Design and Technology

Exam Board & course code			
AQA GCSE Design and Technology 8552			
Topics that will be taught			
Year Group	Autumn Term	Spring Term	Summer Term
Year 10	• **Introduction to Creativity and Design -** Students will undertake a variety of mini tasks to investigate design and its wider implications. They will begin to understand how to design for the needs of a client and draw on influences from iconic designers and movements. They will learn different methods of designing and will develop technical drawing skills that they can take further into future projects. • **Ergonomics & anthropometrics Handheld Product Project** – Following on from their introduction to design and creativity, students will have the opportunity to work to a set brief in order to design and model a product that focuses on the principles of good ergonomics and anthropometric data. The brief will be to design and model a developed design for a small hand held device. It must be comfortable to use by the intended user. They will research, design, and model their product independently while also learning about the working properties of polystyrene foam.	• **Clock Project – Context is 21st century home, mini NEA project.** Students will be researching, designing, modelling and making a clock for their home. They must use a range of Resistant Materials. • **Theory - Core technical principles, Specialist technical principles & Designing and making principles** In preparation for Exams, students will learn about a range of theoretical topics needed for their exams. They will focus on their chosen specialist technical areas which are woods and plastics learning about materials, their working properties, manufacturing processes, Environmental, Social, Ethical, Moral, and Cultural issues. They will be practicing exam techniques, learning how to answer different types of exam questions.	**Introduction to NEA (Non Exam Assessment)** – AQA contextual challenges released on the 1st June. Students begin Assessment Objective 1 of their NEA. **AO1** • **Identifying and investigating design possibilities** • **Producing a design brief and specification** Students will begin the research section of their NEA which counts for 50% of their final grade for DT. They will be given a set context from the AQA board which they must work to. • They will find their own client and independently research, design, plan and make a final product to be submitted for assessment along with an E-Portfolio. This will continue through to March in Yr 11.

Year 11	Students continue with Assessment Objective 2 of their NEA projects. **<u>AO1</u>** • **Identifying and Investigating Design possibilities** • **Producing a Design Brief and Specification** **<u>AO2</u>** • **Generating Design Ideas** • **Developing Design Ideas** • **Realizing Design Ideas** **<u>AO3</u>** • **Analysing & Evaluating** • NEA counts for 50% of their final grade for DT. They will be given a set context from the AQA board which they must work to. They will find their own client and independently research, design, plan and make a final product to be submitted for assessment along with an E-Portfolio. **NEA (Non Exam Assessment) = 50% of the final grade.** **Final Exam (2 hours) = 50% of the final grade.**	• During this term students will be continuing to work on Assessment Objective 2 and begin Assessment Objective 3 in their NEA Projects. • Students will be focusing on **'AO2 – Developing design ideas and Realizing Ideas. Students will be working on their Manufacturing specifications and planning the final making. They will make their final working prototypes in this term and go on to** **AO3 - Analysing & Evaluating their finished products.** • A fully detailed and justified product/manufacturing specification will be produced • Students will produce their final outcome. This should show a high level of making, modelling, finishing skills and accuracy • Students will test and fully evaluate their final outcome.	• During this term students will be preparing for their written examination • Revising topics covered in Year 10 Completing practice questions and papers, along with looking at examination paper mark schemes.

	NEA will continue through to early **<u>March</u>** which is the final deadline. There will also be a full exam paper during the mock exam period in November. • Students will be focusing on '**AO2 – Generating design ideas and Developing design ideas. Students will be working on the Development of their Design Proposals (including modelling**)' • Developing an understanding of how to select and use materials and manufacturing methods with full regard to their working properties. • Developing and understanding the implications of a wide range of issues including social, moral, environmental and sustainability • Carrying out detailed testing and evaluation throughout the iterative process, designing, modelling and making of their ideas. • Evaluating the design ideas against the requirements of the design criteria • Students will develop their chosen idea through experimentation with a wide variety of techniques and modelling in order to produce a final design solution		

What parents can do to support learning	Useful links and resources
• Encourage students to visit exhibitions and museums. • Encourage wider reading around the subject. • Encourage students to evaluate their practical work the same day whilst it is still fresh in their mind. • Encourage students to be independent learners. • Monitor that deadlines are being met.	www.technologystudent.com www.bbc.co.uk/schools/gcsebitesize/design/ www.designmuseum.org www.robives.com ○ The AQA Product Design textbook covers all knowledge needed for the exam and gives examples of how to set out and complete the controlled assessment. ○ CGP revision guide for Design and Technology (this also comes with a practice questions booklet)