

# Graphics Exam CONTENT

Exam Board web address:

- The information in this booklet has been taken straight from the WJEC exam board public website and has been designed for you to fill in and add notes. It gives you all the information you will need to know for your GCSE Exam in Graphic design at the end of year 11.
- Throughout KS4 you will add notes and meanings within this booklet, and then use it to revise. It has many keywords and Design and Technology terminology. The exam is worth 40% of the full GCSE so it is an important part of the qualification.
- Make sure that you write small and neatly, as you will need to be able to read it. Use a **pencil** when filling it in, just in case mistakes are made and it can then be rectified.
- Take a photograph of each page once they are complete and keep them on your phone, they can be used as a flash card!
- Where will be space to add the details of good relevant websites and youtube clips. So make sure you write them in.
- You will be expected to bring this booklet with you to every lesson. Failure to do so will result in detention.
  - Homework will be set on filling in the page and then learning the information. There will be a test on this.
  - If you do lose it you will need to refill in a new book during your time, so...

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Your Exam Date is the:

For you exam you will need:

**Pen, Pencil, Rubber, Ruler, Compass & Coloured pencils**

Tick once when you have revised.

**(1) DEVELOPING, PLANNING & COMMUNICATING IDEAS**

**(a) Write the meanings for the following stages of the “DESIGN PROCESS”**

- Problem: \_\_\_\_\_
  - Design brief: \_\_\_\_\_
  - Task analysis: \_\_\_\_\_
  - Specification: \_\_\_\_\_
- 
- Identify essential criteria for inclusion in a design specification.

- 
- 
- 
- Research: \_\_\_\_\_
  - List different research strategies to find information.
- 
- Initial Ideas: \_\_\_\_\_
  - Design development: \_\_\_\_\_
  - Final Design: \_\_\_\_\_
  - Make it/ realisation: \_\_\_\_\_
  - Testing: \_\_\_\_\_
  - Evaluation: \_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

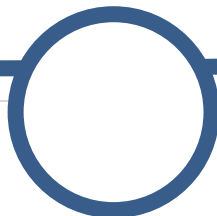
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Tick once when you have revised.

(b)

- Target Market: \_\_\_\_\_     
Give examples: \_\_\_\_\_
- Consumer: \_\_\_\_\_
- When designing what costs are there? \_\_\_\_\_
- What does sustainability mean: \_\_\_\_\_
- When designing, you must consider the list below... what do these terms mean?
  - (a) The moral considerations: \_\_\_\_\_
  - (b) Social: \_\_\_\_\_
  - (c) Environmental: \_\_\_\_\_
  - (d) Cultural influences: \_\_\_\_\_
  - (e) Safety legislation: \_\_\_\_\_

What do the following mean?

- New Technologies: \_\_\_\_\_     
\_\_\_\_\_
- Marketing: \_\_\_\_\_     
\_\_\_\_\_
- Advertising: \_\_\_\_\_     
\_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

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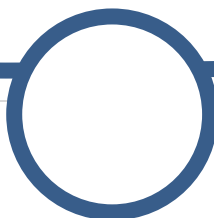
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# 4

Tick once when you have revised.

**(c) Generate, develop, model & communicate design proposals;**

- Use a variety of **graphic techniques** to communicate ideas clearly.

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

- Use appropriate modelling techniques to develop proposals.

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

**(d) Design for manufacturing in quantity;**

Consider how products are designed to facilitate manufacturing in quantity.

*Continuous Production:* \_\_\_\_\_

*Mass production:* \_\_\_\_\_

*Batch Production:* \_\_\_\_\_

*Prototype:* \_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

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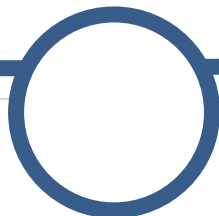
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**(e) Write in the meanings for the list of Keywords below:**

Product Analysis:

\_\_\_\_\_

Aesthetic means:

\_\_\_\_\_

Function &/or purpose of the product:

\_\_\_\_\_

Quality issues:

\_\_\_\_\_

Safety considerations:

\_\_\_\_\_

Scale (Size)

\_\_\_\_\_

: \_\_\_\_\_

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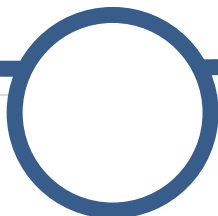
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6

**(3) SUSTAINABILITY & LEGISLATIVE ISSUES**

**Sustainability in D & T**

You need to understand that when designing you must consider sustainability & environmental issues. This might be asked in the exam....

All designers & manufacturers, work on the understanding that they need to minimise their environmental impact & also to show in their work how we can have a more sustainable future.

(a) Why are sustainability issues important when designing?

\_\_\_\_\_  
\_\_\_\_\_

(b) Why are environmental issues important when designing?

