



Knox Academy

Design Technology Department



Curriculum for Excellence

National 4 - 5

Graphic Communication

Graphic Design

Design Elements and Principles

The principles and elements of good design and page layout include proportion, balance, rhythm, emphasis, colour, lines, shapes, and textures. Additional components may be considered graphic design principles or ways to achieve a well designed page layout including alignment, white space,

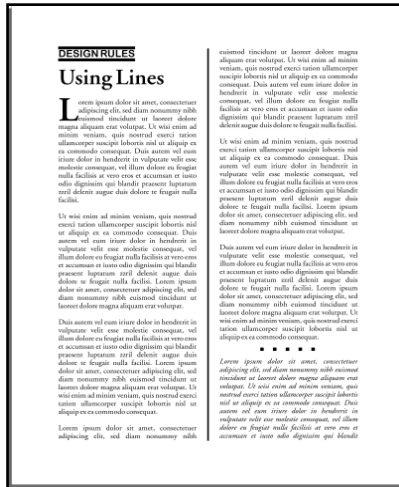
Design Principles - Balance, contrast, alignment, proportion, rhythm, proximity/unity, white space.

Design Elements - Lines, mass/weight, shapes, size, texture, value,

Using Lines

Some ways that you might use lines in your design are to:

- Organize, connect, separate
- Create movement
- Provide texture
- Convey a mood or emotion
- Define shapes
- Provide emphasis
- provide a framework

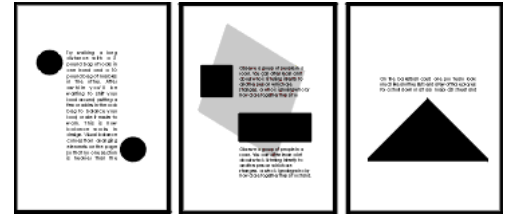


The examples opposite demonstrate a few of the ways lines might be used in page layout or illustration.



Shape

Shapes are at the root of graphic design. They are figures and forms that make up logos, illustrations and countless other elements in all types of designs.

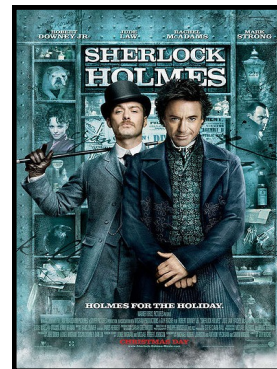


Using Shapes

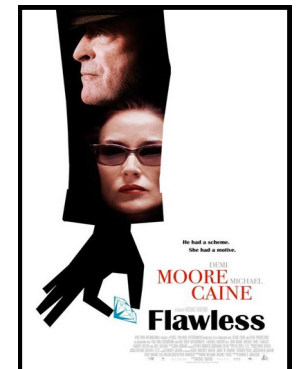
Using shapes properly is one of the keys to successful graphic design. The form, colour, size and other characteristics for the shapes in a layout can determine its mood and message.

Balance

Try walking a long distance with a 2 kilo bag of rocks in one hand and a 10 kilo bag of marbles in the other. After awhile you'll be wanting to shift your load around, putting a few marbles in the rock bag to balance your load, make it easier to walk. This is how balance works in design. Visual balance comes from arranging elements on the page so that no one section is heavier than the other. Or, a designer may intentionally throw elements out of balance to create tension or a certain mood.



Symmetrical Balance



Asymmetrical Balance

Alignment

Can you imagine how difficult it would be to find your car in a crowded parking lot if everyone ignored the parking lot stripes and parked in every which direction and angle? Imagine trying to get out of there! Alignment brings order to chaos, in both a parking lot and on a piece of paper. How you align type and graphics on a page and in relation to each other can make your layout easier or more difficult to read, foster familiarity, or bring excitement to a stale design.

Alignment is the placement of text and graphics so they line up on the page. It's one of the principles of design that help us create attractive, readable pages.

