

## Images and Art

### Two types of images:

In the graphics world, there are two distinct types of images.

- **Vector** images are mathematical in origin (no, you can't "see" those numbers) and can be resized up or down with no loss of image quality at all. Vector images are created in programs like Illustrator, CorelDraw and CAD programs.
- **Bitmap** images are created in pixels (little "bits" of information—you can actually see them if you enlarge an image on your screen about five times). Because the number of pixels is established when the image is created (or the photo is taken), enlarging a bitmap image beyond its original size causes "jaggies." Bitmap images are photographs as well as art created in programs such as PhotoShop, Elements, and PhotoPaint.

### Avoid the "jaggies"

- ✗ Don't rescale a bitmap image larger than it was originally created
- ✗ When taking digital photos, set your camera on "high" quality if you think you'll ever use the resulting photographs in a printed project. Yes, you'll get fewer photos on your card, but the images will be much better quality.
- ✗ Don't use images or logos "grabbed" off of a website. Website image resolution is only 72 dots per inch; professionally-printed materials require at least 200 dpi (and preferably 300 dpi) to look equally sharp.
- ✗ If scanning photographs or artwork, scan at 300 dpi.

### Color formats for printed materials

If you're creating a project that will be printed, your choice of image(s) is important to how well your final project will appear.

- Is your final printing on an in-office inkjet printer? Use images created or converted to RGB (red/green/blue) format.
- Printing professionally in black or a single color ink? Convert your image to "greyscale" for the best reproduction.
- Printing professionally in "full color"? Use images which are in CMYK (cyan/magenta/yellow/black) format