

'A' Level Product Design

Topic 4

Smart materials

Develop an understanding of the following type of materials. You should aim to include the following

- Information about the key features, eg abrasion resistance, toughness, heat resistance, aesthetics, costs and ethical consideration special properties etc
- 2. What is a smart material
- 3. Everyday usage, real world products
- 4. limitations, what can it not be used for
- 5. Can they be enhanced to improve their performance and usefulness

Materials to consider be covered

- 1. Shape memory alloy
- 2. Shape memory polymers
- The content MUST be in your OWN words. NO cut and paste of text please.
- 3. Self-healing materials
- 4. Thermochromic, photochromic and electrochromic materials

This work should take up no more room than **2 A4 sheets** of paper and can be created as a PowerPoint/Word/Publisher, however, <u>it does not need</u> to be word processed.

You will use it to revise from in during your mock exams and it is therefore in your best interests to investigate thoroughly and put in key facts only.

MAKE THE PAGES VIBRANT AND EYE CATCHING		
Final Deadline	First week back in Sept	
Deadline met	Yes	No