Year 10 Graphic Communication Summer Term Art Knowledge Bank

AO2 Media, Techniques and Processes

Adobe Photoshop

Can:

- Draw and Paint
- Retouch images
- Colour correct
- Crop and resize
- Photo montages

Types of computer graphics:
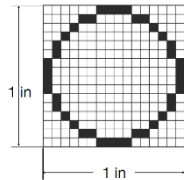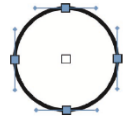
- **Bitmap**
- **Vector**

Bitmap graphics are made of **Pixels**.

Pixels are tiny square elements that contain Colour.

A grid of pixels is called a **Raster**. When you **Rasterise** an image, you are converting it to **Pixels**.

Vector shapes are defined by maths. They Are scaled up without loss of quality.

Bitmap   Vector

Photoshop works in Bitmaps.

The number of pixels in an image is what Photoshop refers to as the Pixel dimensions.

Width x Height = Pixel dimensions (px)

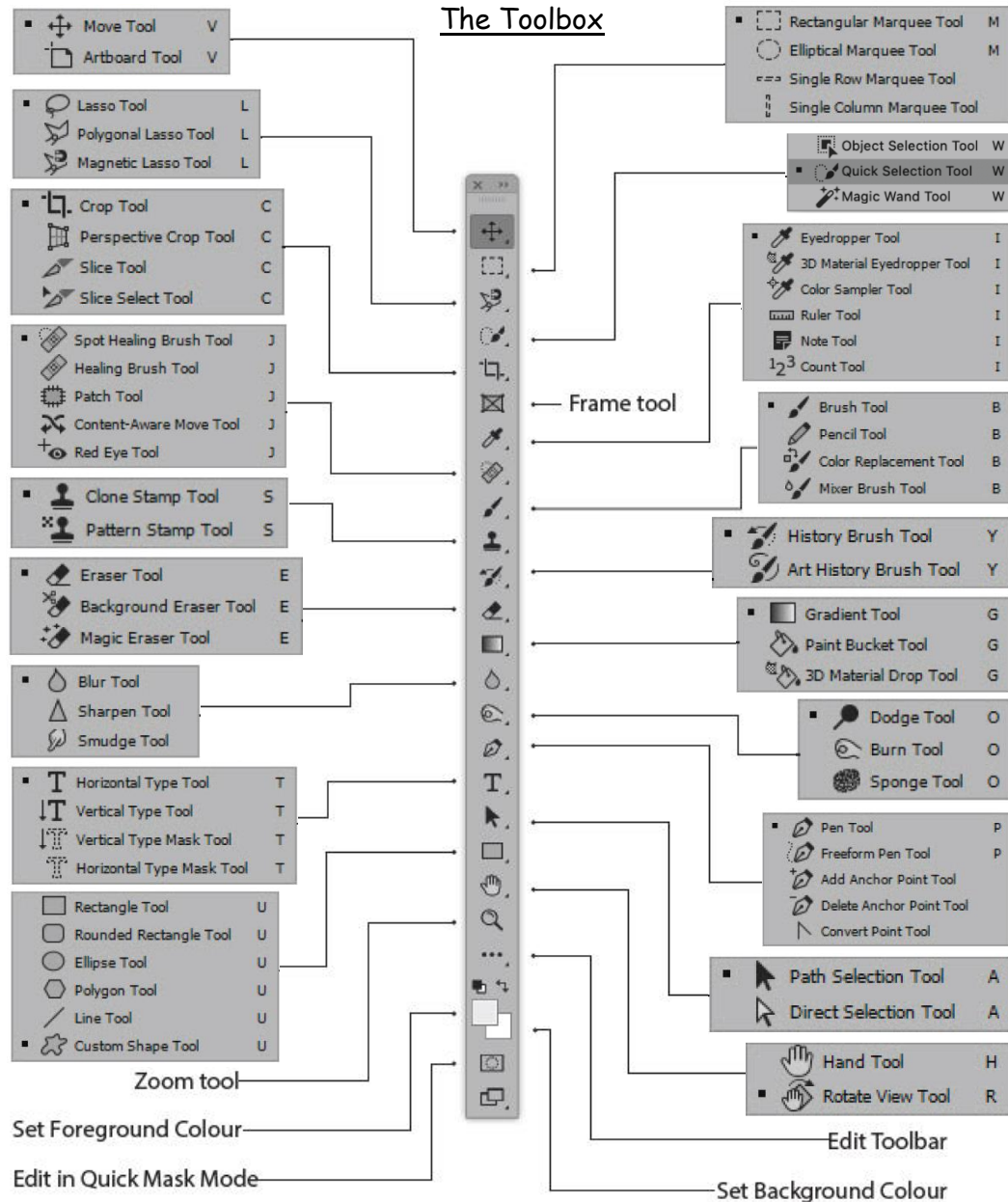**Image Resolution** is the number of pixles in an image, per unit length (Pixels per Inch)

