CHS Curriculum Intent

SUCCESSFUL: Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

CREATIVE: Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

HAPPY: Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

CHS Curriculum Area Framework for Learning – Design and Technology – Year 11

SUBJECT	**Design Technology**
INTENT	Design and Technology exposes students to a wide range of areas relating to not only how products are designed and made, but also gives and insight into the justification for using and avoiding materials, considerations for Sustainability and explore how historical developments have led to more advances manufacturing processes, as a result, GCSE Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental and economic factors, as well as be able to practice and develop some practical skills not only in designing but when working with a range of materials. It is our hope this developed student's creativity as well as problem solving skills when designing and making and apply technical and practical expertise.

Department: **Computing and Technology 2020-2021**

Subject: AQA Design Technology (8552)

Year Group	**11**
Rationale/ Narrative	This academic Year students in Year 11 will be working to restore previous learning and skill application following a period of school closure. This means using the academic year to not only recall knowledge and understanding but to also develop new skills with the ongoing NEA project launched in June 2020. Year 11 sees the students complete their 'Non Examined Assessment/NEA) - A major piece of course work that is worth 50% of the final qualification. Students will utilize knowledge and skills acquired over the previous academic year to enable them to work independently, whilst also practicing and developing examination skills for their terminal examination at the end of Year 11.

CHORLTON HIGH SCHOOL: Technology Curriculum

	Autumn 1 (7½ weeks)	Autumn 2 (7 weeks)	Spring 1 (6 weeks)	Spring 2 (6 weeks)	Summer 1 (6 weeks)
KNOWLEDGE	Throughout the course of NEA task being completed this term (having been started at the end of Summer 2) there are a number of key knowledge areas that students will have to apply to their learning and evidence in a portfolio of work including in: • **Core technical principles:** New and emerging technologies, Energy generation and storage, Developments in new materials, Systems approach to designing, Mechanical devices, Materials and their working properties. • **Specialist technical principles:** Selection of materials or components, Forces and stresses, Ecological and social footprint, Sources and origins of materials, Using and working with materials, Stock forms, types and sizes, Scales of production, Specialist techniques and processes, Surface treatments and finishes, Materials (Relevant to NEA task being completed) • **Designing and making principles:** Investigation, primary and secondary data, Environmental, social and economic challenge, The work of others, Design strategies, Communication of design ideas, Prototype development, Selection of materials and components, Tolerances, Material management, Specialist tools and equipment, Specialist techniques and processes. Specific contextual challenges for this academic cycle of NEA's included: • Multifunctional living • Teenage lifestyles • Nature and the Environment				In the weeks immediately prior to the written examination, students will recall knowledge from Year 9 and Year 10 of the course.
SKILLS	The NEA project in its entirety should take between 30-35 hours to complete and consist of a working prototype and a concise portfolio of approximately 20 pages of A3 paper. Students must demonstrate skills in applying the above knowledge to the six assessment areas; • Researching and investigating (A) • Writing a design brief (B) • Generating ideas (C) • Developing ideas (D) • Realising an idea (E) • Reflecting and evaluating (F) Alongside the areas assessed and the skills that are demonstrated in these categories, students' needs to show independence, creativity and analytical thinking skills throughout the NEA task.				Students will be exploring a range of revision strategies and techniques in Design and Technology in order to be able to answer a range of examination questions found within the written paper: • **Section A** - A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding • **Section B** - Several short answer questions (2–5 marks) and one extended response to assess a more in-depth knowledge of technical principles • **Section C** - A mixture of short answer and extended response questions.

ASSESSMENTS	• **Classwork piece –** A02 Section C: Producing Design Ideas (20 Marks) • **Classwork piece –** A02 Section C: Developing Design Ideas (20 Marks)	• **College Entry Examination** - past paper • **Classwork piece –** AO2 Section E: Realising Design Ideas (20 Marks) • **Classwork piece –** A03 Section F: Analysing and Evaluating (20 Marks)	Throughout Spring 1 there may be some interventions and review of NEA tasks to support students' progress. • **Classwork piece –** Section B/C exam question: Industry, Enterprise and New Technologies • **Classwork piece –** Section B/C exam question: Energy generation and storage	• **Pre Public Examination** – a second past paper. • **Classwork piece –** Section B/C exam question: Ecological and social footprint, Sources and origins of materials • **Classwork piece –** Section B/C exam question: Specialist techniques and processes	**Assessment tasks for this half term will solely focus on practice exam questions and marked in line with exam mark schemes which will help support the students prior to the final exam.** Examination questions and sample questions will be used to help familiarise students with the examination format and the methods of marking used by examiners. Students will unpick the mark schemes as well as possible responses to questions to structure the answers to the marks available.