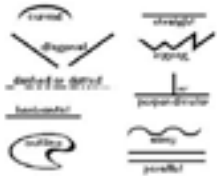


# Elements of Art:

*The visual components of color, form, line, shape, space, texture, and value. may be two-or three-dimensional, descriptive, implied, or abstract.*

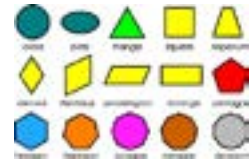
## Line:

Defined by a point moving in space. It may be two-or three-dimensional, descriptive, implied, or abstract.



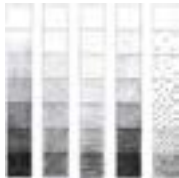
## Shape:

Two-dimensional, flat, or limited to height and width.



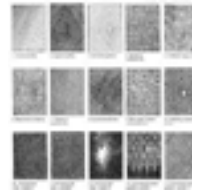
## Form:

ional and encloses volume; includes height, width AND depth (as in a cube, a sphere, a pyramid, or a  
It may also be free flowing.



## Texture:

Refers to the way things feel, or look as if they might feel if touched.



## Value:

tness or darkness of tones or colors. White is the lightest value; black is the darkest. The value halfway between  
extremes is called middle gray.

## Space:

Positive and negative areas are defined or a sense of depth achieved in a work of art.



## Perspective:

Represents a volume of space or a 3-dimensional object on a flat surface.



## Color:

An element of art made up of three properties: hue, value,  
and intensity.



## Principles of Design:

*Describes the ways that artists use the elements of art in a work of art.*

### Unity:

Achieved when the components of a work of art are perceived as harmonious, giving the work a sense of completion.

### Contrast:

A way of combining elements to stress the differences between those elements.

### Balance:

A way of combining elements to add a feeling of equilibrium or stability to a work of art. Major types are symmetrical and asymmetrical.

### Emphasis:

Refers to the created center of interest, the place in an artwork where your eye first lands.

### Rhythm:

Indicates movement, created by the careful placement of repeated elements in a work of art to cause a visual tempo or beat.

### Focal Point:

Areas of interest, emphasis or difference within a composition that capture and hold the viewer's attention.

### Variety:

Concerned with diversity or contrast and is achieved by using different shapes, sizes, and/or colors in a work of art.

### Proportion:

Refers to the relationship of certain elements to the whole and to each other.

### Repetition:

Reusing of the same or similar elements throughout your design. Repetition of certain design elements in a design will bring a clear sense of unity, consistency, and cohesiveness. It is the use of similar or connected pictorial elements.

### Pattern:

Refers to the repetition or reoccurrence of a design element, exact or varied, which establishes a visual beat.



## Color:

*An element of art made up of three properties: hue, value, and intensity.*

### 1. Hue: name of color

### 2. Value: hue's lightness and darkness (a color's value changes when white or black is added)

### 3. Intensity: quality of brightness and purity (high intensity= color is strong and bright; low intensity= color is faint and dull)

### Primary:

Any of a group of colors from which all other colors can be obtained by mixing. Red, Yellow, Blue

### Secondary:

A color resulting from the mixing of two primary colors. Orange, Green, Purple

### Tertiary:

Resulting color formed when an equal amount of a primary and a secondary color are mixed. Magenta, Vermillion, Amber, Chartreuse, Teal, Violet

### Monochromatic:

All the colors (tints, tones, and shades) of a single hue. Monochromatic color schemes are derived from a single base hue and extended using its shades, tones and tints.

### Tints:

Mixture of a color with white, which increases lightness.

### Shades:

Mixture of a color with black, which reduces lightness.

### Complementary:

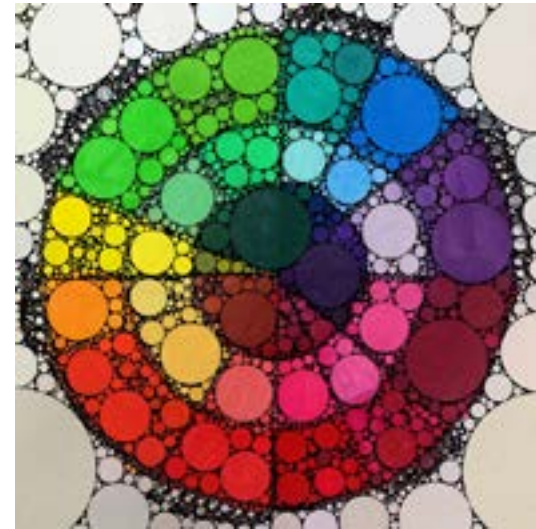
Colors directly opposite each other in the color spectrum, such as red and green or blue and orange, that when combined in the right proportions, produce white light.