\_\_\_\_\_  
\_\_\_\_\_

(c) Why are social issues important when designing?

\_\_\_\_\_  
\_\_\_\_\_

(d) Why are , economic & environmental responsibility in designing & making products;

\_\_\_\_\_  
\_\_\_\_\_

Understand & use the SIX Rs of sustainability **TASK: Complete the meanings.**

- Rethink: \_\_\_\_\_
- Reuse: \_\_\_\_\_
- Recycle: \_\_\_\_\_
- Repair: \_\_\_\_\_
- Reduce: \_\_\_\_\_
- Refuse: \_\_\_\_\_

**REMEMBER: 'Life Cycle Analysis' shows the environmental impact of a product.**

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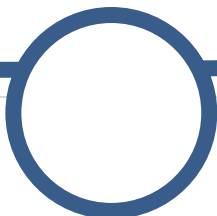
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7

**(4) Legislative Issues in D & T:** There are restrictions when designing, mainly due to safety.

(a) Know about the work of the **British Standards Institute (BSI)**     
What do they do?

\_\_\_\_\_  
\_\_\_\_\_

& how it is related to the **Committee for European Standardisation (CEN)**     
What do they do?

\_\_\_\_\_  
\_\_\_\_\_

& the **International Standards Organisation (ISO)**     
What do they do?

\_\_\_\_\_  
\_\_\_\_\_

(b) Remember these Safety marks:



BRITISH  
STANDARDS



EUROPEAN  
STANDARDS

(c) know the standards codes for the following:

Graphic Products: • PP8888-1:2007 (at present)     
Drawing Practice • PP 7321:204 (at present)

(d) know about the Packaging (Essential) Regulations (P(ER)R) 2003

WEBSITES: \_\_\_\_\_

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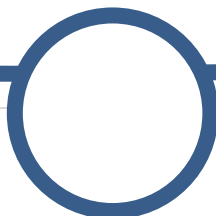
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8

(5) DESIGNERS:

There is a section in the Exam that will be on the following designers. It is worth 10 marks.

A \_\_\_\_\_

B \_\_\_\_\_

It is important to be able to recognise the work of these two designers; remember the following!

(a) What type of work has each of the Designers produced over time?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(b) How can you identify the work of each of the Designers?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c) What were the innovations &/or new ideas that the Designers have introduced?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(d) How did the two Designers influence the world of Design?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(e) Who and what were their influences?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WEBSITES: \_\_\_\_\_

YOUTUBE: \_\_\_\_\_

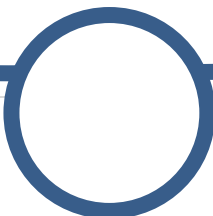
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Add some pictures of the two designers. Add labels and comments.

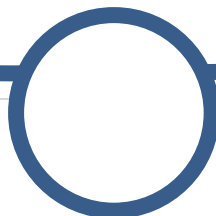
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# 10

## (6) COMMERCIAL MANUFACTURING PRACTICES

Do you know how Graphic Products are manufactured commercially & in bulk?

Write in the meanings to the following...BULK, PRE-PRESS, ON PRESS and FINISHING.

• **Bulk :** *the mass or size of something large. "They produced the books in bulk"*

• **Pre-Press:**

*Pre-press is the term used in the printing and publishing industries for the processes and procedures that occur between the creation of a print layout and the final printing.*

• **On Press:**

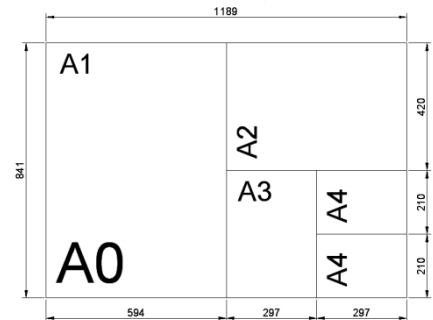
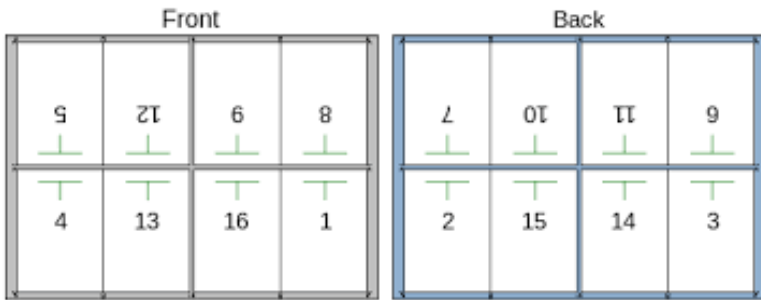
• **Finishing:**

• Know about **Pre Press** operations including:

• **Grids:** \_\_\_\_\_

• **Layout:** \_\_\_\_\_

• **Imposition:** is one of the fundamental steps in the prepress **printing** process. It consists in the arrangement of the **printed** product's pages on the **printer's** sheet, in order to obtain faster **printing**, simplify binding and reduce paper waste. \_\_\_\_\_



• What are the stock sizes for graphic materials?

