

# About ... Digital Images

There are two types of digital images:

**Vector Images** (.ai, .eps, .svg) are constructed using mathematical formulas rather than individual colored blocks, so are excellent for creating graphics that frequently require resizing. Logos and brand graphics should be created as a vector.



A vector image,  
printed at  
1 inch wide

**BOOKS**

The same image, printed at 3 inches wide.



**BOOKS**

## PPI (Pixels Per Inch)

An image's pixel dimensions divided into the size to be printed (also sometimes referred to as DPI - Dots Per Inch)

**Use a minimum of 300 dpi/ppi for printed images.**

For large format printing (eg. posters) a minimum of 150 dpi/ppi is usually acceptable.

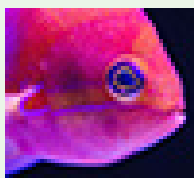
Web graphics are usually 72 dpi/ppi - far too small for printing.

Minimum dimensions for high quality print:

Print size	Dimensions (cm)	Minimum picture size (pixels)
A6	10.5x15	1250x1800
A5	15x21	1800x2500
A4	21x30	2500x3500
A3	30x42	3500x5000

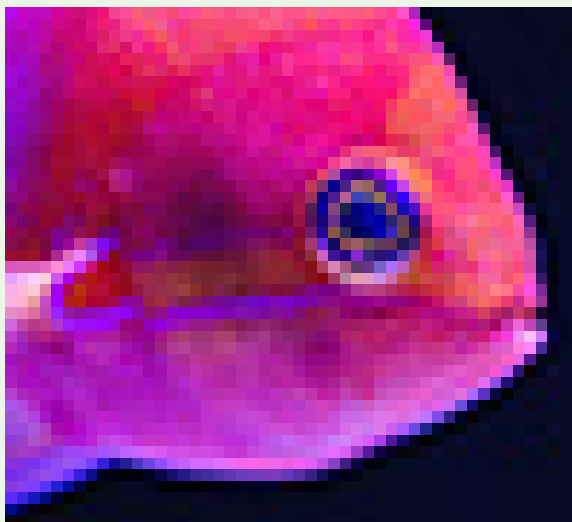
**Raster Images** (.jpg, .gif, .png, .tif) use many coloured pixels to form an image. These can be digital photos, scans of illustrations, etc.

Raster images are constructed using a fixed number of pixels, so can't be dramatically resized without compromising their resolution. When stretched to fit a space they weren't designed to fill, their pixels become visibly grainy and the image distorts.



50x45 pixels,  
printed at  
1 inch wide

50x45 pixels, printed at 3 inches wide



Here is the image at full resolution.  
It is 1028x1002 pixels. When printed at 3 inches wide, the resolution is 342 dpi/ppi.

