AQA D&T Product Design ISBN 978-1-4085-0276-1 or AQA D&T Textiles ISBN 978-1-4085-0275-4

**For Further Reading:**

Magazines: Design Week, Wired, Gadget, Draper’s Record, Design Week

Websites: dezeen, technologystudent.com, BBC technology page, Guardian Technology, BSI, Intellectual Property

## Title Author Publisher ISBN No

Materials and Design Mike Ashby and Elsevier 0-7506-554-2

Kara Johnson

Nature in Design Alan Powers Conran Octopus 1-84091-257-X

The total Beauty of Edwin Datschefski Roto Vision 2-88046-545-1

Sustainable Products

Product Design Mike Baxter Stanley Thornes 0-7487-4197-6

The Dream Factory Alberto Alessi Koneman 3-8290-1377-9

Memphis Barbara Radice Rizzoli 0-8478-0569-7

Memphis Brigitte Fitoussi Thames and Hudson 0-500-01900-2

Design Secrets Products IDSA Rockport 1-56496-476-0

Design Secrets Products2 IDSA Rockport 1-59253-292-6

Ergonomics for Children: Valerie J. Berg Rice CRC Press 0-41530474-1

Designing Products and

# Places for Toddlers to Teens

# Studyguide for Ergonomics

# Rani Lueder 9-7804153047-4

#  for Children: Designing

#  Products and Places for

# Toddlers to Teens

#

#

**Trips**

BMW Manufacturing plant, Oxford

The Design Museum – approx £25

**Possible Trips**

Museum of Childhood - <http://www.vam.ac.uk/moc/visit/>

London Design Festival - <http://www.londondesignfestival.com/london-design-festival-va-new-0>

# Your Summer Bridging Work Task:

**Answer these exam questions:**

**1.** Describe the features and benefits of the following Intellectual Property rights to the owner.

*(a)* Copyright. [4]

(b) Registered Trade Mark. [4]

**2.** *Quantitative* and *qualitative* testing are important aspects to consider when selecting a material or materials for a specific product.

Explain what you understand by **each** of these terms. 2 x [4]

**3.** Describe **two** key properties of a named natural material and **two** key properties of a named synthetic material. 2 x [2]

Identify a specific product where **one** of these materials has been used and explain why the material was chosen. [4]

**4.** Ergonomics and anthropometric data are essential to the success of products.

Describe **two** examples in **each** of the following where:

*(a)* ergonomics is used to inform successful design in working environments; 2 × [2]

*(b)* anthropometric data is used to inform successful design in specific products. 2 × [2]

**Design and make task**

**Choose one of the following:**

*1.* CONTEXT: *Sustainable futures.*

BRIEF: Design and make prototype(s) for a product that will alleviate an environmental problem.

*2.* CONTEXT: *Sport and fitness.*

BRIEF: Design and make prototype(s) for a product that can be used in sports or fitness.

Above are the contexts of your project for year 12. To ensure you have the best possible start to the year you are required to the following pages listed below

of your folder and so should be detailed and beautifully presented, electronically or on A3 sheets.

**On your A3 sheets you must show the following:**

1. **Brief Analysis of the context**

Brainstorms, mood boards, developmental needs etc.

1. **Research of the design problem**

Evidence of the problem, photos of existing products in this area, potential target markets, questionnaires, (age groups)

1. **Product Analysis (2 pages)**

Choose at least 4 examples of existing solutions and analyse (describe and evaluate) using the following design aspects as mini headings:

*Function, Aesthetics, Manufacturing processes, Materials, Costs, Ergonomics, Durability, Environmental Sustainability, Maintenance and Social impact.*

Draw these solutions, if possible in use!

1. **Setting out client’s needs (problem solving/ finding opportunities)**

Final decision on your chosen target audience and their needs. What type of product do you intend to design and develop

1. **One page of initial ideas.**

Sketches of your first efforts to solve the design problem.

**Your work as stated above must be in by Friday 13 September**

**Staff contact:** **ega@cheney.oxon.sch.uk** **or** **bth@cheney.oxon.sch.uk**

Lauren Menzel, current year 12 student:

*Product Design is a course that has allowed me to be creative and make innovative products. During the course, we have sketched, modelled and developed ideas, solving problems in the real world.*

*Tips:*

*Don’t ignore the deadlines!*

*Use the layout of pages from the Welsh exhibition*

*Spread out the workload*

Hebe York, current year 12 student:

*The thing I enjoyed most about the course is that the course is flexible so you can adapt it to something that really interests you.*

*Tips:*

*Stick to deadlines so you can be finished by exam time at the end of the year*

*Do the pages and making as you go along instead of leaving a section to be rushed through at the end*