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

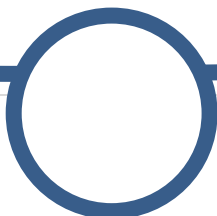
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# 11

## Printing Methods

- Below are the **On Press** methods used in printing:  
*The main printing techniques are **screen printing, block printing and photocopying.** **Letterpress, lithography, flexography, and gravure** printing are used in **commercial manufacturing.** (Finishing techniques enhance the final product.)*

	Description	Common Uses	Revised
<b>Commercial Printing</b>	<b>(Offset) Lithography</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Rotogravure</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Flexography</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Xerography</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Letterpress</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Photocopying</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Block Printing</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<b>Screen Printing</b>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

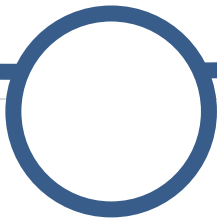
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# 12

## Finishing Processes

- Below are the finishing processes used by commercial printers.

Write in web address or youtube clip used.	Description	Common Uses	Revised
<b>Die cutting</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Spirit varnishing</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>UV varnishing</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Laminating</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Embossing</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Debossing</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Cropping</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Folding</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Binding Methods</b>			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

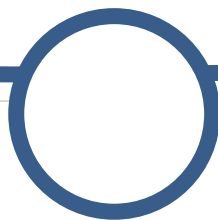
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13

• What is Colour separation: \_\_\_\_\_

• Quality control: what must you look out for when you check a graphics product? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

• List a range of components used in Graphic Products including digital items.

\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_

• List a variety of finishing materials for common graphic materials.

\_\_\_\_\_     
\_\_\_\_\_     
\_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

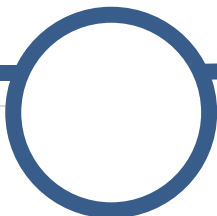
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14

(7) MATERIALS & COMPONENTS

Materials

- Select materials appropriate to the task.
- Understand the physical & working properties of a variety of common graphic media & other appropriate materials including:

Papers.  Cards & boards.  Digital media.  Paints.  Inks.  Plastics, woods & metals

- Composite materials appropriate for modelling., e.g. **foam core board**.  
\_\_\_\_\_
- New & modern materials e.g. **photochromic** & **thermo chromic materials**.  
\_\_\_\_\_
- Papers, cards & boards can be **laminated** to improve strength, finish & appearance.  
\_\_\_\_\_
- Understand that the properties of a material can be affected by its method of manufacture e.g. corrugated cardboard.  
\_\_\_\_\_
- Identify & select materials for a particular purpose.  
\_\_\_\_\_
- Choose materials on the basis of aesthetic, physical, economic, sustainability & performance factors.  
\_\_\_\_\_
- Select & use the best material for the construction techniques used for the manufacture & the function of the product.  
\_\_\_\_\_
- Consider & know about advances in material technology as they affect Graphic products including Micro & Nano technology,  
\_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

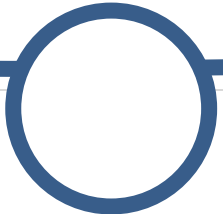
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Microencapsulation:

- Slow release patches.

\_\_\_\_\_

\_\_\_\_\_

- Scented Fragrance Inserts.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Tamper-indicating wrappers.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Factory packaging.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Pressure sensitive copying paper.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

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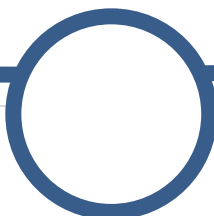
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# 16

## Paper & Card

Know how paper/card is mass manufactured including:

- How wood pulp is made.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- The differences between Mechanical & Chemical wood pulp.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- The Fourdrinier machine.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Recycled paper.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Know how paper is hand manufactured.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Know that paper & card can have different surface finishes.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Understand the uses & properties of a range of standard finishes.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Know how the grain in machine made paper affects its working properties.

**You Tube** \_\_\_\_\_

\_\_\_\_\_
- Know the **standard ISO sizes** of paper. \_\_\_\_\_
- Grammage that is **grams per square meter (gsm)** to measure weight of paper.
- Understand the use of **microns** to measure thickness of card.

