



# St Benedict's Catholic School

The Catholic Secondary School for West Suffolk

## Design and Technology Product Design Curriculum Guide

### Year 11

#### Autumn

##### Assessment focus

Pupils will continue to be assessed against the exam board criteria A-E, to ensure they are meeting the necessary evidence for their NEA.

*Criteria A – Identifying opportunities (10 marks)*

*Criteria B – Design Brief and Specifications (10 marks)*

*Criteria C – Ideas & Development (30 marks)*

*Criteria D – Planning and Making (30 marks)*

*Criteria E – Evaluation & Analysis (20 marks)*

In September pupils will continue their NEA coursework. Criteria A is usually completed either by the end of the previous summer term (year 10), or by the end of September. This should include a comprehensive investigation of the given contexts, extensive visual research into influences and existing related products, plus personal reflections, analysis, and decisions on possible outcomes.

Pupils will then spend 2 weeks on Criteria B, writing up their Design Brief & Specifications (Criteria B). The Specifications should be detailed and include objective and subjective testing opportunities, to enable them to demonstrate what it is they want to find out.

From October until Christmas pupils will undertake in-depth ideas investigations of their proposed product. In Criteria C, (approx. 7-8 weeks) pupils will be encouraged to explore a wide range of design strategies to ensure they have considered a range of modelling and testing queries. Pupils should also ensure that they record their analysis, decisions and justifications and consider the needs, wants and values of their potential customers. This section of the NEA is worth 30%, therefore it needs to be as comprehensive as possible. The last part of Criteria C is the final proposal – a 'working drawing' with detailed views, dimensions, materials choices, finishes, plus manufacturing techniques & processes.

During this time (November), pupils will undertake 2 weeks of subject mocks, to help gauge specialist knowledge and possible gaps. They will sit a full length (2 hour) paper. Throughout the year pupils will be given exam practice questions to ensure their knowledge is current. Topics included are, materials (traditional, smart, composite & modern), product analysis, mechanisms, electronics, new energies, manufacturing methods and social, moral, economic & environmental issues. Other key design concepts such as, ergonomics, anthropometrics, planned obsolescence, quality control and legislation are taught, and pupils will look for opportunities to apply this acquired knowledge into their project work.

#### Spring

After Christmas, pupils will start to plan and make their final prototype. If they have modelled it well (in C), this should be relatively straightforward. They will start by making a comprehensive 'making plan' to help communicate their intentions. They will then make their final product recoding a visual diary as evidence of the processes and techniques they employed.

When their final product is completed, they will complete Criteria E, which focuses on analysis and evaluation. This is not a 'tag on' approach but looks to see how they have analysed and evaluated throughout their project, as well as final personal reflections on their final outcome. They will gather peer feedback, analyse this, and then make relevant and realistic modifications based on this feedback as well as their own thoughts and experiences.

#### Summer

Just before Easter and then up until study leave the focus will be on gaining further theoretical knowledge, as well as revision of covered topics and exam question practice.

The Product Design exam is usually in June but can sometimes be as early as mid-May.

## Assessment and Homework Expectations

Assessment during year 11 is based around the NEA, Exam practice questions and mocks.

The GCSE course has two different assessment elements.

1. A non-exam assessment task (N.E.A) marked out of 100 marks across 5 different criteria and worth 50% of the final weighting. Students begin the NEA task after June 1<sup>st</sup> when the Exam Board have provided the given contexts to the task.

Assessment Criteria		Marks	Assessment objective
(a)	Identifying and investigating design possibilities.	10	AO 1
(b)	Developing a design brief and specification.	10	
(c)	Generating and developing design ideas.	30	AO 2
(d)	Manufacturing a prototype.	30	
(e)	Analysing and evaluating design decisions and prototypes.	20	AO 3
		Total	100

2. A two-hour theory exam paper marked out of 100 marks and worth 50% of the final weighting. This exam is taken at the end of Year 11.

Homework tasks are set regularly over the year. The work is centred on gaining further knowledge and consolidation of theoretical facts. The tasks can be personal investigation, referencing given resources and web pages and also EPQs (exam practice questions).

The homework will predominately help pupils to enhance and inform their exam performance, but also allows them to apply the knowledge to the NEA portfolio body of work.

### Resources:

Exam Board: WJEC (Eduqas)

To find out further information regarding this particular course, please follow the link below.

[https://www.eduqas.co.uk/qualifications/design-and-technology-gcse/#tab\\_overview](https://www.eduqas.co.uk/qualifications/design-and-technology-gcse/#tab_overview)

[Focus eLearning by Focus Educational Software Ltd.](#)

[ENGINEERING - DESIGN AND TECHNOLOGY \(technologystudent.com\)](#)

Theory/ reading:

WJEC Eduqas GCSE (9-1) Design and Technology. ISBN-13 : 978-1510451346

Pocket Posters: The Pocket-Sized GCSE Design & Technology Revision Guide (Daydream Education)

CGP GCSE Design & Technology AQA Revision Question Cards. ISBN-13 : 978-1789084115

### Extra and Super Curricular Opportunities

Students will have the opportunity to attend workshop catch up sessions at lunchtimes during the week to gain further one to one support as they need it and develop their skills/projects. We will have a full day off timetable to enable catch-up (this is generally during the making part of the NEA – Criteria D).

Trips to relevant museums such as the Design Museum or Silverstone are an opportunity for students to develop their knowledge of product design, design movements and key designers and inform them as to possible career opportunities.