

RAISING ACHIEVEMENT

IN GCSE DESIGN AND TECHNOLOGY

Some background....

Assessment for the course is split between:

- The NEA (project)
- The written exam

Both are worth 50% of the GCSE

....more background....

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 Product Design 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)

Project tasks	% of the GCSE
Research	5%
Design brief and specification	5%
Generating ideas	10%
Developing ideas	10%
Realising ideas	10%
Analysing and evaluating the prototype	10%

Written paper

Section and style of question	% of the GCSE
A - Core 10 multiple choice plus 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

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





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.



How would the 8 marks be awarded?

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.



How would the 8 marks be awarded?

Answer plan

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!

Products

S



5 things to raise achievement in D&T

1. Do everything possible in the next 2 weeks to **get the physical product finished**
2. **Do ½ an hour!**.....
3. **Use the resources:**
 - a. quick questions on the cards
 - b. Use the 2, 3 and 4 mark questions in the workbook
 - 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