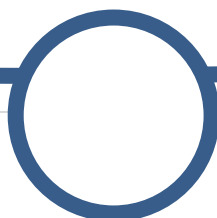
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17

**Paper & Card**

Know about the aesthetic & functional properties & the advantages & disadvantages of the following common paper, card & boards for commercial & everyday use:

	Description <i>(Aesthetics &amp; Physical Properties)</i>	Function <i>(Common Uses)</i>	GSM (Grams per square Metre)	Revised
<i>Layout paper</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Tracing paper</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Copier paper</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Recycled paper</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Cartridge paper</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Mounting board</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Foam core board</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Folding boxboard</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Corrugated board</i>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

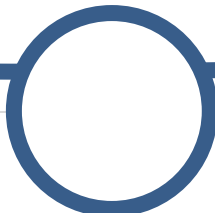
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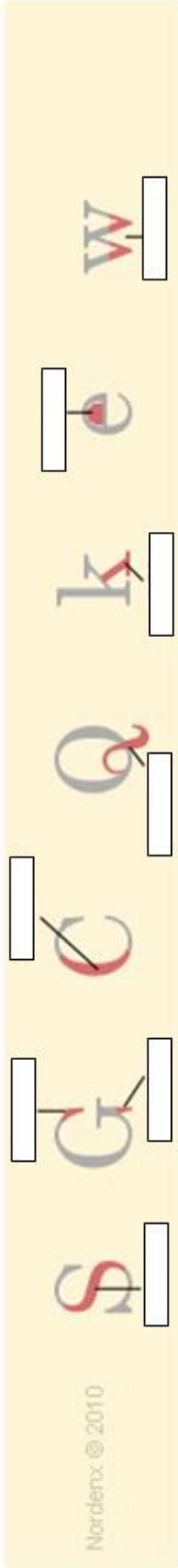
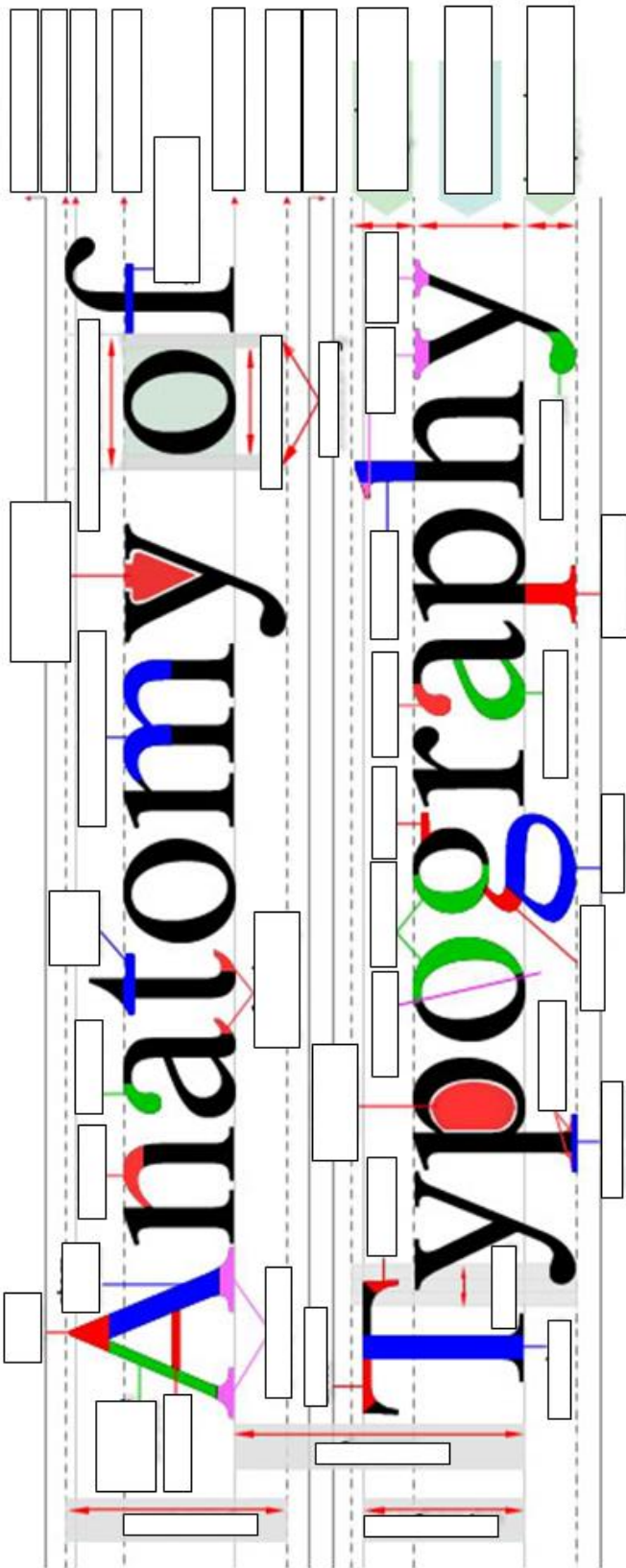
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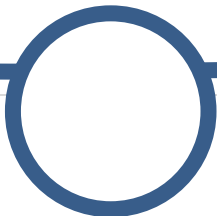
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**HOMEWORK**

WEBSITES:

YOUTUBE:



# 19

## (8) Typography

*The style and appearance of printed matter. Or, the art or procedure of arranging type or processing data and printing from it.*

What is the difference between:

**Readability** \_\_\_\_\_     
& **Legibility** \_\_\_\_\_

- Why are different fonts suitable for different purposes? \_\_\_\_\_
- Why do different fonts convey meaning in different ways? \_\_\_\_\_

Match up the font with the category

- Understand the categorisation of fonts (typefaces) into their six categories. Research each, print examples and stick them in.

