

**Course Information:**

Course name: **Design and Technology GCSE**

Exam Board: **AQA**

Subject Code: **8552**

Timeline: Year 9 to 10

Course Structure:		
Unit title	Unit 1	Unit 2
Description	Written Paper 2 hours 100 marks Candidates answer all questions	Non-exam assessment (NEA): 30–35 hours approximately 100 marks
Course weighting	50%	50%

Summer 2 (roll up)	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
<b>3.1 Core technical principles</b>	<b>3.2 Specialist technical principles</b>	<b>4.4.4.3 Section C: Generating design ideas (20 marks)</b> <b>4.4.4.4 Section D: Developing design ideas (20 marks)</b>	<b>E:Realising design ideas (20 marks)</b> <b>4.4.4.6 Section F: Analysing &amp; Evaluating (20 marks)</b>	<b>Revision– Mock exam</b> <b>4.4.4.1 Section A: Identifying &amp; investigating design possibilities</b>	<b>1st JUNE = NEA start</b> <b>4.4.4.1 Section A: Identifying &amp; investigating design possibilities (10 marks)</b>
In order to make effective design choices students will need a breadth of core technical knowledge and understanding that consists of: new and emerging technologies energy generation and storage developments in new materials systems approach to designing mechanical devices materials and their working properties.  <b>Design and make task (DMA) eg.(Toy)</b>	In addition to the core technical principles, all students should develop an in-depth knowledge and understanding of the following specialist technical principles: selection of materials or components forces and stresses ecological and social footprint sources and origins using and working with materials stock forms, types and sizes scales of production specialist techniques and process  <b>Design and make (DMA) task eg. (paper base or mix materials)</b>	Research which includes testing and trialling of materials, pre-manufacturing items/components, joining techniques, finishes, manufacturing processes. Create a production plan that outlines processes, PPE, time, materials, tools & equipment and QC & QA task. Create or used (jigs, CAD & CAM, moulds, templates, patterns, formers) to ensure accuracy while making my product. Create an exceptional high quality prototype that looks original and has the potential to be commercial viable for the target client/user. NEA– practice	Write and compared the results of my final product against my design specification. Write about what I found difficult and easy while making my product. Explain how my production plan/schedule help me. Explain about the control devices you will use e.g. (template, stencil, jig, mould or CAD & CAM). Stating what were the advantages & disadvantages in using them. (include pictures of you making) Conduct a survey relating 3rd party client/users and state how I might modify a prototype.	Create a detailed contextual challenge analysis & plan for research . Evaluate at least 3 in detail existing/similar products (product analysis) annotated using ACCESS-FMM or CAFÉ QUE. Create a questionnaire/ conducted an interview.	Create a detailed contextual challenge analysis & plan for research . Evaluate at least 3 in detail existing/similar products (product analysis) annotated using ACCESS-FMM or CAFÉ QUE. Create a questionnaire/ conducted an interview. Create a mood board that focuses on a design movement /looking at the work of others. Composed a human factors research that links to my product. Write a comprehensive design brief & created a client or customer profile .

9-7	6-5	4-1
Candidates recall, select and communicate detailed knowledge and thorough understanding of design and technology, including its wider effects. They apply relevant knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks effectively. They test their solutions and work safely with a high degree of precision. They analyse and evaluate the evidence available, reviewing and adapting their methods when necessary. They present information clearly and accurately, making reasoned judgements and presenting substantiated conclusions.	Candidates recall, select and communicate sound knowledge and understanding of design and technology, including its wider effects. They apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test their solutions and work safely with precision. They review the evidence available, analysing and evaluating some information clearly, and with some accuracy. They make judgements and draw appropriate conclusions.	Candidates can communicate some knowledge and understanding of design and technology, including its wider effects. With some aid can apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test their solutions and work safely with some accuracy. They review the evidence available, analysing and evaluating some information clearly, and with little accuracy. They make judgements and draw basic conclusions.

