1.9 Papers and Boards

Paper:
Is a thin, flat material made from natural fibres weighing less than 220 gsm. Paper consists of fine cellulose fibres usually wood but also hemp, flax, cotton or bamboo which are pressed together with water and then dried. Chemicals are added to the pulp to change the texture or surface finish.

Board:
Is a thicker version of paper or layers of paper that weigh more than 220 gsm.

Papers and Boards are measured in **grams per square metre (GSM)**.

- Paper usually weighs between 80-220 gsm and the thicker the paper the higher quality of the paper.
- Board usually weighs more than 220 gsm and is then measured by its thickness. The thickness is measured in **microns** which is 1/1000 of a millimetre.

Properties:

Flexibility: The amount a material bends when a force is applied (stiffness). Flexural stiffness is resistance to an external bending force. Handling stiffness is the ability to support its own weight.

Printability is the ability of a material to accept a printed image onto its surface. Surface properties such as smoothness or finish can affect this ability. Not to be confused with print quality which is determined by other factors such as the printer.

Biodegradability is the ability of a material to be broken down by bacteria or other biological means. Paper is made from wood pulp which makes it biodegradable especially if it is uncoated.

Copier Paper 80 gsm:	Thin, lightweight, cheap, bright white paper, with a smooth bleached uncoated surface.	Writing, printing and drawing	Takes print well, cheap, readily available in a range of colours
Cartridge paper 120-150 gsm:	Creamy, thick heavyweight paper	General drawing and printing can be used with watercolour paints	Accepts most drawing media and is opaque
Tracing paper 60-90 gsm:	Thin, smooth and translucent. Made by beating to remove air and processing to make a dense strong paper.	Art, making copies, envelope windows and overlays.	Strong and translucent
Folding boxboard:	Stiff layers consisting of a printable bleached top + bottom surface with unbleached yellowish centre layers.	Cereal boxes, food and health care packaging.	Excellent for scoring and bending without splitting. Inexpensive
Corrugated board:	2 or more layers of fluted paper between 2 paper liners. Strong and lightweight available in different thicknesses	Protective packaging	Impact resistant, inexpensive and recyclable
Solid white board:	Strong, rigid board made from pure unbleached wood pulp. With a good printing surface.	Book covers, food cosmetic packaging	Strong, rigid and accepts print well