- \_\_\_\_\_ Oldstyle.
- \_\_\_\_\_ Modern.
- \_\_\_\_\_ Slab serif.
- \_\_\_\_\_ Sans serif.
- \_\_\_\_\_ Script.
- \_\_\_\_\_ Decorative.
- \_\_\_\_\_

Be able to identify & know the properties of a range of common font families including:

- Arial. \_\_\_\_\_
- Avant-garde. \_\_\_\_\_
- Bodoni. \_\_\_\_\_
- Comic Sans. \_\_\_\_\_
- Courier. \_\_\_\_\_
- Poster Bodoni. \_\_\_\_\_
- Futura. \_\_\_\_\_
- Helvetica. \_\_\_\_\_
- Times New Roman. \_\_\_\_\_
- Verdana. \_\_\_\_\_

Research the above Fonts and replace the names with examples of the font.

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Know about & how to use:

- The sizes of typefaces in points.

- Cap height & "x" height. .

- Body type. .

- Bold typefaces. .

- Italic typefaces. .

- Extended typefaces. .

- Condensed typefaces. .

- Alignment. .

- Kerning. .

- Drop capitals. .

- Indents. .

- Upper case. .

- Lower case. .

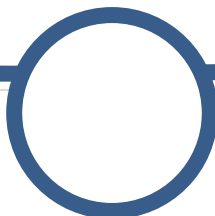
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# 21

## (9) Colour

- Colour gamut means:

\_\_\_\_\_

- Different colour gamuts for different purposes.

\_\_\_\_\_

- Give examples of Hot & Cold colours:

\_\_\_\_\_

- Understand & use the fact that hot colours process & cold colours regress.

\_\_\_\_\_

- Additive & subtractive colour mixing.

\_\_\_\_\_

Write the meanings of the following:

- Saturation:

\_\_\_\_\_

- Brightness.

\_\_\_\_\_

- Temperature.

\_\_\_\_\_

- Hue.

\_\_\_\_\_

- Tint.

\_\_\_\_\_

- Tone.

\_\_\_\_\_

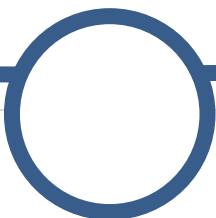
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Add  
Colour  
wheel  
here!

Understand the colour wheel with  
**Primary (PC), Secondary (SC) & Tertiary (TC) colours.**

PC=

SC=

TC=

Understand the use of the colour wheel to select colour palettes for specific purposes including:

- Analogous palettes.
- Monochromatic palettes.
- Triadic palettes.
- Complementary palettes.

- Know that CMYK & RGB are different colour systems
- Understand & use CMYK & RGB colour systems correctly
- Understand how to devise & use colour palettes for specific purposes
- Understand & use the cultural meanings of colour

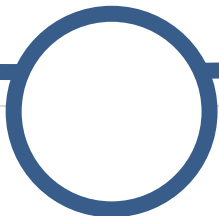
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**(10) DIGITAL RESOURCES**

- Know how to find & access digital resources

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- Know how to incorporate digital resources into designs.

\_\_\_\_\_

- Know how to use & modify digital resources including:

- Clip art.

\_\_\_\_\_

- Photo libraries.

\_\_\_\_\_

- Sound clips.

\_\_\_\_\_

- Video clips.

\_\_\_\_\_

- Nets.

\_\_\_\_\_

- Page layouts.

\_\_\_\_\_

- Colour palettes.

\_\_\_\_\_

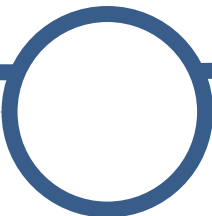
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**(11) TOOLS EQUIPMENT & MAKING**

This section is about candidates naming the ability to safely & correctly select appropriate tools, equipment & methods for manufacturing.

**Observe safety procedures in the working environment.**

- Use hand & machine processes safely.
- Appreciate & apply relevant aspects of the Health & Safety at Work Act.
- Know how to carry out appropriate risk assessments.
- Review procedures in terms of safety.