### Split-Complementary:

Variation of the complementary color scheme. In addition to the base color, it uses the two colors adjacent to its complement. This color scheme has the same strong visual contrast as the complementary color scheme, but has less tension.

### Analogous:

Groups of three colors that are next to each other on the color wheel, with one being the dominant color, which tends to be a primary or secondary color, and a tertiary color.



## Typography:

*The style and appearance of printed matter.*

### Font Families:

Also known as a typeface is a set of one or more fonts each composed of glyphs that share common design features. Each font of a typeface has a specific weight, style, condensation, width, slant, italicization, ornamentation, and designer or foundry (and formerly size, in metal fonts).

### Serif:

A slight projection finishing off a stroke of a letter in certain typefaces.

### San-Serif:

A category of typefaces that do not use serifs.

### Scripts:

Script typefaces are based upon the varied and often fluid stroke created by handwriting. They are generally used for display or trade printing, rather than for extended body text in the Latin alphabet.

### Decorative:

Fonts with extreme features such as swashes or exaggerated serifs, and any fonts designed to be used at larger than body copy sizes.

### Anatomy of Typography

#### x-height:

The height of a lower-case x, considered characteristic of a given typeface or script.

#### Baseline:

The imaginary line upon which a line of text rests.

#### Ascenders:

The portion of a minuscule letter in a Latin-derived alphabet that extends above the mean line of a font. The part of a lower-case letter that is taller than the font's x-height. Ascenders, together with descenders, increase the recognizability of words.

#### Descenders:

Portion of a letter that extends below the baseline of a font. The line that descenders reach down to is known as the beard line.

#### Serif:

A small line attached to the end of a stroke in a letter or symbol.

#### Leading:

Refers to the distance between the baselines of successive lines of type.

#### Kerning:

Process of adjusting the spacing between characters in a proportional font, usually to achieve a visually pleasing result.

#### Tracking:

Refers to a consistent degree of increase (or sometimes decrease) of space between letters to affect density in a line or block of text. Letter-spacing should not be confused with kerning.

#### Meanline:

Also called the midline, it is half the distance from the baseline to the cap height. This may or may not be the x-height, depending on the design of the lower case letters. A very high or very low x-height may mean that the midline is above or below the x-height.



## PDF:

*(Portable Document Format) A file format that provides an electronic image of text and graphics that looks like a printed document and can be viewed, printed, and electronically transmitted.*

-When you save a document as a PDF, it looks exactly as you intended it to. Some are simply pictures of pages and some preserve all the data in the original file.

-You can password protect your PDFs to prevent others from copying and editing, redact them to permanently delete sensitive information and even find and remove hidden data.

-You can electronically sign a PDF.

-You can scan paper documents and forms and get smart files that are easy to search, share, and store.

### Types of PDFs:

#### PDF:

General standard

#### PDF/A:

Developed for long-term file storage

#### PDF/E:

Intended to address key issues in large-format drawings, multimedia, etc.

#### PDF/Healthcare:

Provides best practice and guidelines for healthcare

#### PDF/X:

Best suits print professionals, graphic designers, etc.

#### PDF/UA:

Enhances the readability for people with disabilities

#### PDF/VT:

Print professionals also use this one for documents

#### PadES:

Standerdizes secure paperless transactions that conform to the European legislation

## Raster Images

- A raster image is made of pixels, each a different color, which are arranged to form an image.
- Raster images do not retain their appearance as the size increases.
- This is the reason for photographs to become pixelated, or blurry, when they are blown up.
- Raster images can display a ton of images in a single image and allow color editing.
- Raster images can not be made larger without affecting the quality of the image and vector images cannot display the natural qualities of a photograph.
- Raster images are quite large.
- Raster images are used in web and print.
- Raster images are mainly used with photos, which is why Photoshop is a raster-editing program.

### Raster file extensions include:

**PSD** (Adobe PhotoShop Document)

**JPEG** (Joint Photographic Experts Group)

**GIF** (Graphics Interchange Format)

**PNG** (Portable Network Graphics)

**BPG** (Better Portable Graphics)

~INDD is the extension for Adobe InDesign files. They include page format and content, linked files, styles and swatches, and are used to create and format ebooks, magazines, newspapers, flyers and brochures. InDesign documents can be opened with Adobe InCopy, or imported into QuarkXpress.

