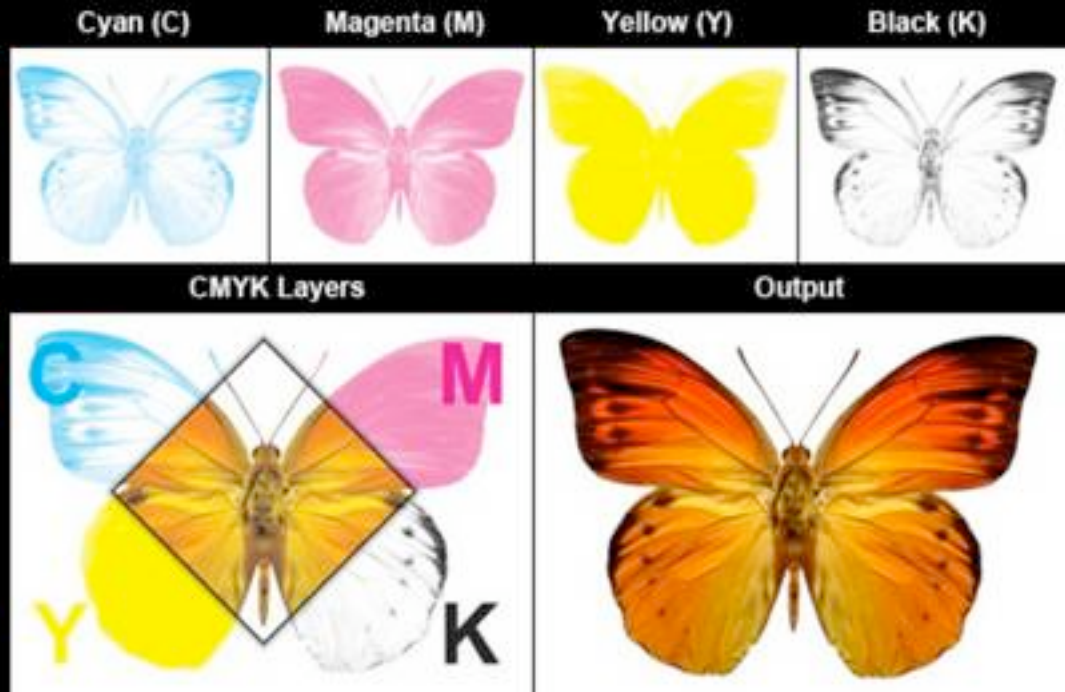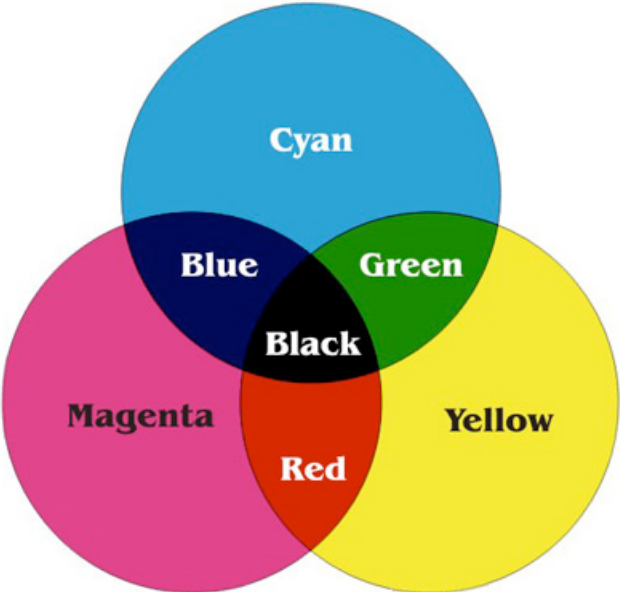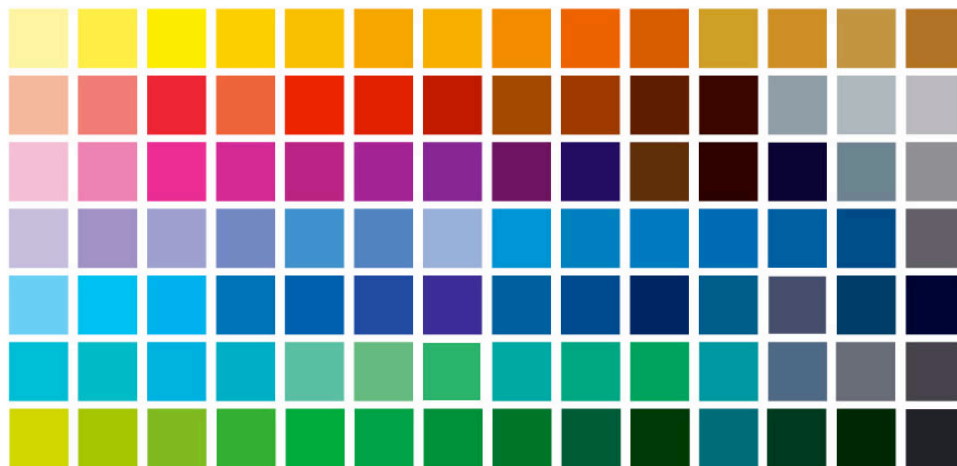# Color and paper