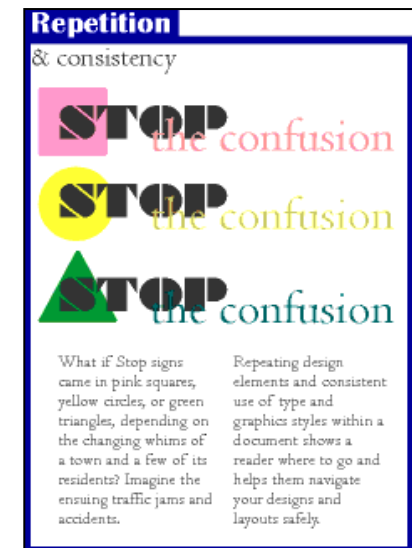
Use alignment to:

- create order
- organize page elements
- group items create visual connections



Repetition/Consistency

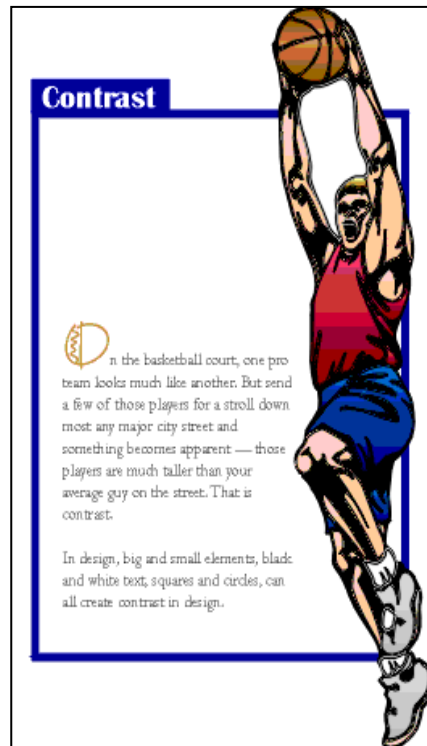
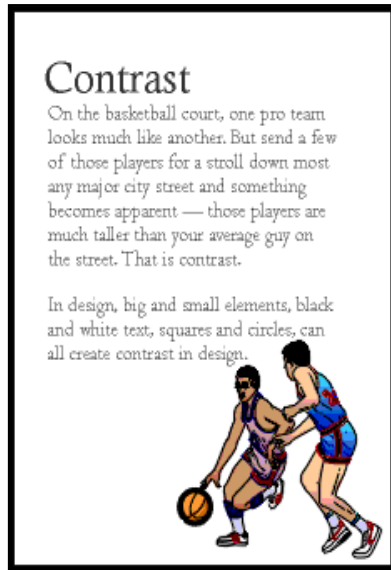
What if Stop signs came in pink squares, yellow circles, or green triangles, depending on the changing whims of a town and a few of its residents? Imagine the ensuing traffic jams and accidents. Repeating design elements and consistent use of type and graphics styles within a document shows a reader where to go and helps them navigate your designs and layouts safely.



Contrast

On the basketball court, one pro team looks much like another. But send a few of those players for a stroll down most any major city street and something becomes apparent those players are much taller than your average guy on the street. That's contrast. In design, big and small elements, black and white text, squares and circles, can all create contrast in design.

Contrast - Continued



That oversized graphic provides real **contrast** and reinforces the copy (tall basketball players). Dropping the text down to the bottom portion of the page also reinforces the 'towering' aspect of the graphic. The **reversed** text in the blue box, the blue border, and the drop cap carries through the overall unifying elements found throughout the series. Additionally, the round shape of the **drop cap** and its colour echo the shape and colour of the basketball in the graphic. The drop cap and the reversed text on the left side plus the left-aligned text help to **balance** the large graphic element.

Reversing the word "contrast" out of the blue box also adds more **contrast** to the composition.

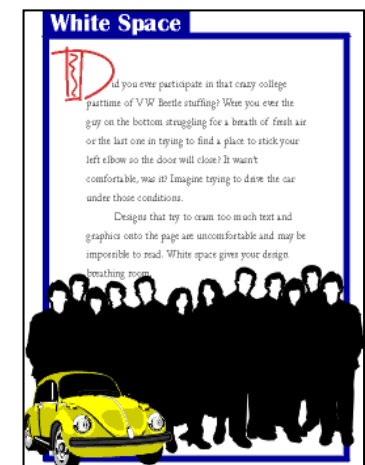
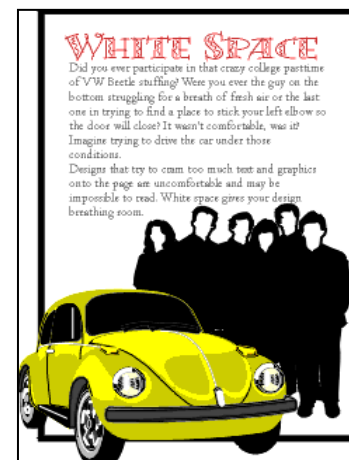
White Space

Look at the two pictures below. The left picture has more white space around the graphics than the right picture. Designs that try to cram too much text and graphics onto the page are uncomfortable and may be impossible to read. Put white space into your design to give it some breathing room and make it less cramped, confusing, or overwhelming.

