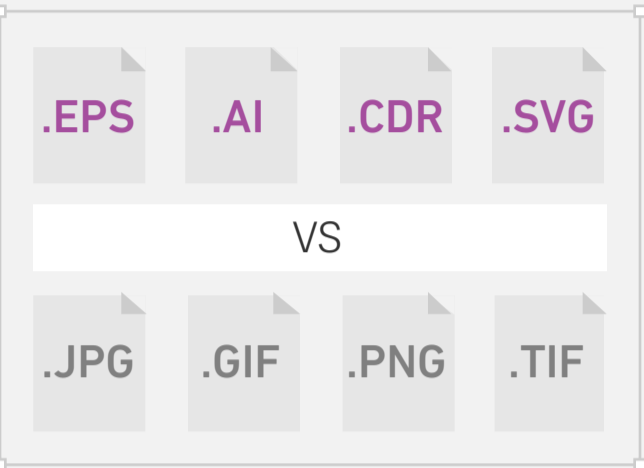# VECTOR ARTWORK
INFOGRAPHIC

WHAT IS VECTOR ARTWORK?

Vector graphics are comprised of paths that have starting and ending points, as well as other points, curves and angles along the way. A path can be a line, a square, a triangle or a curvy shape. These paths can be used to create simple drawings or complex diagrams.

The file extensions are:

.EPS	.AI	.CDR	.SVG
VS			
.JPG	.GIF	.PNG	.TIF

Vector files can be created using a variety of software, including:

- **Ai** Adobe Illustrator
- CorelDRAW
- AutoCAD
- Inkscape
- SVG
- Serif DrawPlus
- Xara
- Sketch

FUN FACT:
One of the first uses of vector graphic displays was the US SAGE air defense system and they are still in use in military systems.
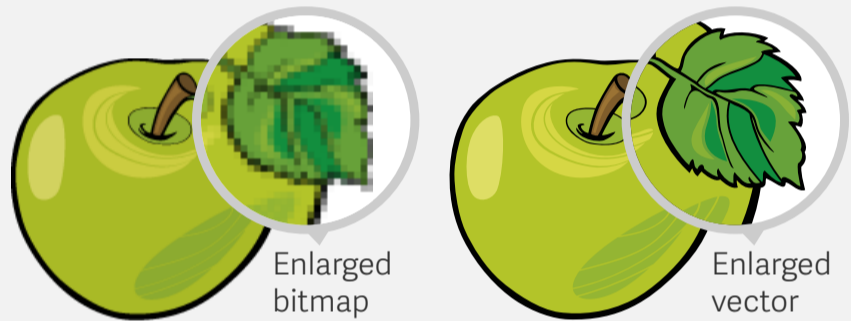
WHY DO YOU NEED VECTOR ARTWORK?

FUN FACT:
The World Wide Web Consortium (W3C) standard for vector graphics is Scalable Vector Graphics (SVG), which has become a format independent of the rendering device (e.g., printer, monitor, etc.)

W3C® **.SVG**

Because of the way images are defined, vector artwork can be sized up or down without any loss of clarity. In contrast, bitmapped designs look pixelated when they are enlarged.

Enlarged bitmap

Enlarged vector

CAN'T I JUST SAVE A DESIGN IN THE .AI OR .EPS FORMAT?

A graphic designer can convert your file to vector but just saving a design as another file type will not make it vector artwork. The design has to be created in a specific program (see above).

FUN FACT:
It is much easier to convert from vector files to bitmap or raster file formats, which has to be done for most printing.

WHAT ARE THE GRAPHIC FILE FORMATS AND HOW ARE THEY USED?

.EPS
Vector for promotional products and apparel decoration; contain PostScript code used for storing font and vector image information; may also include rasterized or bitmap versions of images for previewing files; often used for transferring files between various graphics applications; does not support transparency

FUN FACT:
Postscript fonts and TrueType fonts are vector formats and scalable.

.AI
Vector for promotional products and apparel decoration; supports transparency; the proprietary format of Adobe Illustrator

.CDR
Vector format for promotional products and apparel decoration, the proprietary and native format of CorelDRAW

.SVG
XML-based vector format for illustrations, logos, diagrams, maps, websites and digital applications; designed to work with other web technologies

.JPG
Low-resolution raster format for viewing art and often used for rectangle or square photographs online; they cannot have transparent backgrounds

.GIF
Low-resolution, raster format formed of up to 256 colors from the RBG color space; great for images that have just a few solid colors and no gradients or natural shades such as simple web graphics; does not work for photographs

.PNG
Similar to .jpgs but can have transparent backgrounds and are generally larger and higher quality; good for logo files on websites

.TIF
A large raster file that is primarily used in printing; because of size, generally should not be used on websites