Subject: Technology	Year 9 Product Design	Topic: Torch

What is an 'Overview' and 'Brief?'

OVERVIEW includes;	DESIGN BRIEF includes;
• Background information	• What you are going to do
• Informs the reader of the target market (user)	• Gives specific details about design requirements and or target market
• Highlights existing product problems	• Might include bullet points/criteria to work to

What is 'Anthropometrics' and 'Ergonomics?'

Anthropometrics is the study of people and human size. Anthropometric data (measurements) makes use of the 5 to 95th percentile	**Ergonomics** is a study of the relationship between people and their environments. It applies anthropometric data. Can be the efficient layout of work spaces

Product Analysis – ACCESS FM

Aesthetics	Use adjectives to describe the look/style of the product (bright, dull, Functional, decorative, textured, smooth, shiny etc)
Client/ User	Who is it intended for? (age, gender, activity or profession) and why? ? Is it **inclusive** design?
Cost	What is the cost (estimate if necessary)? Is this reasonable & why?
Environment	product affect the environment? (CO_2, Global warming, pollution, renewable/non renewable sources of energy or materials, 6Rs & ethical sources etc.)
Safety	What has been done to avoid/minimise <u>risks</u> to <u>health</u> when using the product? Are there any restrictions (I.e. age) or standards that it meets? (BSI)
Size/Shape	size in mm, estimate dimensions if non given. What is the shape/form? H*as anything to make it ergonomic? (Overall shape, grooves, textured, etc)*
Function	What is the product <u>intended</u> to do? Are there any special <u>features</u> that make the product more or less successful?)? What is the main purpose of the product? How is it designed to fulfil the need of the user? Does it have any other features?)
Materials Methods of Manufacture	What material and standard components is the product made from and why (properties)? What process were used to manufactured it?

Key Words

1	Overview	Background info about the topic/product
2	Design Brief	A statement informing you of what you must do
3	Anthropometrics	The study of people and body part sizes
4	Ergonomics	The relationship between people and their environments
5	Inclusive Design	How a design meets the diverse needs of people (i.e. capability, needs and aspirations)
6	Specification	A list of measurable criteria the product must meet
7	Evaluation	Testing the final product to assess how successful it is
8	CAD	Computer Aided Design
9	CAM	Computer Aided Manufacture

Materials

1	Funky foam	Soft foam used to make button
2	Lithium Cell	Small, thin battery
3	Acrylic	Plastic used to cut torch parts on the laser cutter
4	Nylon Fastener	2 part clip used to assemble layers
5	LED	Light Emitting Diode used to provide light in the torch
6	Plywood	Manufactured board used to cut layers of torch body

Tools, Machines & resources

1	File	Flat or half round used to smooth edges of acrylic
2	Wet & dry paper	Can be used wet or dry to smooth the edges of acrylic. Comes in a range of grits – coarse to smooth
3	Sand paper	Used dry to smooth the edges of wood after filing/belt sanding. Comes in a range of grits – coarse to smooth
4	Belt sander	Machine used to sand wood
6	Laser Cutter	CAM machine used to accurately cut shapes from CAD drawings

Command Words

1	Apply	To use your knowledge to answer the question.
2	Justify	Give evidence so that you can show or prove to be right or reasonable.
3	Consider	Show and understanding of all elements before making a decision.
4	Review	A critical appraisal of something.
5	Compare and contrast	Give similarities and differences between several things, not just one.