Image file formats

The format of a file is important to know

The format tells us the type of file we have

Different formats are good for different purposes. And different formats can be opened by different software or used in different ways

Image file formats

Bitmap formats to know:

- JPG
- PNG
- GIF
- PSD
- TIFF

Image file formats

JPG (or JPEG)

- Joint Photographic Expert Group
- standard format for digital photos – your phone will almost certainly take JPGs
- made up of pixels – so they can’t be made bigger
- each pixel is an individual colour made from Red, Green and Blue (RGB). There are 256 different values for red, 256 for green and 256 for blue – making 16.7 million different possible colours

Image file formats

JPG (or JPEG)

- all image editing software uses JPG
- can be edited easily
- can be used in all applications
- JPGs are **compressed**. This makes the file size smaller, so they’re good for use on the internet and makes them quicker to download, transfer or send via email
- the type of compression used by JPG can lose some detail at low quality levels – the difference in shades between individual pixels can be lost

Image file formats

PNG

- Portable Network Graphic
- standard format for screenshots
- made up of pixels – so they can't be made bigger
- the range of colours is usually less than JPG
- PNGs are **compressed**, but in a way that doesn't lose any detail (unlike JPG). But this can make the file size bigger, so they take longer to download and open
- PNGs can use **transparency**. This is a major advantage and makes PNGs ideal for final versions of logos and anything that needs transparency

Image file formats

GIF

- Graphic Interchange Format
- made up of pixels – so they can't be made bigger
- the range of colours is much less than JPG. This makes them only useful for small, simple graphics, such as lower quality logos
- GIFs are **compressed**, but in a way that doesn't lose any detail (unlike JPG). But this can make the file size bigger, so they take longer to download and open
- can use **transparency**
- can use animation – which is a major advantage

Image file formats

PSD

- Photoshop Data File
- made up of pixels – so they can’t be made bigger
- can only be opened and used in Photoshop
- so final versions need to be **exported**
- use **layers** to add lots of editing options (JPG, PNG and GIF don’t use layers at all)
- high quality
- can use **transparency**
- can use animation
- excellent for editing; poor for final use

Image file formats

TIFF

- Tag Image File Format
- made up of pixels – so they can't be made bigger
- limited compression – so file size is usually big
- very high quality image. TIFF are a good choice as a final export from Photoshop for any file that needs to be sent to a commercial printer
- can retain **layers** so can be edited even after export
- can use **transparency**
- don't open in as many apps, so not as useful. Much harder to use on the web