



JOHN F KENNEDY
CATHOLIC SCHOOL

INSPIRE • ACHIEVE • SERVE

Year 11 Raising Achievement

IN GCSE DESIGN AND TECHNOLOGY

Some background....



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Assessment for the course is split between:

- The NEA (project)
- The written exam Both are worth 50% of the GCSE

....more background....



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The content of the subject is taught in 3 sections:

1. The core technical principles
2. The specialist technical principles
3. Designing and making principles

This is where the Textiles and D&T divide happens - students following the Textiles specialism have learned about textiles materials in greater depth

The core

- New technologies
- Energy
- New materials
- Systems approach
- Mechanical devices
- Introduction to all materials

The specialism

- Selecting materials
- Forces and stresses
- Ecology
- Sources
- Using materials
- Stock forms
- Scale of production
- Specialist techniques
- Surface finish

Designing and making

- Investigation
- Environment, social, economic
- The work of others
- Design strategies
- Communication of designs
- Prototype development
- Selection of materials and tools
- Tolerances
- Materials management
- Specialist tools
- Specialist techniques

NEA (project) worth 50% of the GCSE



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Project tasks	NEA marks
Research	10
Design brief and specification	10
Generating ideas	20
Developing ideas	20
Realising ideas	20
Analysing and evaluating	20
TOTAL	100

Written paper



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Section and style of question	% of the GCSE
A - Core 10 multiple choice marks and 10 marks for short answer questions	10%
B - Specialist Longer answer questions	15%
C - Designing and making principles Mixture of short and longer answer questions	25%

Exam questions - long answer



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The product - a powered, adjustable reclining chair.

Analyse and **evaluate** this product, considering how effective this design might be for use in a **hospital waiting room**.

8 marks available



Exam questions - long answer



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How would the 8 marks be awarded?

It's not just 8 features of the chair

Analyse - this part of the question requires students to show some understanding of how the chair would 'work' in the hospital waiting room by using their design strategy knowledge - ergonomics, working environment, materials selection, safety etc They could look for features that would work well and some that wouldn't - and explain why.



Exam questions - long answer



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How would the 8 marks be awarded?

It's not just 8 features of the chair

Evaluate - for each of the points that students raise about the chair they can make a judgement about whether it's a good thing or a bad thing or even both! They can then 'finish' the question with a concluding judgement.



Exam questions - long answer



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How would the 8 marks be awarded?

Planned Answer

Positive	Negative
Comfortable lift idea for elderly / poorly people - might make them feel safe/cared for/relaxed	Shape might not be easy to keep clean because of grooves - cleaning in hospitals is really important to reduce infections spreading
Material might be easy to clean as it has a shiny surface - hygiene important - stops infection	Takes up a lot of room where most waiting rooms have smaller plastic chairs - can't get many people sat in waiting room
Nice for comfort but impractical size, cost etc	



Make Practice questions!



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Products



Situations



5 things to raise achievement in D&T



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1. **Get the NEA finished!** - completing all sections of the NEA including the evaluation section is really important - there are good marks available in each section
2. **Do ½ an hour!**.....
3. **Use the resources:**
 - a. Quick questions on revision cards
 - b. Use the **Theory Units on google classroom**
 - c. Use the past papers and mark schemes to practice longer answer questions
 - d. **Seneca online** for just going over the content!
4. **Wallpaper** (read, reduce, write - colour code - topics positioned on the wall)
5. **Question what's around you** - pick up products - think about what people need - listen to the news