**Select & use the correct hand tools & equipment for a range of practical tasks.** \_\_\_

- Select tools & materials appropriate to the task.
- Safety issues involved with using common tools.
- Safety issues involved with common machine processes.

**Know how to set up & adjust equipment safely.** \_\_\_\_\_

- Safety issues involved with setting up a CN machine.

**Know how to skilfully use a range of tools:** \_\_\_\_\_

- Accurate Hand Drawing Tools to an accuracy of half a millimetre:
- CAD Software  
\_\_\_\_\_
- Desk-Top Publishing Software, Presentation Software, Web Site Creation Software, Image Manipulation Software, Vector Drawing Software. \_\_\_\_\_
- CAM Software to run & control CAM machinery. \_\_\_\_\_

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

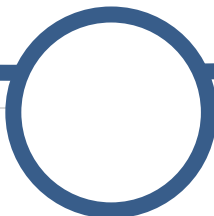
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**Making**

- Make Graphic Products using a range of both & machine making processes.
- Product products that have an accuracy of plus/minus 0.5mm.

Make graphic products having regard for the following:

- Planning a sensible, realistic procedure for manufacturing a product.
- Plan a logical order of processes for manufacture & estimate the time involved.

Gant chart

Step by step

Flow chart

- Anticipate problems & suggest solutions.
- Use testing & checking procedures to ensure accuracy of manufacture.
- Testing completed products against the original specification.

- Using manufacturing processes & finishing processes for a range of graphic media.
- Selecting a method of manufacture appropriate to the task.
- Working in ways that attempt to reflect what is done in industry.
- Avoiding extensive use of laborious or repetitious handwork in product manufacture.
- Having experience of using a CAM machine to manufacture parts of a product.
- Select the most appropriate way to expedite the work & justify the selection.
- Identify & use making methods that ease repetitious & time consuming hand processes.
- Use processes & techniques that can be used to save time on such tasks.

- What is a jig?  
\_\_\_\_\_  
\_\_\_\_\_

- Multiple cutting by hand or machine.  
Die cutting     
Craft Knife

**WEBSITES:** \_\_\_\_\_

**YOUTUBE:** \_\_\_\_\_

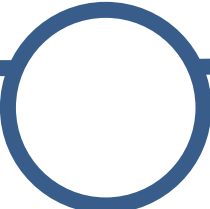
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What is a template?

\_\_\_\_\_

- What are the advantages of CAD( Computer aided Design) & CAM( Computer aided Design)?

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\_\_\_\_\_

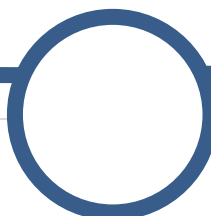
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(12) Use IMAGE MANIPULATION SOFTWARE – *Bitmap/Pixel or Painting* Software

Use Set Up tools. \_\_\_\_\_

- Select the most appropriate colour **mode** for outputting the work. \_\_\_\_\_
- Save files in an appropriate **format**. \_\_\_\_\_
- Use multiple **layers** when working on an image. \_\_\_\_\_

Use Image Adjustment tools. \_\_\_\_\_

- Adjust an image using **levels**.
- Adjust the **resolution & size** of an image.
- **Straighten** an image.
- **Crop** an image.
- **Select** a part of the image.
- **Invert** a selection.
- Use the **clone** tool to repair an image.

Use Painting tools. \_\_\_\_\_

- Create **custom** colours.
- Set up & use the basic painting tools.
- Use the **eraser** tool.
- Blur a selection using **Gaussian blur**.
- Sharpen an image using the **unsharp** Mask.
- Add **noise** to a selected gradient.
- Apply **text** to an image.
- Use **transparency**.

(13) Use VECTOR DRAWING SOFTWARE – Drawing packages **2D Design V2**

Use Set Up tools. \_\_\_\_\_

- Set up a workspace for drawing.
- Select the most appropriate colour mode for outputting the work.
- Save & export images files in an appropriate format.
- Use multiple layers when working on an image.

Use Drawing tools. \_\_\_\_\_

- Set up & use grids.
- Use the tools for drawing predetermined shapes.
- Use Bezier drawing tools.
- Adjust Bezier shapes using the editing tools.
- Use open & closed shapes.
- Set up & use the basic drawing tools.
- Create complex shapes by repetition & rotation.

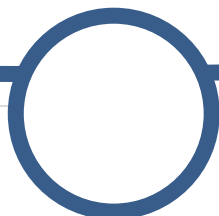
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Use Editing tools. \_\_\_\_\_

- Use the zoom tools.
- Select specified parts of an image
- Use the rotate tool.
- Use the reflect/mirror tool.
- Edit shapes with the Pathfinder/Tranform tools

Use Colour tools. \_\_\_\_\_

- Use the selected colour palette to fill shapes
- Use the selected palette to colour lines/ strokes.
- Create custom colours.
- Use gradient fills.
- Create gradient fills.
- Use transparency.

