



Subject Specific Revision – Eduqas Design and Technology (Product Design)



Subject: The WJEC Eduqas GCSE in Design and Technology (Product Design)	Support:
<p>2 Components – 50%/50% split</p> <p>Component 1 – INTERNALLY marked, Externally moderated Non-Examination Assessment - Contextual Challenge 35 Hours – Design Process</p> <p>Demonstrates knowledge and understanding of the following core designing and making principles, in the context of a sustained design and make activity.</p> <ul style="list-style-type: none">• Work within a context which will inform the outcome• Identify and understand client and user needs• Write a design brief and specifications• Identify opportunities and constraints that influence the processes of designing and making• Explore, develop, test, critically analyse and evaluate ideas• Investigate and analyse the work of others• Use different design strategies to generate initial ideas• Develop, communicate, record, and justify design ideas• Design and develop at least one prototype* that is fit for purpose• Make informed and reasoned decisions to identify the potential for further development• Select and work with appropriate materials and components to produce a prototype• Use appropriate and accurate marking out methods; work within tolerances; understand efficient cutting and minimise waste• Use specialist tools and equipment, appropriate to the materials or components used, to create a specific outcome• Use specialist techniques and processes to shape, fabricate, construct, and assemble a high-quality prototype, as appropriate to the materials and/or components being used• Use appropriate surface treatments and finishes <p>Component 2 – EXTERNALLY marked 2-hour examination.</p>	<p>Revision books/Resources</p> <p>Resource booklets to be given out in class.</p> <p>Homework to support extension of knowledge.</p> <p>Workshops/worksheets</p> <p>Lunchtime and After School clubs when these are allowed.</p> <p>BBC bitesize Design and Technology</p> <p>WJEC Eduqas Design Technology textbook – Holder Education</p> <p>My Revision notes: WJEC Eduqas GCSE (9-1) Design and Technology – Holder Education</p> <p>Many other resources offered to students in class, and links placed on Class Charts.</p>

Core knowledge and understanding is presented in five clear and distinct topic areas:

- **Design and technology and our world**
- **Smart materials**
- **Electronic systems and programmable components**
- **Mechanical components and devices**
- **Materials**

In-depth knowledge and understanding in a distinct topic area:

- **Natural & manufactured timber**

Through studying GCSE Design and Technology, students will be prepared to participate confidently and successfully in an increasingly technological world and be aware of, and learn from, wider influences on design and technology, including historical, social/cultural, environmental and economic factors.

The subject enables students to work creatively when designing and making and apply technical and practical expertise, to:

- Demonstrate their understanding that all design and technological activity takes place within contexts that influence the outcomes of design practice
- Develop realistic design proposals because of the exploration of design opportunities and users' needs, wants and values
- Use imagination, experimentation and combine ideas when designing
- develop the skills to critique and refine their own ideas whilst designing and making
- Communicate their design ideas and decisions using different media and techniques, as appropriate for different audiences at key points in their designing
- Develop decision making skills, including the planning and organisation of time and resources when managing their own project work
- Develop a broad knowledge of materials, components and technologies and practical skills to develop high quality, imaginative and functional prototypes
- Be ambitious and open to explore and take design risks to stretch the development of design proposals, avoiding clichéd or stereotypical responses
- Consider the costs, commercial viability, and marketing of products
- Demonstrate safe working practices in design and technology