

Y10-KO2-GCSE DESIGN AND TECHNOLOGY: INVESTIGATION, PRIMARY AND SECONDARY DATA

A RESEARCH		
1	When and why	<ul style="list-style-type: none"> Before, during and even after designing a product and making prototypes and products, information needs to be gathered. This information helps ensure that the design fully meets the client's needs.
2	How	<ul style="list-style-type: none"> Research comes in many forms such as: product analysis, case study, interviews, questionnaires, surveys, social media, email, materials testing and ergonomic and anthropometric data. The information needs to be collected efficiently and applied so that it has a positive impact on the design.

B CATEGORIES OF RESEARCH		
1	Primary research	<ul style="list-style-type: none"> This is completed by yourself and are specific to the design challenge. Sources included: interviews, questionnaires, product analysis, taking measurements and physical material testing. It is generally more reliable as it is done by the person using it and can be double-checked.
2	Secondary research	This is research others have gathered and presented. This includes: books, internet, and exemplar of work of others.

C MARKET RESEARCH	
	Key information
1	This helps to decide whether the product is a viable proposition and is likely to sell, be useful or fill in a gap in the market.

D ANTHROPOMETRICS		
1	Definition	The study of measurements of the human body. It looks at data related to distance, length, height, weight, angles of reach and vision and so on.
2	Uses	It may help designers decide on important dimensions for a product or prototype. The data may also indicate how much stress or load a component is likely to be placed under, thus helping a designer to decide which material or thickness of material to use.
3	Example	Knowing the grip width of palm if designing a new travel coffee cup.

E ERGONOMICS		
1	Definition	The study of human interactions with objects. It is based on scientific study. It attempts to measure not only physical but also emotional connections to the physical world. This includes touch or feel, aesthetics, sound, size, material, texture, light and even smell.
2	Uses	As a designer, making products appeal to a wide range of users is important and ergonomics can reveal clues as to what people like and dislike and why. It helps designers to produce relevant and appealing products.
3	Example	Making sure the travel cup is the correct size, and an insulating smooth material to make it comfortable to hold for long periods.

F THE WORK OF OTHERS			
	Designer / Brand	Design movement	Key information
1	William Morris	Arts and Crafts	British designer in 1880s. Simple natural crafts. Useful and beautiful products (wallpapers, cushions... etc.)
2	Charles Rennie Mackintosh	Art Nouveau	Scottish designer in 1860s – 1920s. Known for light and shadow. Created stained glass and furniture. Inspired by nature and geometric lines.
3	Ettore Sottsass	Memphis	Italian designer in the 1950s/60s. Enjoyed making everyday objects wacky and bold. Used lots of bold colours and black lines
4	Alessi		Nouveau Italian Design Company. Homeware and kitchen utensils "Post-modern" style. Philippe Starck is a major designer.
5	Apple		USA-based tech company. Famous for iconic designs of iPod and iPhone. Steve Jobs and Jonathan Ive are major designers. Known for innovative and modern design.
6	Dyson		British engineering company. Famous for vacuum cleaners and innovative technology. James Dyson is a major designer.