Use Text Tools. \_\_\_\_\_

- Select fonts & set sizes.
- Use artistic/point text.
- Use paragraph/area text.
- Apply text on a path.

**(14) Use PAGE LAYOUT SOFTWARE – Desk Top Publishing packages**

Use Set Up tools. \_\_\_\_\_

- Set up a single page document.
- Set up a multi page (up to 4 pages) document.
- Set up & arrange text frames.
- Set up & arrange image frames.
- Save a layout as a master page.
- Save & export files in an appropriate format.

Use Drawing &amp; Colour tools \_\_\_\_\_

- Use the drawing tools to make shapes.
- Create a specific colour swatch.
- Apply colour.
- Set up paper colour.
- Create a gradient & use the specified gradient.

Use Text. \_\_\_\_\_

- Import text from a word processor.
- Create & apply a Paragraph Style.
- Use tracking controls to fine tune the appearance of the text.

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Use Images \_\_\_\_\_

- Import images from a drawing or painting programme.
- Scale the image to fit the specified frame.
- Wrap text around a placed image

**(15) Use ONSCREEN PRESENTATION SOFTWARE (slide show, Prezi)**

Use Set Up tools. \_\_\_\_\_

- Set up a multi screen document (up to 4 screens).
- Set up & arrange text frames.
- Set up & arrange image frames.
- Save a layout as a master page.
- Save & export files in an appropriate format.
- Save as a self running presentation.

Use Drawing & Colour tools. \_\_\_\_\_

- Use the drawing tools to make shapes.
- Create a specific colour swatch.
- Apply colour.
- Set up background colour.
- Create a gradient & use the specified gradient.

Use Images & text. \_\_\_\_\_

- Import text from a word processor.
- Size & format text.
- Import images, at an appropriate resolution, from a drawing or painting programme.
- Scale the image to fit the specified frame.

**(16) ICT, CAD & CAM**

This section of the specification is about using **ICT, CAM & CAM** effectively in the designing & making processes involved in the subject. The specification gives Graphic Products candidates the opportunity to use computer systems with appropriate software & hardware to support their designing & manufacturing.

They need to be able to use ICT systems to assist research for problem solving. They need to be able to use ICT systems to process text & to analyse data & to be able to generate & manipulate digital images with understanding of the working properties of common digital graphic media.

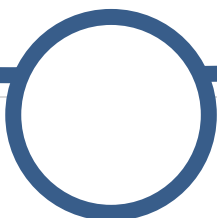
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**Use word processing software to create text.** \_\_\_\_\_

- Edit text using word processing software.
- Check spelling & grammar using word processing software.

**Use spread sheet software to collate numerical data.** \_\_\_\_\_

- Create graphs & charts using spread sheet software.
- Model simple 'what if' scenarios using spread sheet software.

**Access the internet & world wide web.** \_\_\_\_\_

- Use search engines to find information to aid the design process.
- Access remote design resources.
- Download information & resources for use.

**Use computer based multimedia design resources.** \_\_\_\_\_

- Transfer data to appropriate software for use.

**Understand how resolution is used to produce files/data appropriate for the end use.  
Understand how resolution affects printed output.**

**Set up & use digital capture devices.** \_\_\_\_\_

- Use a digital camera to capture still images.
- Set up a camera for optimal use.
- Set up a camera for macro use.
- Set up a camera to use flash.
- Set up a camera not to use flash.
- Set up a correct white balance for the prevailing lighting.
- Upload images to a computer for editing.
- Use a digital camera to capture video clips.
- Set up a camera for optimal use.
- Upload clips to a computer for editing.

**Output digital files as hard copy.** \_\_\_\_\_

- Set up a printer to output colour prints.
- Set up a printer to output black & white prints.
- Set up a printer for optimal output resolution.
- Set up a printer for the size & quality of the media being used.
- Set up a printer for *duplex printing*.

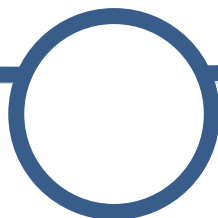
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**Use different file formats to save data & exchange data between software programmes.**

Save data in the native format of the software being used. \_\_\_\_\_

- Use .jpg to save & compress bitmap files.
- Use .tif to save, transfer & compress bitmap files.
- Use .gif to preserve transparency in an image & for animation.
- Use .wmf to save & transfer vector files.
- Use .eps to save & transfer vector files.
- Use .dxf to save & transfer vector CAD files.
- Use .pdf to make transferable documents using Vector & Bitmap & text elements.
- Use .rtf to save & transfer text files.
- Use .mpeg to save & compress video files.
- Use quicktime or similar to make transferable videos.
- Use .html for web sites.