Printing press

- Prints one color at a time
- One color over another
- Full color: 4 color process

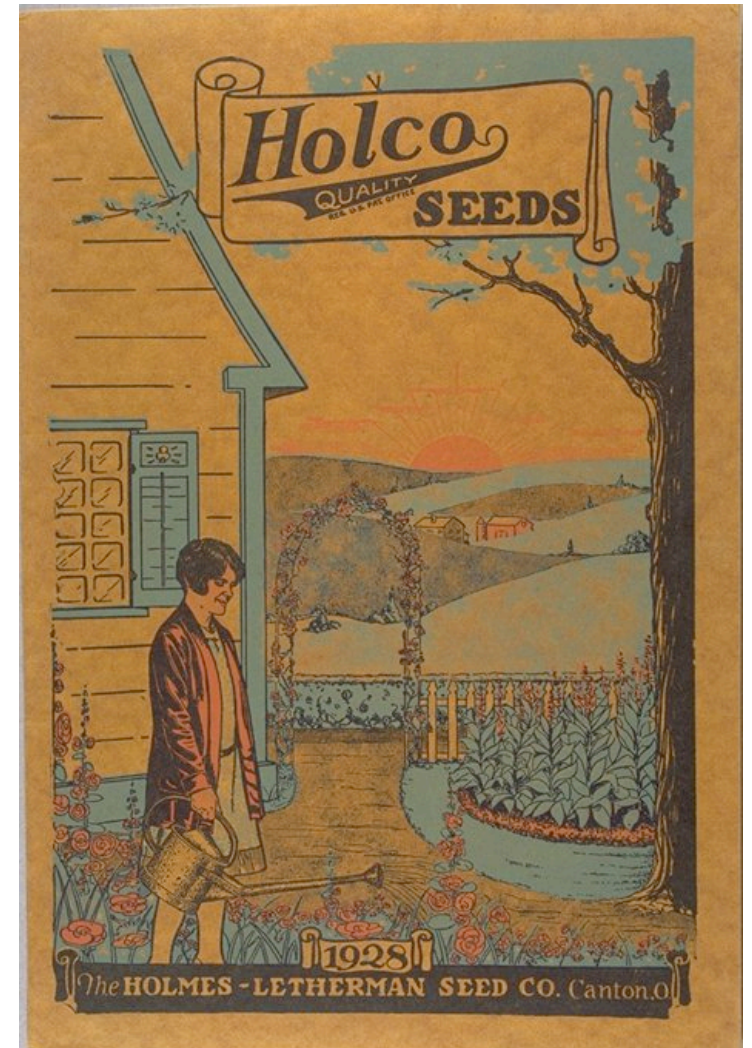# Flat/match/spot color

- An additional color used as a design element in a layout

- 2, 4, 6 colors

- PMS swatch book

- Mixed out of 9 basic colors

To get more colors without full color printing

- You can use transparency on one color element over another

Some principles to keep in mind

- Overlapping flat color slows drying…..>smudging

- Color will change shade when printed over other

Duotone

- superimposition of a contrasty black halftone over a one-color halftone which is shot with highlights and middle tones

Trapping

- Out of register - white thin line or bas relief effect
  - When printing plates do not align

- Allowance for misalignment of successive prints.

- The adjacent areas of flat color overlap to a small extent.