- 1 sq in at 72ppi (72x72) = **5,184**px

72ppi – LOW resolution
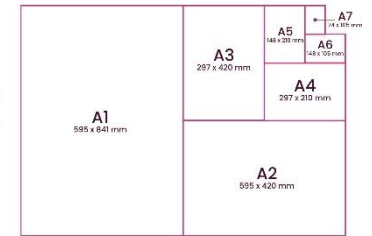
- 1 sq in at 300ppi (300x300) = **90,000**px

300ppi – HIGH resolution

The Toolbox

Move Tool — V
Artboard Tool — V

Lasso Tool — L
Polygonal Lasso Tool — L
Magnetic Lasso Tool — L

Crop Tool — C
Perspective Crop Tool — C
Slice Tool — C
Slice Select Tool — C

Spot Healing Brush Tool — J
Healing Brush Tool — J
Patch Tool — J
Content-Aware Move Tool — J
Red Eye Tool — J

Clone Stamp Tool — S
Pattern Stamp Tool — S

Eraser Tool — E
Background Eraser Tool — E
Magic Eraser Tool — E

Blur Tool
Sharpen Tool
Smudge Tool

Horizontal Type Tool — T
Vertical Type Tool — T
Vertical Type Mask Tool — T
Horizontal Type Mask Tool — T

Rectangle Tool — U
Rounded Rectangle Tool — U
Ellipse Tool — U
Polygon Tool — U
Line Tool — U
Custom Shape Tool — U

Zoom tool

Set Foreground Colour
Edit in Quick Mask Mode

Frame tool

Rectangular Marquee Tool — M
Elliptical Marquee Tool — M
Single Row Marquee Tool
Single Column Marquee Tool

Object Selection Tool — W
Quick Selection Tool — W
Magic Wand Tool — W

Eyedropper Tool — I
3D Material Eyedropper Tool — I
Color Sampler Tool — I
Ruler Tool — I
Note Tool — I
Count Tool — I

Brush Tool — B
Pencil Tool — B
Color Replacement Tool — B
Mixer Brush Tool — B

History Brush Tool — Y
Art History Brush Tool — Y

Gradient Tool — G
Paint Bucket Tool — G
3D Material Drop Tool — G

Dodge Tool — O
Burn Tool — O
Sponge Tool — O

Pen Tool — P
Freeform Pen Tool — P
Add Anchor Point Tool
Delete Anchor Point Tool
Convert Point Tool

Path Selection Tool — A
Direct Selection Tool — A

Hand Tool — H
Rotate View Tool — R

Edit Toolbar

Set Background Colour

A1 595 x 841 mm
A2 595 x 420 mm
A3 297 x 420 mm
A4 297 x 210 mm
A5 148 x 210 mm
A6 148 x 105 mm
A7 74 x 105 mm

Selecting a tool

Click a tool in the Tools panel. If there is a small triangle at the lower right corner of a tool, hold down the mouse button to view the hidden tools. Then click tool you want to select. Press the tool's keyboard shortcut. The keyboard shortcuts are displayed in its tool tip. For example, you can select the Lasso tool by pressing L.

Possible Art Careers:

Industrial Designer
Toy Designer
Urban Designer
Sign Writer
Brand Designer

The higher the **image resolution**, the better the definition.

The greater the amount of **pixels** in an image the larger it will appear on screen.
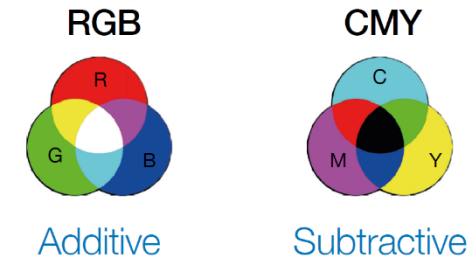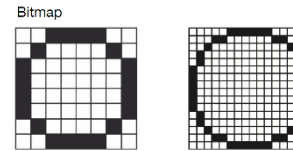
Colour Models

