

# Graphic Design Cheat Sheet

## 1. What are pixels?

A pixel is the smallest element in a digital image. It is a single square that is a part of a grouping of squares that make up your image. The number of pixels you have in each direction (height and width) determines the size of the image. For example, if you have an image that is 125 px x 125 px, that means that your image is a square and is 125 pixels high and 125 pixels wide.



## 2. What does 'vector' mean?

A vector image is made of points instead of pixels. What that means in layman's terms is that a vector image can be blown up to a much larger size without being blurry.

## 3. What are CMYK and RGB, and what's the difference?

These are color modes for images either on a screen or in print. CMYK stands for Cyan, Magenta, Yellow, and Key (which just means black) and RGB is red, green, and blue. CMYK is used for printing and is often called '4 color process' or '4 color printing' while RGB is used for devices with a monitor like a TV or a computer. Keep in mind, if artwork is created in RGB, it might look great on screen however it will print out a different color in CMYK!



## 4. What in the world is PANTONE?

PANTONE Color Matching (aka PMS) is a standardized color matching system that allows a designer to accurately match a color across all forms of media. The reason this is important is because the red I see on my monitor might be vastly different from the red you see on your monitor depending on the settings. A PMS number tells the printer how much of each color to use when printing an image. So, if your color is PMS 187 (SAGE red), the printer would use a certain percentage of the CMYK colors every time so you know you're getting the same color even if you are printing from different printers.



## 5. What are the differences between file types?

The three most common file types for web-based images are .jpeg, .png, and .gif. Here's a rundown of what makes each other them different.

**JPEG** – JPEG images are ideal for files with gradients and allow for a smaller file size through compression

**PNG** – PNG images are lossless, so they do not lose quality during editing, support transparency, and tend to be larger than jpegs

**GIF** – GIF images are able to maintain a low file size while being able to support animation

A few other common file types like .pdf, .psd, and .ai, refer more so to the format of the file and/or where it was created.

**PDF** – Incorporates all the elements of a printed document as an image that you can view, print, or send to someone else

**PSD** – Refers to a file created in Adobe Photoshop

**AI** – Refers to a file created in Adobe Illustrator



## 6. Raster vs. Vector Images – Which One To Use?

A vector image is a series of curves, lines and shapes all based on mathematical equations like that algebra class you never thought you would use to create an image in the computer. A raster image, on the other hand, is a representation of an image using a variety of pixels.

Vector art is ideal for all forms of printing. Since the art is based on an equation, the image can be printed in any size and the quality will remain the same. You can use a vector image for a business card and then use the same image for a billboard sized project and the art will still be crisp and clear.

