

Design and Technology

GCSE AQA

Recommended Text Books: AQA GCSE (9-1) Design and Technology ISBN: 978-1-910523-10-0 Author MJ Ross AQA GCSE Revision Design and Technology All-in-One Revision & Practice

ISBN 978-0-00-822740-1 Author Paul Anderson and David Hills-Taylor



Course Content

Course Content	Year	Theory and Practical Subject Knowledge
New and emerging technologies	10/11	Industry/enterprise/sustainability/environment/culture
Energy, materials, systems and devices	10/11	Energy/smart/modern materials/mechanical devices
Materials and their working properties	9/10/11	Papers/boards/timbers/metals/alloys/polymers/textiles
Specialists technical principles	9/10/11	Forces/stresses/six Rs/Scales of production/social footprint
Papers and boards	9/10/11	Sources/origins/properties/packaging
Timber based materials	9/10/11	Sources/origins/properties/prototypes
Metal based materials	9/10/11	Sources/origins/properties/prototypes
Polymers	9/10/11	Sources/origins/properties/prototypes/manufacturing
Textiles based materials	9/10/11	Sources/origins/properties/prototypes
Electronic	10/11	Sources/origins/properties/prototypes/components
Designing principles	9/10/11	Investigation/primary/secondary data/research/ iterative designs
Making principles	9/10/11	Select materials/management of materials/tools/equipment/ techniques/processes/surface treatments and finishes

Revision Guides are available form the school shop priced at £4.99.



Course Projects and Key Dates:

YR9		Term 1 Paper/Board	Term 2 Timber	Term 3 Textiles	Term 3 Polymer
Year	Theory	Packaging	Product	Product	Product
9	/practical	Designs	Designs	Designs	Designs
		Techniques/processes/	The work of others	The work of others	The work of others
		skills	Techniques/	Techniques/	Techniques/
		Properties	processes/skills	processes/skills	processes/skills
		CAD/CAM/CNC	Properties	Properties	Properties
		Prototypes	Surface finishes	Surface finishes	Manufactering
		Six Rs	Prototypes	Prototypes	Surface finishes
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,	Prototypes

YR9		Term 1	Term 1 & 2	Term 2	Term 3
10		Timber	Metal	Packaging	NEA Mock
Year 10	Theory /practical	Product Designs The work of others Techniques/processes/ skills Properties Surface finishes Prototypes New and emerging tech- nologies Energy, materials, systems and devices	Product Designs The work of others Techniques/ processes/skills Properties Surface finishes Prototypes New and emerging technologies Energy, materials, systems and devic- es	Product Designs The work of others Techniques/ processes/skills Properties Surface finishes Prototypes New and emerging technologies Energy, materials, systems and devices	See paper 2

Year 11	Practical/Theory 50%	Product NEA commences June 1st in Year 10 End date: February 2019
	Exam 50% Walk Talking Mock	2hr 24th May pm Will take place during school time in Mid-March
Extras Support	NEA—Coursework	Lunch-times in T4
	Revision	Week One: Wednesday and Thursday after-school Revision sessions
	A revision Day	A revision day will be offered during May half-term holidays



NEA Course Content—Commences June 2018

Non-exam assessment

What's assessed

Practical application of:

- Core technical principles
- Specialist technical principles
- Designing and making principles

How it's assessed

- Non-exam assessment (NEA) approximately 30–35 hours
- 100 marks
- 50 % of GCSE

What should students produce

- Substantial design and make task.
- Assessment criteria to include the following:
 - investigating
 - designing
 - making
 - analysing and evaluating.

In the spirit of the iterative design process, the above should be awarded throughout each stage of the design process.

Task(s)

- Contextual challenges to be released annually by AQA on 1 June, in the year before submission.
- Students will produce a working prototype and a portfolio of evidence (maximum 20 pages) to demonstrate the assessment criteria above.
- Work will be marked by teachers and moderated by AQA.



Course Content—End of Year 11

Specification at a glance

The qualification is linear, meaning students sit all their exams at the end of the course.

Paper 1

What's assessed

- Core technical principles
- Specialist technical principles
- Designing and making principles

How it's assessed

- Written exam: 2 hours
- 100 marks
- 50 % of GCSE

Questions

Section A: Core technical principles (20 marks)

Multiple choice and short answer questions assess broad technical knowledge and understanding.

Section B: Specialist technical principles (30 marks)

Several short answer questions (2-5 marks) and one extended response to assess a more in depth knowledge of technical principles.

Section C: Designing and making principles (50 marks)

Short and extended response questions, includes a 12 mark design question.

Find out more You can see full details of the new specification at: **aqa.org.uk/dandt**