White space doesn't have to be white. The large block of black created by the graphic of people adds a large block of black **white space**. Multiplying the number of people and reducing the size of the car in the second "White Space" example provides additional **contrast** and reinforces the theme of the copy.

Additional leading, larger margins, deeper paragraph indents all add white space or breathing room to the design. Even the use of the **Drop Cap** in the second example creates a little white space at the top of the page.

The oversized drop cap is another element of **contrast** and also helps to **balance** the page with the large, dark elements at the bottom of the page. The drop cap style, reversed title, and blue box are consistent with the rest of the series.



Typical magazine page layout



Typesetting

J u s t i f i c a t i o n

Justified

Justified is the most familiar method of type arrangement, especially for books, magazines, and newspapers. The lines of type are kept all the same length so that the lines are flush left and right. In order to make the lines equal, the word spacing is adjusted so that each line fills the entire measure.

Character in types has to do with the impression made by the individual forms, their proportions, and the intangible something in them that makes the letters of each word hang together to form.

Justified setting

Advantages

- This arrangement is best suited for sustained reading comfort.
- The pages assume a quiet look and do not distract the reader.
- It allows the reader to concentrate on the content rather than the design.

Disadvantages

- If the line measure is too narrow there could be a risk of poor word spacing.
- Words may be poorly hyphenated at the end of lines.

Type arrangement

There are five basic ways that lines of type can be arranged for a given piece of composition they are: Justified, Range Left, Centred, Range Right, and Asymmetrical.

Dependant on what type of work that is being carried out basically determines what justification will be used.

Character in types has to do with the impression made by the individual forms, their proportions, and the intangible something in them that makes the letters of each word hang together to form an agreeable whole.

Align centre setting

Character in types has to do with the impression made by the individual forms, their proportions, and the intangible something in them that makes the letters of each word hang together to form an agreeable whole.

Align left setting

Character in types has to do with the impression made by the individual forms, their proportions, and the intangible something in them that makes the letters of each word hang together to form an agreeable whole.

Align right setting

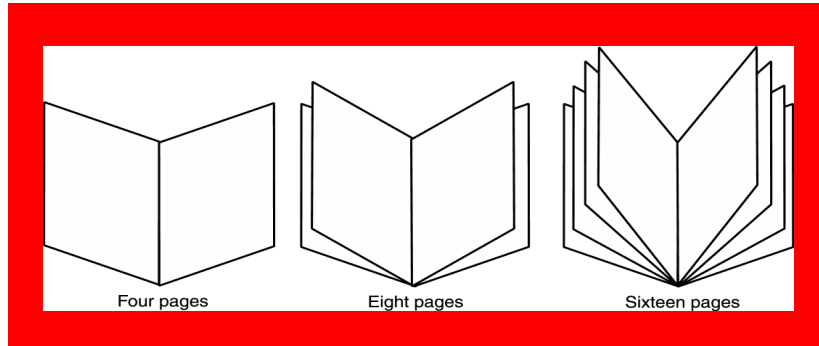
Character in types has to do with the impression made by the individual forms, their

Asymmetrical setting

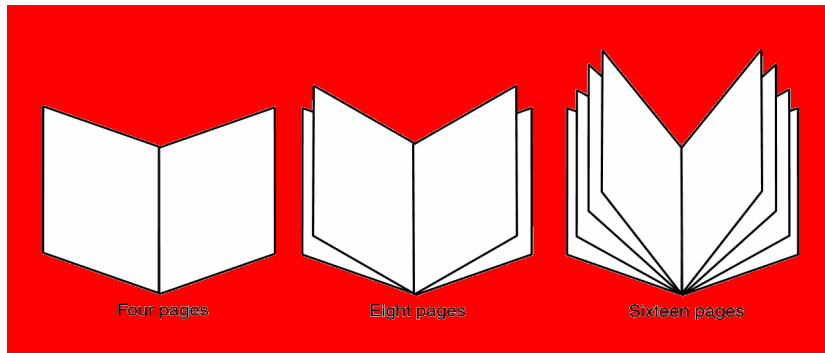
proportions, and the intangible something in them that makes the letters of each word hang together to form an agreeable whole.

