NEWSTEAD WOOD SCHOOL

"creating opportunities for success"

FORTITUDINE CRESCAMUS

A Level Design and Technology Bridging Unit – Sept 2023

The Design and Technology Bridging Unit is essential in the development of your knowledge of materials and their applications, which is part of Component 1 'Principles of. ..' content for the OCR course. For more details on this course, please have a look here or scan the QR code below.

Task: Investigate composite materials.

Choose a product made from a composite material from a high street specialist store.

Carry out a detailed product analysis on the product, a shop report on the retailer and a comparative shop survey with evaluations.

Use your findings to help produce a more effective, modified design of the product.

- Page 1 –Research into a composite material.
- Page 2 - Clear photo of product with detailed analysis.

Use a product analysis guidance sheet to help you – search for this online.

- Page 3 - Shop report on your chosen store (inc. website)
- Page 4 - Comparative shop survey with evaluations
- Page 5 – Recommendations and new product sketch

To be completed over the summer. Any questions, please email me: mfitzpatrick@newsteadwood.co.uk

UNDERSTANDING PRODUCT ANALYSIS

When you begin your coursework, one of the key activities you will need to carry out is investigation into existing products to understand what is already on the market before you design something.

How to investigate existing products

If you investigate existing solutions or products that do a similar job to the product you are designing, you will find out lots of useful information. The best way to understand a product is to take it apart and analyse each piece, recording your stages of disassembly (also known as reverse engineering).

However, you may find it difficult to get hold of products you are designing, or even to disassemble the product, so you should aim to have a mix of **Primary and Secondary** information/product solutions.

Primary means to have an object you can hold and investigate to get a sense of how it was made and what the designer was trying to achieve. We call this a kinaesthetic (hands-on) approach to analysis, and it gives you the opportunity to look at all aspects of the product and how it solves a problem, focusing on areas such as size, weight, texture, finish, temperature, ergonomics, all the key areas of the design and your emotional response to it. **Secondary** Analysis is when you collect images of products, usually from the internet or magazines or photographs. This is a visual analysis only, focusing on aesthetic qualities (what it looks like) such as colour, shape and other visual features on the product.

It is very difficult to get a sense of product from just a picture so it is important you have a real product in front of you to examine and you should try and analyse a minimum of 3 different products that are similar in some way.

A very effective way of presenting your work is to lay out photographs of all aspects of the product from different angles and annotate (label) using the ACCESS FM information to guide your investigations. You should investigate and analyse all details of the products you look at and consider the following areas:

ACCESS FM

Many designers use the acronym **ACCESS FM** to help them remember the key areas of initial product analysis and product evaluation. Try using all the points below in your investigations.

Aesthetics: How the product looks, its shape and form, colour, texture, pattern or decoration, finish (shiny, smooth, rough etc.)
Cost: What is the price range your product fits into?
Customer: Who is your product designed for? Who is the User or Market Group? Age? Gender? Their likes/dislikes? Styles? What are their needs?
Environment: Where will the product live or be used? What impact does this have on the design?
Size: What size should the design/product be? Is it too big/small?
Safety: What safety considerations are there for the product?
Function: What will or what does the product do? How does it work? Are there any special features? Can you compare it to other similar designs?
Materials: What materials have been used? Why?