## Vector Images

- A vector image is made up of paths, each with a mathematical formula, a vector, that tells the path how it is shaped and what color it is bordered with or filled by.
- Since a vector image has mathematical formulas that dictate how the image is depicted, they do retain their appearance.
- Vector images are scalable, so the same image can be made once then have its size change to any size you want.
- Vector images cannot display the natural qualities of a photograph.
- Vector images tend to be more lightweight.
- Before vector images can be used in web or print, they must be converted to a raster image first.
- Adobe Illustrator is a vector drawing program that automatically creates your vector formulas as you draw.

### Vector file extensions include:

**CGM** (Computer Graphics Metafile)

**SVG** (Scalable Vector Graphics)

**AI** (Adobe Illustrator Artwork)

**VML** (Vector Markup Language)

**XPS** (XML Paper Specification)

**PPT** (Microsoft PowerPoint)

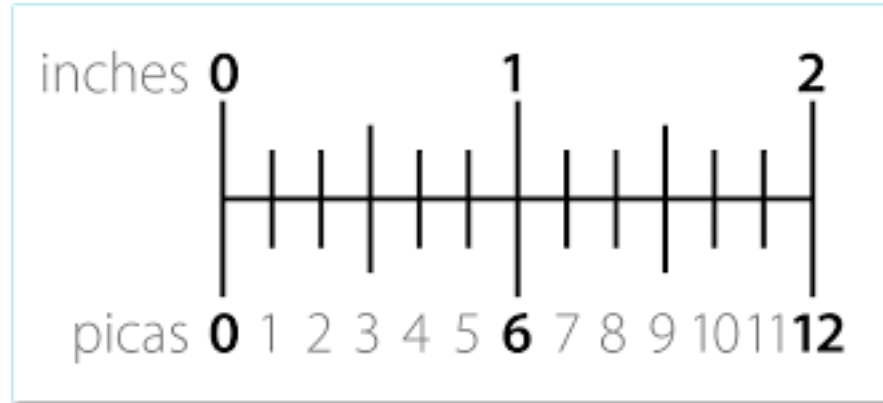
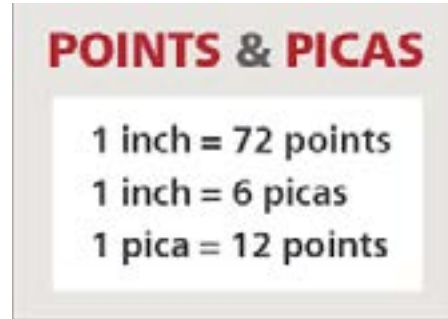
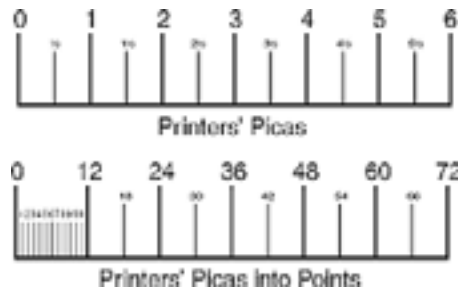
~TIF is an image format file for high-quality graphics. TIF files are also called .TIFF, which stands for “Tagged Image Format File.” TIF files were created in the 1986 as a file format for scanned images in an attempt to get all companies to use one standard file format instead of multiple.

Inches  
Picas  
Points

1 inch=6 picas=72 points

in x 72 = pt  
in x 6 = P  
pt / 12 = P  
pt / 72 = in  
P x 12 = pt  
P / 6 = in

## Measurements



## Types of Printing

### What is printing?

Printing is the production of books, newspapers, and other printed materials.

### Screen Printing:

Screen printing is when you force ink or metal onto a surface through a prepared screen of fine material so as to create a picture or pattern. Screen printing consists of three elements: the screen, which carries the image, the squeegee, and ink. The process uses mesh stretched tightly over a wooden or metal frame.

### Offset:

Offset printing is a printing technique where the inked image is transferred (or “offset”) from a plate to a rubber blanket, and then to the printing surface. Offset printing is a lithographic process. Lithography is a process based on the repulsion of oil and water.

### Letter Press:

Letterpress printing is a technique of relief printing using a printing press, a process by which many copies are produced by repeated direct impression of an inked, raised surface against sheets or a roll of paper. Products usually made using the letterpress printing process include business cards, letterheads, forms, posters, announcements, inprinting, embossing, and hot-leaf stamping.

### Gravure:

In gravure printing, the image is applied to a printing substrate by use of a metal plate mounted on a cylinder. It uses a depressed or sunken surface for the desired image. The image to be reproduced is etched into the metal plate, sometimes using a laser. The metal plate is bathed in ink then wiped clean before application.