The layout below has a white background which takes away from the main

Without Transparency tool applied



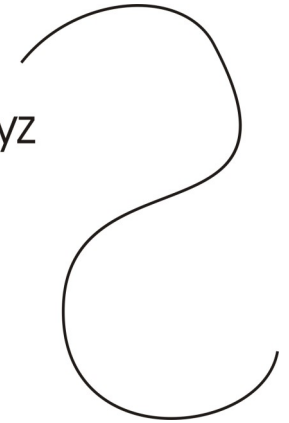
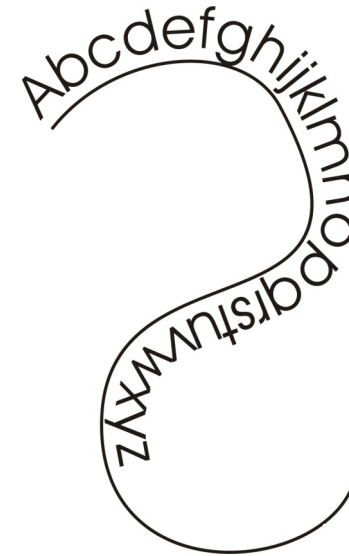
With Transparency tool applied



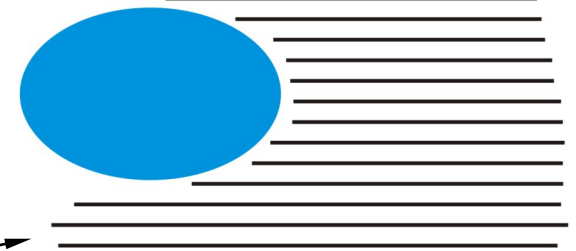
The above booklets shown are examples of multi page formats. Whereas the three and two fold leaflets covered earlier in this booklet are examples of a single page layout.

