Curriculum Information 2017-18

DESIGN & TECHNOLOGY

1. Key Stage 3

To follow

2. Key Stage 4

KS4 How to support your son at home		Design & Technology
What sorts of independent work / homework will my son get?	**How you can help**	**Useful resources and links**
Product Design Homework is set based on the topics taught in class and according to the schemes of work. Independent work involving the revision of key skills is considered vital to increasing your child's current performance grade, as well as frequently completing past exam papers and self-marking them. Exam question every lesson starter and homework. Every single lesson will be dedicated to theory/exam practice, while the controlled assessment is taking place ***Food & Nutrition*** Topics to revise and develop: • Food, nutrition and health	Encourage your son to regularly revise all topics. He could build a glossary from key terms each week. This way you can share in the learning of difficult technical vocabulary. This glossary can help with exam questions and coursework. ***Food & Nutrition*** Every single lesson will be dedicated to theory/exam practice, while the controlled assessment is taking place	Exam board course link: http://www.aqa.org.uk/subjects/design-and-technology/gcse/design-and-technology-product-design-4555/past-papers-and-mark-schemes Recommended revision sites www.technologystudent.co.uk www.bbcbitesize.co.uk Books AQA GCSE Design & Technology: Product Design (Nelson Thornes) GCSE Design & Technology Product Design AQA Revision Guide (CPG) GCSE Design & Technology Graphics AQA Revision Guide (CPG) ***Food and Nutrition*** https://www.youtube.com - Inside The Factory, Heston's Fantastical Food Books New Grade 9-1 GCSE Food Preparation & Nutrition - Complete

Curriculum Information 2017-18

• Food science • Food safety • Food choice • Food provenance	Check your son has completed homework Check that your son is attending catch up sessions for coursework Discuss and propose a revision schedule for the exam unit	Revision & Practice (with Online Edition) CPG New Grade 9-1 GCSE Food Preparation & Nutrition - AQA Revision Guide (FNAR41) (CPG)

3. Assessment Criteria (KS3 and 4)

STEPS to Success criteria					DESIGN TECHNOLOGY
Step	**Research**	**Investigation & Communication**	**Design & Refine**	**Making H&S**	**Analysis & Evaluation**

Curriculum Information 2017-18

9	Conduct relevant, detailed and concise research into how ingredients work and justify the reasons why Give detailed explanation showing a high level of understanding of how the research has been used to inform the practical investigation.	Communicate their plans clearly so that others can implement them Match and select suitable materials considering their fitness for purpose	(Generating) Produce 3D models to develop and communicate ideas Use mathematical modelling to indicate likely performance before using physical materials and components, for instance when developing circuits or gearing systems Give oral and digital presentations and use computer-based tools (Understanding) Produce 3D models to develop and communicate ideas Use mathematical modelling to indicate likely performance before using physical materials and components, for instance when developing circuits or gearing systems Give oral and digital presentations and use computer-based tools	Exploit the use of CAD/CAM equipment to manufacture products, increasing standards of quality, scale of production and precision Apply a range of finishing techniques, including those from art and design, to a broad range of materials including textiles, metals, polymers and woods (Planning) Select appropriately from a wider, more complex range of materials, components and ingredients, taking into account their properties such as water resistance and stiffness	Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups Communicate the evaluation in a structured and coherent manner with key-terms and accurate use of technical language.
5	Provide detailed evidence of planning, with an explained approach to the investigation.	**C**reate production schedules that inform their own and others' roles in the manufacturing of products they design Make simple use of planning tools, for instance Gant charts	(Generating) Develop detailed design specifications to guide their thinking Use research including the study of different cultures, to identify and understand user nee Identify and solve their own	Use a broad range of manufacturing techniques including handcraft skills and machinery to manufacture products precisely (Planning) communicate their plans clearly so that others can	Actively involve others in the testing of their product Take products through disassembly to determine how they are constructed and function

Curriculum Information 2017-18

			design problems (Understanding) **C**onsider the influence of a range of lifestyle factors and consumer choices when designing products Take creative risks when making design decisions **C**onsider additional factors such as ergonomics, anthropometrics or dietary needs	implement them (Planning) match and select suitable materials considering their fitness for purpose (Planning) match and select suitable materials considering their fitness for purpose	
3 2 1	Identify how the research may be used to inform the investigation. Produce some basic planning which shows the approach to the investigation.	Communicate their ideas using written and verbal communication techniques. Select some materials based on their properties. Identify some needs of a client.	Plan their design in good detail and can sketch effectively in 2D and 3D. Make detailed planning and design in 2D and 3D. Colour designs using some tone and consistency.	Work safely to manufacture a unique, functioning/simple design, Use basic hand tools safely and accurately.	Evaluate their designs and suggest improvements.
Foundation	Conduct some basic research	Conduct a limited investigation	Plan and draw a simple 2D design.	Use basic hand tools safely	Describe some ways to improve their work.