Light vs. Ink

Digital cameras and computer monitors used red, green and blue (RGB) light to display colour. **RGB** is an **additive** colour model, with all the primary colours are combining to form white.
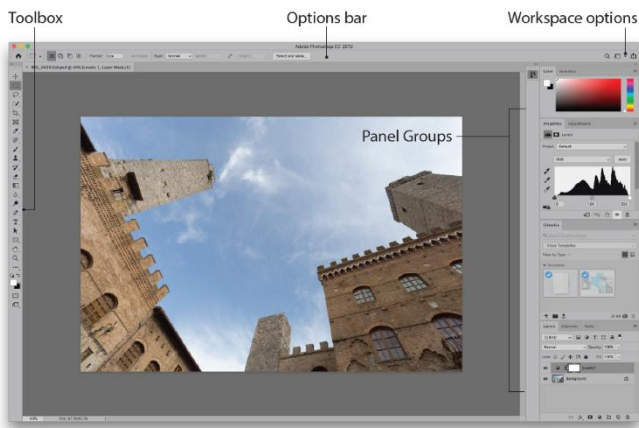
We can't print light, so commercial printing presses print with cyan, magenta, yellow and black (CMYK) ink, called process printing. **CMYK** is a **subtractive** colour model since without any inks there is no colour and when all the inks are combined then black is the result.
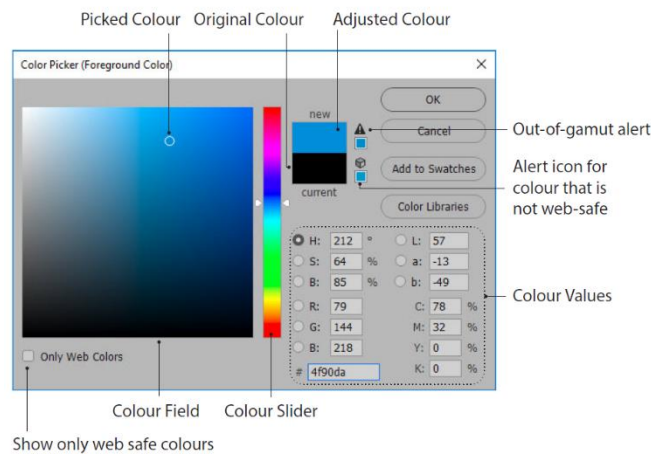
Colour Gamut

A **gamut** is the range of colours that can be printed. An **RGB** colour could be out of **gamut**, and unprintable for a particular **CMYK** setting.
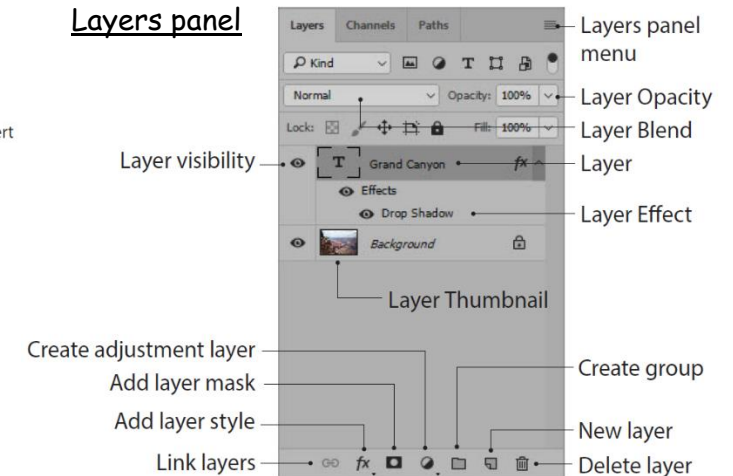
Bitmap

Image Resolution
on the printed page

Low resolution 72ppi   High resolution 300ppi

RGB   CMY

Additive   Subtractive

The Photoshop Work Area

Toolbox   Options bar   Workspace options

Panel Groups

Colour Picker Overview

Picked Colour   Original Colour   Adjusted Colour

Color Picker (Foreground Color)

new   OK
             Cancel   Out-of-gamut alert
current   Add to Swatches   Alert icon for
             Color Libraries   colour that is
                                not web-safe

H: 212 °   L: 57
S: 64 %   a: -13
B: 85 %   b: -49
R: 79   C: 78 %
G: 144   M: 32 %   Colour Values
B: 218   Y: 0 %
4f90da   K: 0 %

Only Web Colors

Show only web safe colours

Colour Field   Colour Slider

Layers panel

Layers   Channels   Paths   Layers panel
                                    menu
Kind   Opacity: 100%   Layer Opacity
Normal   Layer Blend
Lock: Fill: 100%
                                    Layer
Layer visibility   T Grand Canyon   fx
                        Effects
                        Drop Shadow   Layer Effect

                        Background

Create adjustment layer   Layer Thumbnail

Add layer mask   Create group

Add layer style   New layer

Link layers   fx   Delete layer

Key Vocabulary – File Formats		
Photoshop (.psd) – layers, transparency, paths, channels	**Tiff (.tif)** – layers (in Photoshop), channels, file compression	**JPEG (.jpg)** – file compression, photos on web, 8-bit
HEIF – x0.5 JPEG file size	**GIF (.gif)** – limited/flat colour on web	**PNG (.png)** – transparency, web, Microsoft Office
Useful websites to research further knowledge		
If you want to use or practice Photoshop at home try Photopea. Type Photopea into google. Photopea is a free web-based photo and graphics editor similar to Photoshop.		