### Rotogravure:

Rotogravure is a printing system using a rotary press with intaglio cylinders, typically running at high speed and used for long print runs of magazines and stamps.



## *Types of Printing (continued)*

### **Flexography:**

Flexographic printing (flexo) is a reliable printing technique similar to letterpress that employs rubber or soft plastic plates, a simple inking system, and fast-drying inks. Flexo printing allows the inked surface to conform to many kinds of substrates, such as butcher paper, natural kraft, newsprint, chip and linerboard, and coated boards. It's the most flexible, or diverse, type of printing process.

### **Thermography:**

Thermographic printing is an application of thermography in which heat is used to create images on paper. There are two types of this printing. In thermal printing, paper is coated with a heat sensitive substance. In thermal ink transfer printing, heat is used to transfer print from a ribbon to paper.

### **(Digital) Laser Printing:**

In laser printing, a printer, linked to a computer, produces good-quality printed material by using a laser to form a pattern of electrostatically charged dots on a light-sensitive drum, which attract toner (or dry ink powder). The toner is transferred to a piece of paper and fixed by a heating process.

### **(Digital) Inkjet:**

In inkjet printing, a printer in which characters are formed by minute jets of ink, prints. Hard copies are produced by spraying ink onto paper. Some inkjet printers can make full color hard copies at 600 dots per minute or more. A typical inkjet printer can produce a copy with a resolution of at least 300 dpi.

### **Letterset:**

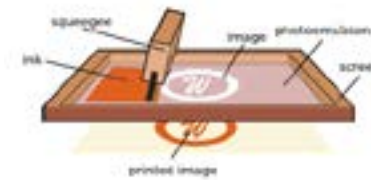
In letterset printing, the image is transferred from a relief type plate to a roller. It can also be defined as a process of printing that transfers the image from a letterpress-type relief plate to a roller or blanket from which it is offset.

### **Engraving:**

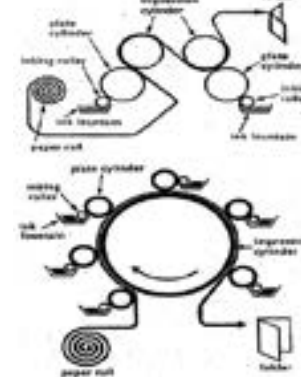
Engraving printing is the act of forming designs by cutting, corrosion by acids, a photographic process, etc., on the surface of a metal plate, block of wood, or the like, for or as for the purpose of taking off impressions or prints of the design so formed. An engraving in printing means to carve a pattern in a printing plate.

### **Lithography:**

Lithography is the process of printing from a flat surface treated so as to repel the ink, except where it is required for printing. It is a method of printing originally based on the immiscibility of oil and water. The printing is from a stone (lithographic limestone) or a metal plate with a smooth surface.



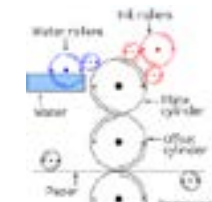
Screen Printing



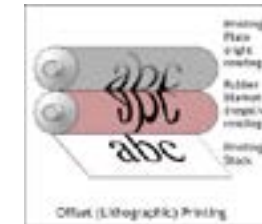
Letter Press



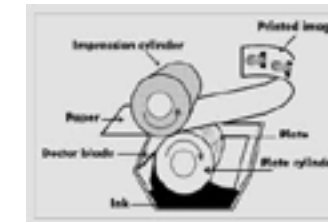
Gravure



Offset



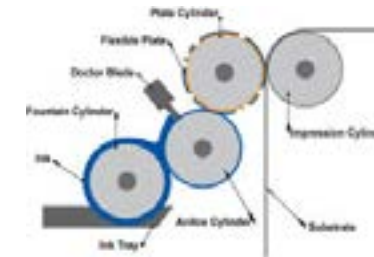
Lithographic



Rotogravure



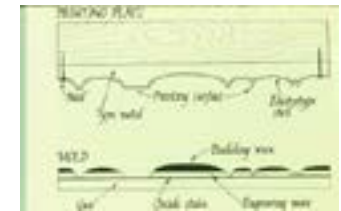
(Digital) Laser



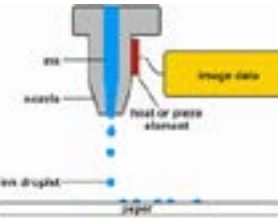
Flexography



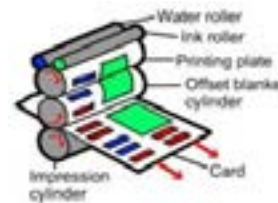
Thermography



Engraving



(Digital) Inkjet



Letterset