- Important where lettering reversed out and printed in another color

- Lighter color extended to darker

A   B
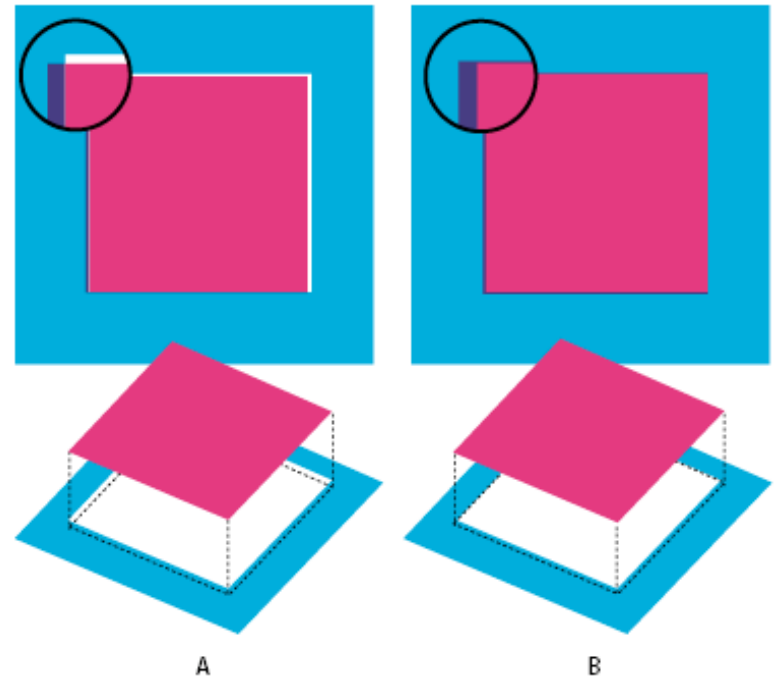
Types of Paper

- Paper selection is an important element in print projects.
- Before placing a printing order, it is a good idea to request a paper sample for each paper you are considering for the project.

Finish: The finish of a paper is it's surface texture. Uncoated and coated paper have different surface textures.

- Wove or Smooth
  - A smooth uncoated surface.

- Laid -
  - Textured lines on its surface.
  - This finish is used mostly for business stationery elements, like letterhead, envelopes and business cards.

- Linen
  - Similar to a laid finish
  - textured lines on the surface of
  - finer and more regular than those that appear on a laid finish stock.
  - This paper is also used frequently for business stationery.

- Laser -A paper that is guaranteed to be compatible with laser printers.

Coated x uncoated

- Coated - A paper with a waxy finish (shiny or matte).
- Uncoated - A paper with an untreated surface that is dull and unreflective.
- Coated One Side (C1S) - A cover stock that has a coating on one side and is dull on the reverse side.
- Coated Two Sides (C2S) - A cover stock that has a coating on both sides.

Weight:

- The weight of a paper refers to its thickness and is measured in pounds (#).

- The higher the number, the more (equivalent) weight a paper has (the thicker/heavier the paper).

Opacity:

- A paper's opacity is determined by its weight, ingredients and absorbency.

- A paper's opacity determines how much printing will show through on the reverse side of a sheet.

- Opacity is expressed in terms of it's percentage of reflection.

- Complete opacity is 100% and complete transparency is 0%.

Brightness:

- The brightness of a sheet of paper measures the percentage of a wavelength of blue light it reflects.

- The brightness of a piece of paper is typically expressed on a scale of 1 to 100 with 100 being the brightest.

- Most papers reflect 60-90% of light.

- The brightness of a paper affects readability, the perception of ink color and the contrast between light and dark hues.

Types of Paper

Offset:

- Also known as book or text paper, offset paper can have a coated or uncoated finish.

- Offset paper is thinner and lightweight.
- It is often used for publication interior sheets, brochures & flyers, and letterheads.
- Common offset weights: 50#, 60#, 70#, 80#, 100#.

- **Bond:** Bond or writing papers are most often used for letterhead. The most commonly recognized bond or writing stocks are:

  - 20# - A standard weight paper.

  - 24# - The preferred weight for most business papers (letterheads).

  - 28# - Heavier paper, less frequently used.
    - Its thickness can sometimes pose problems feeding through laser printers.
    - It is often used for outer envelopes.

Cover

- Cover stocks are heavy in weight, rigid and not easily folded.

- publication covers, business cards, greeting cards, folders, and postcards.

- They can have coated or uncoated finishes.

- Common weights for cover stocks include: 65#, 80#, 100#, 120#, and 12pt.

Tag:

- Tag paper is a dense grade of paper that is strong, durable, and water resistant.
- Tag paper is typically used for hanging tags such as store tags on clothing or other products.

Index:

- Index paper is a stiff, not too thick, inexpensive paper with a smooth finish.
- It is often used for index cards and folders.