

GCSE Graphics Theory List

- Paper sizes
- Thickness of paper and board
- Properties of paper, board and other graphic materials like Spiral wound tubes
- Print finishes (varnishing, laminating, embossing, encapsulation; and foil application)
- Printing Processes
- Die cutting
- Tessellation
- The four processing colours
- Properties of thermoplastics
- Properties of sheet and block modelling materials and their uses
- Smart / modern materials
- Adhesives
- Tools
- Components

- CAD/CAM and ICT
- Health and safety issues
- Scales of production
- Just in time production' (JIT)
- Quality
- Packaging for protection, need in transportation, storage, security, display, giving consumer information
- Copyright, patents and registered designs

- One point and two point perspective
- Annotated 2D and 3D freehand drawings
- Accurate isometric work (including crating)
- 3rd angle orthographic projection (British Standard Conventions (BS8888, 2006))
- Self assembly, sectional and exploded drawings
- Scale drawings
- Use grids
- 3 tone shading
- Texture of materials and surfaces

- 2D Design
- Adobe Photoshop
- Fonts & lettering
- Interpret room, site plans and maps (including schematic maps)
- Surface development (nets)
- Presentation drawings (final designs) & the use ICT to promote the final design to the client
- Produce pictograms and symbols
- Function and uses of corporate identity
- Labels and signage
- Designers

- Target marketing' and 'gap in the market' identification are used to promote a product
- Represent data in graphical form; i.e. 2D and 3D bar and pie charts, line graphs and pictographs
- Flowcharts with feedback loops
- Produce sequential illustrations
- Life-cycle (introduction, evolution, growth, maturity, decline and replacement)
- Needs and wants of customers
- Social, Cultural, Moral, Environmental, Economic and Sustainability Issues
- Cost, flexibility, finish, rigidity, strength, quality, weight, environmental and sustainable issues;

- Mechanisms
- Levers and linkages
- Pop-up mechanisms

- Models and prototypes
- Testing
- Evaluation techniques (including evaluating against the design specification)