



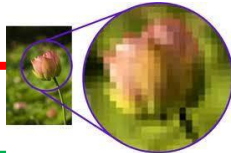
Year 9 Spring 2 – Digital Graphics

Digital Graphics are any image/object that is displayed or created on a digital device such as a computer and stored as data. A Digital Graphic series of images that is sometimes accompanied with text to form a story.

A **bitmap/raster** image is made up of a series of squares known as pixels. Each square contains a certain colour that when put together create a full image. A pixel is an area, usually a square, on a screen that displays either light or a colour.

Advantages and disadvantages

The file size of a bitmap graphic is often quite large. Bitmap graphics lose quality when they're resized. Bitmap graphics can be used for complex images like photographs.



A **vector** graphic is an image that is made up of paths, lines, curves, shapes and blocks of colour. It is different to a bitmap graphic because it does not use pixels to create the image.

Advantages of vector

- Smaller file size - vector graphics, unlike bitmap images, do not store data about each individual pixel.
- Scalable - when you resize a vector graphic the mathematical relationships mean that the image does not lose quality.

Disadvantages of vector

- Vector graphics are never going to be as lifelike as bitmaps or photos. They will always appear computer generated.

Raster **VS** Vector



vector-conversions.com

The **purpose** and **audience** will influence the design of the graphic.

- To Entertain
- To Convey a Message
- To Persuade
- To Advertise
- To Inform
- To Educate

The design use of colour, composition, white space and style will change depending on the purpose.

A **pixel** is an area, usually a square, on a screen that displays either light or a colour.

Pixel Dimensions - are the horizontal and vertical measurements of an image expressed in pixels. DPI resolution is the number of Dots per inch. Therefore, the more dots per image, the higher the quality. Compression is minimising size of the bytes without compromising the quality of the image.

File Types

JPG – small file size, used by cameras and for images on the internet.

GIF – small file size, used on the internet for images that have large blocks of colour.

PNG – small to medium file size, designed to replace **GIF**. It is slowly growing in use.

BMP – large file size, rarely used these days.

TIFF – very large file size, primarily used in the print industry.

BMP - A bitmap (or raster graphic) is a digital image composed of matrix dots.

PDF - Store a wide variety of data including images.