

Topic 5 Technology

Information and communication technology (ICT)

	Email between designers, manufacturers & consumers
	EPOS systems
	Internet marketing sales

Digital media & new technology

	Transfer of data using Bluetooth®
	Digital television broadcasting using HD
	Commercial digital printing
	Radio frequency ID tags

CAD / CAM technology

	2D drafting
	DTP and image manipulation
	3D virtual modelling & testing
	Laser cutting & engraving (rastering)
	Vinyl cutting

Topic 6 Sustainability

Minimising waste production

	Reduce materials & energy
	Reuse materials and products
	Recover energy from waste
	Recycle materials & products or use recycled materials

Renewable sources of energy

	Wind energy using turbines & wind farms
	Solar energy using solar cells and photovoltaic cells
	Biomass converted into biofuels for transportation

Climate change

	Reducing greenhouse gas emissions through the Kyoto protocol
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Topic 7 Ethical design manufacture

Moral, social & cultural issues

	Built in obsolescence in new products for a 'throwaway' culture
	Offshore manufacture of mass produced products in developing countries by multinational companies
	Tolerance of different cultures to avoid offence

GCSE GRAPHICS REVISION CHECKLIST

Nothing complicated here, just a simple checklist for all the things you need to know for your exam... Simple!



Topic 1 Materials & Components

Paper & Board

	Paper
	Cartridge paper
	Tracing paper
	Board
	Folding boxboard
	Corrugated board
	Solid white board
	Foil-lined board
	Packaging laminate
	Polythene, aluminium foil and paperboard. i.e Tetra Pak

Metals

	Ferrous—steel
	Non-ferrous—aluminium & tin

Polymers

	Acrylic
	PET
	PVC
	PP
	PS—High Density & expanded
	Styrofoam™

Glass

Woods

	Hardwood—jelutong & balsa
	Softwood—Pine

Composites

Carbon Fibre
MDF
marker pens

Modern & smart materials

polymorph
Thermochromic liquid crystals/film
Liquid crystal displays—LCD
Electronic paper displays (EPD's) e-paper
Transdermal prescription drug patches

Components

Spiral/comb binding
Saddle-wire stitching
Perfect binding
Hard bound or case bound
Pencils—hard (H) general purpose (HB) soft(B)
Set squares 45° & 30/60
compasses
Rulers
Drafting aids—circle/ellipse templates, flexicurves
Drawing boards

Topic 2 Industrial & Commercial

Scale of Production

One-off
Batch
mass

Modelling & Prototyping

Block modelling of MDF & Styrofoam
Rapid prototyping using SLA & 3DP

Forming Techniques

Blow moulding
Injection moulding
Vacuum forming
Line bending

Joining Techniques

Epoxy Resin
Polystyrene cement
Tensol® cement
PVA

Finishing techniques

Laminating
Varnishing
Hot-foil blocking

Printing processes

Photocopying
Offset lithography
Flexography
gravure
Screen printing

Health & Safety

Understand & describe safe working practices
Identify workshop hazards & precautions

Topic 3 Analysing products

Specification criteria

form
Function
User requirements
Performance requirements
Material & component requirements
Scale of production & cost
sustainability

Materials & components

Properties & qualities of materials & components
Advantages & disadvantages of M & C
Justification of the choice of M & C

Manufacturing processes

Stages of the manufacturing process
Advantages & disadvantages
Justification in the choice

Topic 4 Designing products

Specification criteria

form
Function
User requirements
Performance requirements
Material & component requirements
Scale of production & cost
sustainability

Materials & components

Properties & qualities of materials & components
Advantages & disadvantages of M & C
Justification of the choice of M & C

Manufacturing processes

Stages of the manufacturing process
Advantages & disadvantages
Justification in the choice

Designing skills

Clear communication
Annotation relating to original specification