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**I don't know about
digital file formats,
*but I need to know!***

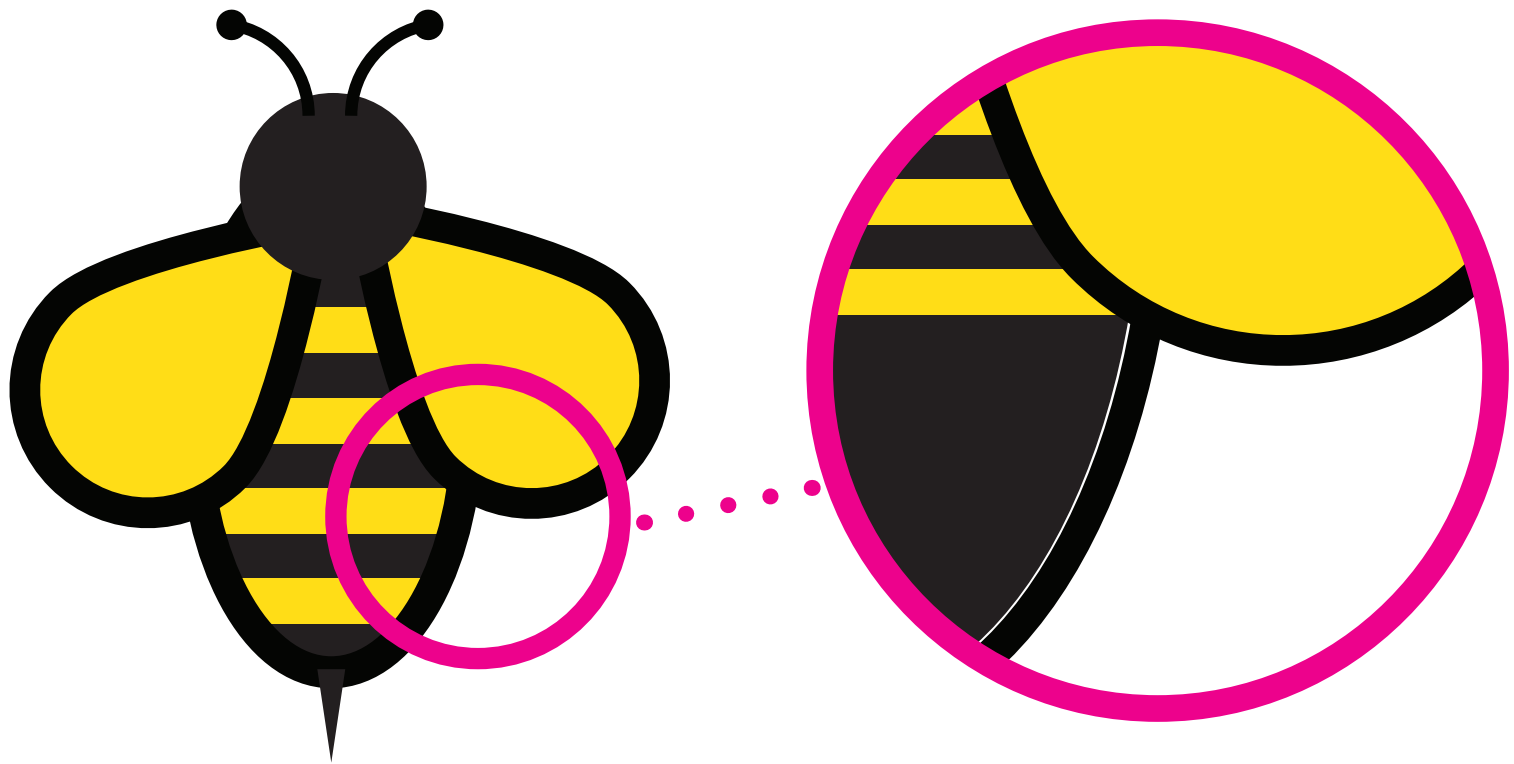
”

VECTOR
VS
RASTER

Vector files

- Made up of lines and shapes
- Can be printed at any size without loss of quality
- Can be converted to raster
- Best for logos, drawings and illustrations
- Created in Adobe Illustrator, CorelDraw, Inkscape

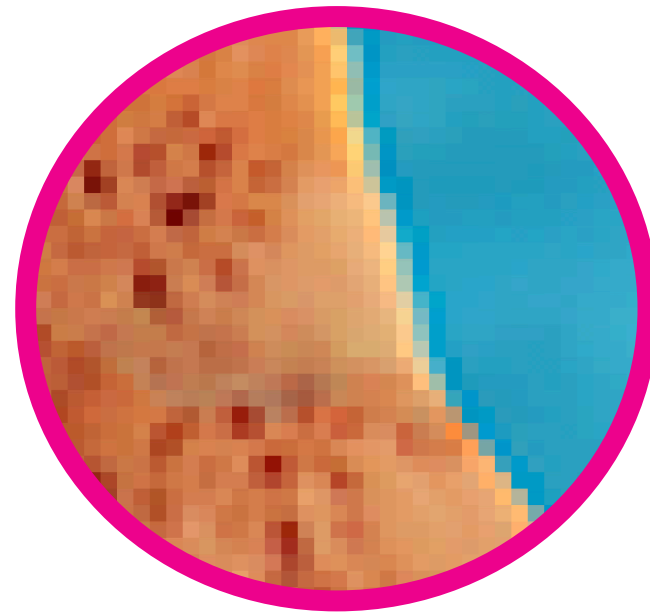
Vector files



Raster files

- Pixel-based, made up of squares of color
- Photographs are made up of pixels
- The larger the images are used, the lower the quality becomes
- Edited using Adobe Photoshop or photo editing software

Raster files



**HOW ARE THE
IMAGES BEING USED**

Image use:

What is the final use of the artwork?