Flow Text along a path

Abcdefghijklmnopqrstuvwxyz



Text Wrap round an object

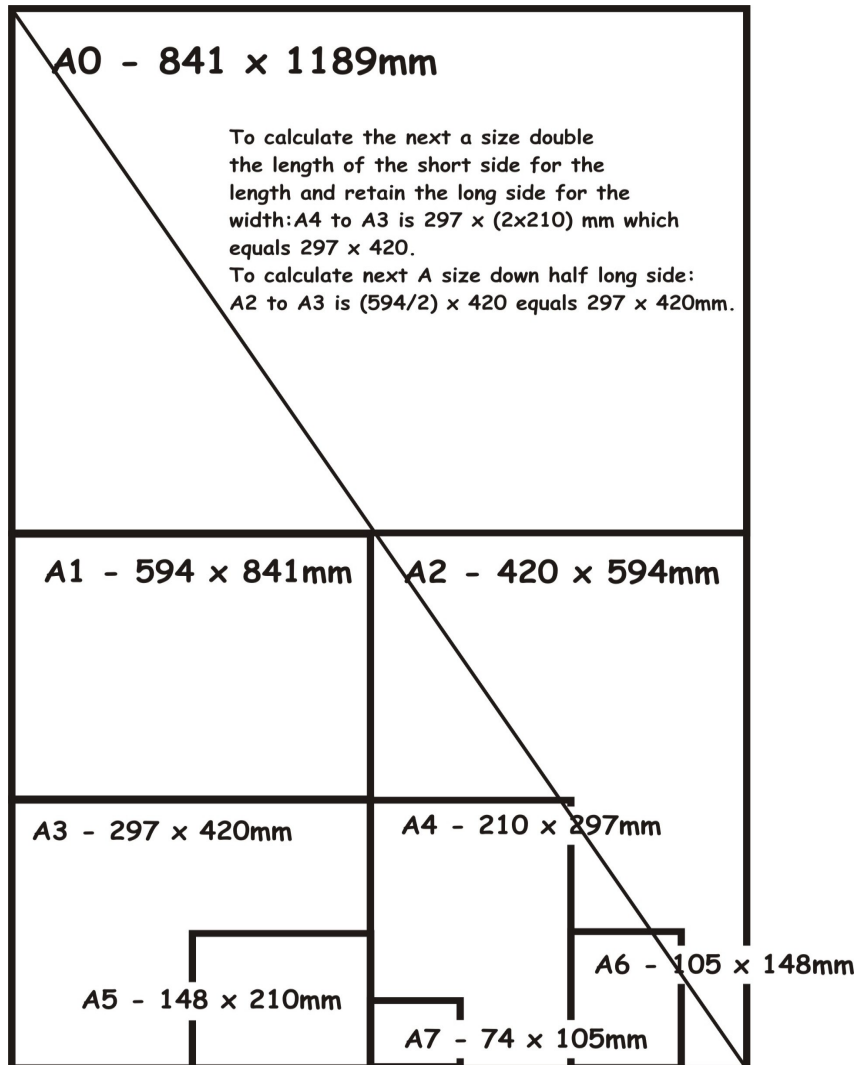


Drop Shadow



Paper sizes

These sizes represent the finished, trimmed size of a document. For the purposes of printing bleeds, registration marks and trimming have to be allowed for, so there are extensions of the above paper sizes known as RA and SRA which allow for these.



The 3 P's

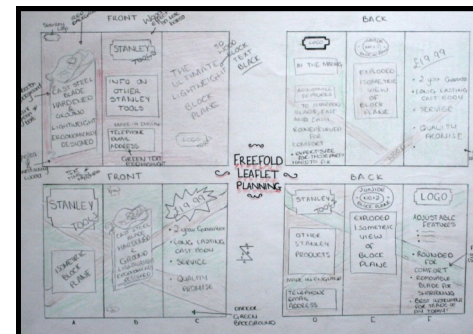
In any graphic design process you should always sketch/doodle down lots of ideas prior to deciding on the final design just as professional designer would, in the world of industry. This is process is tackled using a process called the **3 P's**.

The first of the **P's** is the **Preliminary Sketches** which is usually carried out using freehand. These sketches consist of various drawings including all planning towards production and promotional drawings.

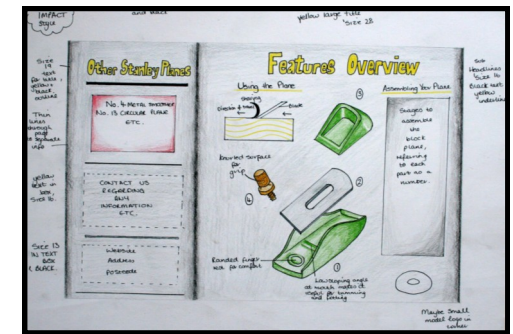
The second of the **P's** is the **Production Drawings** which consist of all drawings enabling the manufacture of the product being designed. The drawings will be in the form of CAD drawings (Inventor) including orthographic, sectioned, exploded isometric, etc.

The third of the **P's** is the **Promotional Graphics** and consists of all **CAG** drawings which promote all aspects of the product being designed. This will include posters, three fold leaflets, table talkers, etc.

Preliminary Graphics



Thumbnail Sketches

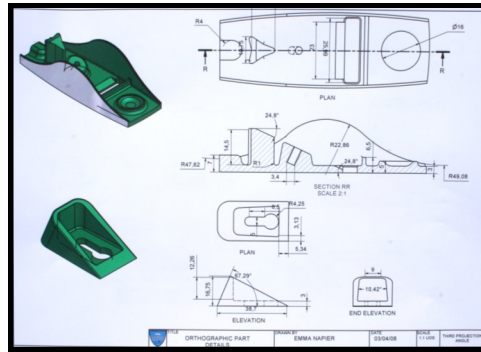
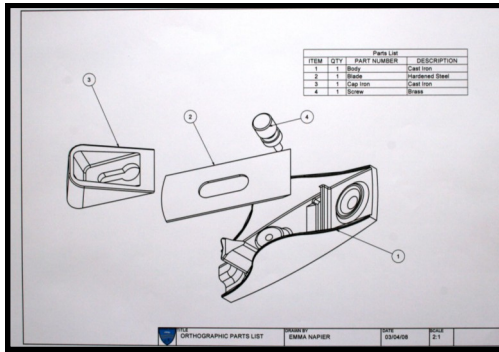


Working Rough

The example on the right above is simply a combination of sketched ideas prior to taking the idea forward to a final design. The sketch on the left side is a finalised drawing of the final design.

Production Drawings

The production drawings as stated overleaf show all manufacturing sizes to enable manufacture of the product being designed.



Promotional Graphics

The sole purpose of a promotional graphic is to try to advertise and tempt potential buyers to buy the product being sold.

This can be done in a number of ways including, three fold leaflets, table talkers, posters, etc.

Shown above and to the side are both sides of a three fold leaflet.

In the examples shown the background fill colour is not an ideal choice as it does not make the product being sold stand out.