**Course Information:**

Course name: **Design and Technology GCSE**

Exam Board: **AQA**

Subject Code: **8552**

Timeline: Year 11

Course Structure:		
Unit title	Unit 1	Unit 2
Description	Written Paper 2 hours 100 marks Candidates answer all questions	Non-exam assessment (NEA): 30–35 hours approximately 100 marks
Course weighting	50%	50%

Summer 2 (roll up)	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
<b>4.4.4.1 Section A: Identifying &amp; investigating design possibilities (10 marks)</b>	<b>4.4.4.1 Section A: Identifying &amp; investigating design possibilities (10 marks)</b> <b>4.4.4.2 Section B: Producing a design brief &amp; specification (10 marks)</b>	<b>4.4.4.3 Section C: Generating design ideas (20 marks)</b> <b>4.4.4.4 Section D: Developing design ideas (20 marks)</b> <b>4.4.4.5 Section E: Realising design ideas (20 marks)</b>	<b>E: Realising design ideas (20 marks)</b> <b>4.4.4.6 Section F: Analysing &amp; Evaluating (20 marks)</b>	<b>Revision- 3.1 Core technical principles</b>	<b>Revision – 3.2 Specialist technical principles</b>
Create a detailed contextual challenge analysis & plan for research . Evaluate at least 3 in detail existing/ similar products (product analysis) annotated using ACCESS-FMM or CAFÉ QUE. Create a questionnaire/conducted an interview. Create a mood board that focuses on a design movement /looking at the work of others. Composed a human factors research that links to my product. Write a comprehensive design brief & created a client or customer profile .	Write a comprehensive research analysis & a comprehensive, clear a specific design specification. Sketch, adding colour to at least 4 2d and 3d initial ideas based on a creative techniques. Evaluate all my design ideas against my design specification. Draw 2 best ideas with suggested modifications. Use drawing techniques. Model, test and evaluate ideas. Use the 6 Rs analysis to evaluate the model/s. Use 2d design CAD to create a 4x4 design development of my best idea. Used CAD to create a working drawing in orthographic view.	Research which includes testing and trialling of materials, pre-manufacturing items/components, joining techniques, finishes, manufacturing processes. Create a production plan that outlines processes, PPE, time, materials, tools & equipment and QC & QA task. Create or used (jigs, CAD & CAM, moulds, templates, patterns, formers) to ensure accuracy while making my product. Create an exceptional high quality prototype that looks original and has the potential to be commercial viable for the target client/user.	Write and compared the results of my final product against my design specification. Write about what I found difficult and easy while making my product. Explain how my production plan/ schedule help me. Explain about the control devices you will use e.g. (template, stencil, jig, mould or CAD & CAM). Stating what were the advantages & disadvantages in using them. (include pictures of you making) Conduct a survey relating 3rd party client/users and state how I might modify a prototype.	In order to make effective design choices students will need a breadth of core technical knowledge and understanding that consists of:  new and emerging technologies energy generation and storage • developments in new materials • systems approach to designing • mechanical devices • materials and their working properties.	Selection of materials or components • forces and stresses • ecological and social footprint • sources and origins • using and working with materials • stock forms, types and sizes • scales of production • specialist techniques and processes • surface treatments and finishes. Each specialist technical principle should be delivered t  The categories through which the principles will be delivered are: • papers and boards • timber based materials • metal based materials • polymers •

9-7	6-5	4-1
Candidates recall, select and communicate detailed knowledge and thorough understanding of design and technology, including its wider effects. They apply relevant knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks effectively. They test their solutions and work safely with a high degree of precision. They analyse and evaluate the evidence available, reviewing and adapting their methods when necessary. They present information clearly and accurately, making reasoned judgements and presenting substantiated conclusions.	Candidates recall, select and communicate sound knowledge and understanding of design and technology, including its wider effects. They apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test their solutions and work safely with precision. They review the evidence available, analysing and evaluating some information clearly, and with some accuracy. They make judgements and draw appropriate conclusions.	Candidates can communicate some knowledge and understanding of design and technology, including its wider effects. With some aid can apply knowledge, understanding and skills in a range of situations to plan and carry out investigations and tasks. They test their solutions and work safely with some accuracy. They review the evidence available, analysing and evaluating some information clearly, and with little accuracy. They make judgements and draw basic conclusions.