**CAD. (Computer Aided Design)** \_\_\_\_\_

Know about:

- The advantages & disadvantages of the use of CAD.

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- The use of appropriate CAD software.
- The limitations of CAD for the paper production of graphic products.
- The limitations of CAD for use on screen in presentations & web sites.

**CAD Software** \_\_\_\_\_

- Using image editing software, vector graphics software, page layout software, presentation software, web site creation software.

**Image Editing Software** \_\_\_\_\_

- That these programmes do not produce pages they produce bitmap images.
- That the images are often not drawn from scratch although they can be.
- That the images produced often originated as photographs, downloads, or are scanned.
- That the images are then manipulated using the software.

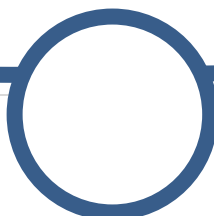
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**Vector Drawing**

- That these programmes do not produce pages they produce vector images.
- That the images are often drawn from scratch.
- That the images can start as clip art.
- That the images are constructed & manipulated using the software.

**Page Layout**

- That these programmes produce pages that can include text, bitmap & vector images.
- That the software allows for consistency in the layout from page to page.
- That the software allows for editing of text & images.
- That the pages are constructed & manipulated using the software.

**Onscreen Presentation Software**

- That these programmes produce screens that can include video, sound, text, bitmap & vector images & animation.
- That the software allows for consistency in the layout from screen to screen.
- That the screens are constructed & manipulated using the software.

**(17) SYSTEMS & PROCESSES**

The specification provided opportunities for candidates to gain an understanding of & practical experience of the methods that are employed when designing & making Graphic Products.

- Present an explanation of a system or process in a graphical way using flow charts, sequence diagrams, story boards, Gantt charts.
- Analyse systems (e.g. a mechanical device) & present the system in a graphical way using expressive arrows to show movements.
- Analyse functions & design signs & symbols for specific purposes, e.g. warning symbols, direction signs, symbols for a remote control, buttons & devices for on screen controls.
- Use graphical methods to analyse data & present it using:   
  - Line charts.
  - Bar charts.
  - Pie charts.
  - Pictorial charts.

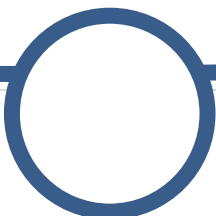
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- Interpret geographical data & produce simplified maps & route instructions.
- Use weighted lines for added clarity.
- Use Shadows & backgrounds for added impact in a sketch or presentation.
- Use rendering, both manual & digital to aid communication by improving the impact of a presentation, clarifying form, representing materials & finish
- Emboss & Deboss a design on paper & card.

- Score & fold paper & card into standard configurations:
  - Simple fold.
  - Short fold.
  - Accordion fold.
  - Barrel fold.
  - Parallel fold.
  - Gate fold.
  - Complex barrel fold.
- Produce duplex printed documents.
- Use imposition to produce multi-page booklets & leaflets (8 pages maximum).
- Use binding methods to produce booklets & leaflets.
- Use plane & solid geometry to enable accurate drawings & products to be made.

**Solid Geometry**

- Construction of nets of basic & cut geometrical solids.
- Construction of true lengths & true shapes.
- Construction of loci to determine the motion of moving parts in graphic products.
- Use orthographic & pictorial drawing systems with precision & accuracy.

**Plane Geometry**

- Construction of ellipses using concentric circles & the trammel.
- Construction of tangents & tangent curves & arcs.

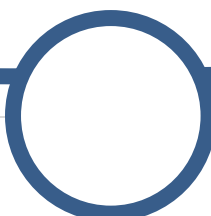
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**Orthographic Drawing**

- Make drawings to provide an accurate representation of a projected graphic product.
- Draw to the current British Standard.
- Drawings in third angle projection.
- Draw to both full size & to standard scales.
- Produce assembly drawings.
- General arrangement drawings.
- Detail drawings.
- Sectioned drawings.
- Fully dimensioned drawings.

Make orthographic drawings by:

- Sketching.
- Using grid paper.
- Drawing boards.
- Computer drawing software.

**Pictorial drawing**

- Make drawings to provide an accurate pictorial representation of a projected graphic product.
- Draw to both full size & to scale.
- Produce pictorial drawings by:
- Sketching.
- Using grid paper.
- Drawing boards.
- Computer drawing software.
- Draw isometric drawings (without isometric scale).
- Draw estimated one & two point perspective drawings.
- Draw exploded drawings.
- Draw cutaway drawings.

**Modelling**

- Make models & understand the purposes for modelling.
- Make & understand the purposes of:
  - Sketch models.
  - Block models.
  - Working models.
  - Prototype models.
- Manufacture models using appropriate materials.
- Use a variety of techniques for joining modelling materials.
- Use a variety of techniques to finish models.

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