AQA PRODUCT DESIGN REVISION- EXAM 25th MAY

The table below shows the different areas which could appear on your exam; use your **revision guide** (book) and web links below to further your understanding of the topics below. **Produce a mind map or revision card for each topic area.**

Tick?✓	Topic	Content	LINK/ RESOURCE	Parent Signature
	Properties of Materials		Pg 30 -31 http://www.technologystudent.com/joints/joindex.htm	
	Materials and Components	**Woods** Hard Woods, Softwood, Manmade woods- Names of	Pg 34-37 http://www.technologystudent.com/joints/joindex.htm	
		Metals Ferrous, Non Ferrous, Alloys- Types of Finishes Heat treatment Sheet, Rod, bar and tube	Pg 38- 39 http://www.technologystudent.com/joints/joindex.htm	
		Plastics Thermoplastics and Thermosetting plastics- names of Forming processes – Vacuum Forming, Injection moulding, line bending, compression moulding, extrusion Sheet, rod, powder, granules, foam	Pg 40- 41 http://www.technologystudent.com/joints/joindex.htm	
		Paper/Card Different types of, layout, cartridge, grid, corrugated, duplex board, white board Size, thickness, weight and colour Pulp- primary process in conversion to workable materials	Pg 32- 33 http://www.technologystudent.com/despro_flsh/cardpap1.html http://www.designandtech.com/graphics/	
	Manipulating and Combining materials	Finish of materials Aesthetic and function Pre-manufactured components	Pg 58-59 Pg 8 http://www.technologystudent.com/joints/joindex.htm	
	New Materials	Smart materials and properties Precious Metal Clays (PMC) Corn starch polymers (Packaging) Thermochromic inks Shape memory alloys Nanomaterials	Pg 60-61 http://www.technologystudent.com/joints/joindex.htm http://www.designandtech.com/graphics/	

	Design and Market Influences	Aesthetic understanding Line, Shape, form, proportion, colour Ergonomics	Pg 5 Pg 9 http://www.designandtech.com/graphics/	
	Evolution of Product Design	Ways in which products evolve over time Development of materials, manufacturing processes and technology Design Movements- Arts and Crafts, Art Nouveau, Art Deco, Bauhaus, Modernism, De Stijl, Memphis, Post modernism Continuous improvement- manufacturing industries 'Marketing Pull Technological Push'	Pg 2-3 http://www.designandtech.com/graphics/ http://www.designandtech.com/graphics/ http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/designsocialrev1.shtml	
	Design in Practice	Brief and Specifications Situation / design problem Types of research and data to support designing and manufacture of products Tolerances, quality control CAD/ CAM modelling Law- copyright, patents and registered designs	pg6-7 Pg 65 http://www.designandtech.com/resistantmaterials/ Pg 12-13	
	Packaging	Different types of packaging and materials used Environmental impact, sustainability and social issues. Function of – Inform, contain, transport, preserve and display Labelling, symbols, hazards, disposal, maintenance	Pg 24-25 http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/designsocialrev1.shtml http://www.designandtech.com/graphics/ http://www.technologystudent.com/designpro/drawdex.htm Pg 26-27	
	Product Marketing	Power of branding and advertising, effect on different consumer groups Promotion of products, leaflets, flyers, points of sale, packaging digital media,	Pg 28- 29 http://www.bizhelp24.com/marketing/what-is-branding.html	
	Design in Human Context	Inclusive design, access and cultural values Anthropometrics and ergonomics 5^{th}- 95^{th} percentile Use of colour for danger and warmth Social, Ethnic and economic groups ie disabled, elderly and ethnic groups	Pg 4-5 http://www.inclusivedesigntoolkit.com/ http://www.ergonomics4schools.com/index.htm http://www.designandtech.com/mypages/anthro/anthropometicdata.htm	

		Production lines/ assembly lines to speed up production	Pg 81	
	Safety	Moral and legal responsibilities for products made Safety tests- ie choke tests etc Risk assessment during design and manufacture	Pg 62-63 http://childsafetycentral.com/toy-choking-hazards.html	
	Quality	CE, BS EN ISO 9000, BSI Kitemark Testing of products	Pg 64-65 http://www.bsieducation.org/Education/downloads/leaflets/ISC_ISO9000SC.pdf	
	Ethical, Environmental and Sustainability issues	Fair Trade, product miles, carbon footprint, disposal, 6 R's. Reduce , reuse, recycle, repair, rethink and refuse Environmentally friendly products and ' Green design' Material identification, separation, collection, processing, energy costs and wastage,	P66-69 http://practicalaction.org/6rs http://www.slideshare.net/harrietcarpenter/year-10-introduction-to-the-6-rs	
	Consumer issues	Consumer groups/ pressure groups ie Which? Reports BSI & ISO- standards in product Design Legislation to protect consumers	Pg26 Pg 64http://www.bsigroup.co.uk/	
	Product Manufacture	Cutting different materials Shaping and forming QC (Quality control) and QA (Quality Assurance) Work schedules- ie flowcharts, & productions plans	Pg 70 -75 Pg 65 Pg 14-15,78	
	Methods of Manufacture	Scales of production- one off, batch, mass, continuous, Just in time (JIT) CAD/ CAM/ Manufacturing sytems	Pg 76-77 Pg 82-83 Pg 80-81	
	Use of ICT	How ICT facilitates manufacturing functions (JIT) Video Confrencing/ CNC Software sharing Stock control, data transfer and remote manufacturing	Pg 84- 85 Pg 79 Pg 79	

http://www.designandtech.com/ http://www.bbc.co.uk/schools/gcsebitesize/design/ http://www.technologystudent.com/ http://www.design-technology.info/