- **Web based** - for use on a TV, monitor, cell phone, tablet or light-emitting device
- **Print based** - brochure, flyer, book, business card, letterhead, T-shirt, balloons, signs

IMAGE FILE TYPES

JPEG

- For saving images / photographs.
- Save JPEGs for **WEB OR PRINT**
- JPEGs only save pixel / raster files
- Never save vector files as JPEG as they will no longer be vector

TIFF

- For saving images / photographs.
- Save TIFFs for **PRINT** only
- TIFFs only save pixel / raster files
- Never save vector files as TIFF as they will no longer be vector

PNG

- Best for saving graphics, logos or type
- Save PNGs for **WEB** only
- PNGs only save pixel / raster files
- Never save vector files as PNG as they will no longer be vector
- PNG files can be made transparent

GIF

- Best for saving graphics, logos or type
- Save GIFs for **WEB** only
- GIFs only save pixel / raster files
- Never save vector files as GIF as they will no longer be vector
- GIF files can be made transparent

EPS

- For saving graphics, logos or type
- Save EPSs for **PRINT** only
- Older file format that isn't used much as other file types are more current and work well if not better

SVG

- For saving vector graphics, logos or type
- Save SVGs for **WEB** only
- SVG files can retain vector shapes for web and make them scalable to any size without reduction in quality.
- Fairly new file format, not used extensively

PDF

- PDF file format is the most universally acceptable file format to save virtually any type of art
- For saving vector graphics, logos or type to retain vector attributes
- For saving images to use for print

IMAGE RESOLUTION

PPI

- **PPI** - Pixels per inch
- Number of pixels that make up a photograph
- More pixels, the more information
- More pixels, the bigger the file
- Commonly called DPI which is not correct but people use this term interchangeably.

hi-res or low-res

- **Print** - 300 pixels per inch
- **Web** - 72 pixels per inch

- 300 pixels per inch is considered **Hi-Res**
- 72 pixels per inch is considered **Lo-Res**

Scaling pixel images

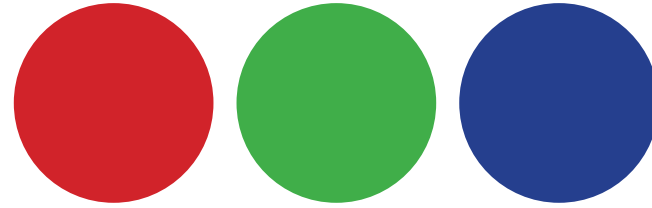
- **Larger** - the more you scale an image **UP**, the resolution goes **DOWN**.
- **Smaller** - the more you scale an image **DOWN**, the resolution goes **UP**.
- If you stretch anything bigger, it becomes thinner as you are stretching the same amount of info over a larger area.

Scaling vector

- **Nothing** - That's right, as you scale vector up or down, the file still reproduces the same no matter what the size.
- Most common form of a vector file is fonts.

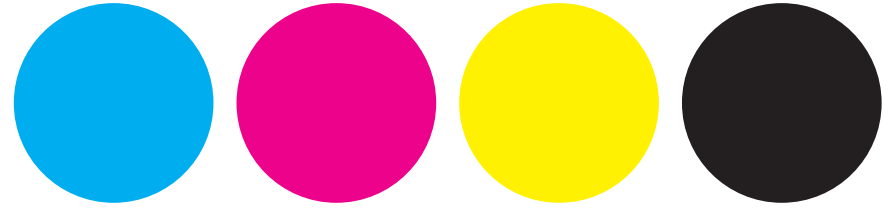
COLOR MODES

RGB



- **RED - GREEN - BLUE** - Visible spectrum of light that is used to capture and display color
- Cameras capture RGB
- TV's, monitors, cell phones, tablets display RGB
- Use RGB for all content used on a web site or displayed on a light-emitting device

CMYK



- **CYAN - MAGENTA - YELLOW - BLACK** - Colors for printing as it is pigment based
- CMYK cannot be displayed correctly TV's, monitors, cell phones, tablets
- Use CMYK for print purposes only

IMAGE SIZING

Sizing for Web

- All web measurements are in **pixels**, never inches, mm, cm...
- Image size for web use is always **pixel width** × **pixel height** (300 × 450)
- All web images are 72 PPI

Sizing for Print

- Print measurements are measured in inches, cm, mm..., never pixels
- Print images should ~300 PPI for hi-res files, with a lower quality (marginal) at 225 PPI