There is nothing that stirs bile as an ill-sized image. —Mark Twain

The only thing that makes up an image is pixels

Document Size means print size (or eventual print size)
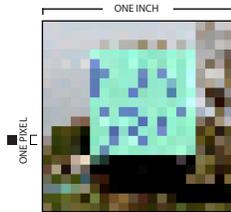
Resolution is the number of pixels per inch
Constrain Proportions means don't stretch or squish
Resample means change the number of pixels

Image Size

Pixel Dimensions: 234.4K (was 58.6K)

Width: 400 — pixels
Height: 200 — pixels

Document Size:

Width: 2 — inches
Height: 1 — inches
Resolution: 200 — pixels/inch

☑ Scale Styles
☑ Constrain Proportions
☑ Resample Image:
Bicubic (best for smooth gradients)

OK
Cancel
Auto...

The file size at the top of the image size box will show you if you are adding pixels by showing a larger file size. Always make sure the *was* size is smaller or the same as the file size. K (kilobytes) is smaller than M (megabytes). This example shows a mistake - do not click OK.

The minimum number of pixels per inch in this lab is 200. Above 300 pixels per inch you will not realize any more quality.

ONE INCH

ONE PIXEL

This image is made up of 20 pixels in height and 20 in width. Printed at one inch, there will be 20 pixels per inch. It will not print well at this resolution (as you can see).

This is the same 20 x 20 pixel image with a document size that will give 200 pixels per inch. This is as large as this particular image will print well (at a tenth of an inch!). What you are doing in image sizing is making the pixels small enough to not show.

ONE INCH

ONE PIXEL

FISH STONE

This image is made up of 200 pixels in height and 200 in width. Printed at one inch, there will be 200 pixels per inch. It will print well at this resolution (as you can see).

Before sizing any image
Use the scanner settings you think most appropriate - you can always do it over if they are wrong. If you are acquiring images from the web, simply drag them to the desktop and then open them in Photoshop. Google shows pixel sizes in its searches. That is because it is important. An image that is 600 pixels wide will print 3 inches wide at most. If you cannot find images with enough pixels, then consider making them smaller in your layout or finding other images.

Sizing images should be done before any work is done on your image - if you do not know the final print or screen image size, then determining this will be your first step. You should probably run one pass of the *Filter / Sharpen / Sharpen* (or *Unsharp Mask*) on your image after resizing.

Sizing images for screen (web, digital presentations, email)

1. Scan image at settings you think might be appropriate (or get the biggest [in pixels] as you can from the web).

2. In Photoshop, go to *Image / Image Size*. With the *Resample Image* box and the *Constrain Proportions* boxes checked, enter the size in pixels in the upper half of the box (either width or height). The standard smallest monitor size is 800 x 600 pixels. Your target monitor may be different. The image size in Photoshop at 100 percent is the size the image will be in any web, email, or digital presentation.

3. Check at the top of the dialogue box to make sure that the *"was"* size is greater than the *Pixel Dimensions* size. If it is not, then rescan your image using more resolution or a higher percentage (or get different web image). If it is greater, then click OK.

4. Save image as a Photoshop file if you will be working on it more in Photoshop, a *JPEG* file if it is photographic and for use on the web, a *Compuserve GIF* file if it is graphic and for use on the web. You can also use the *Save for Web* option for JPEGs and GIFs with the advantage of seeing your quality loss and file size before you save. PNG files are also a good format to use.

Copying and pasting from one image to another in Photoshop
When copying from one image to another, you will notice that the image will paste according to the relative pixel dimensions, not the document size or window size. If you need to make the pasted image bigger, then rescan it and paste again. If you need to make the pasted image smaller, you can change the pixel dimensions as above or use Photoshop's transform tool.

Sizing images for prints (or to place into Illustrator or InDesign)

This will not guarantee a great-looking image, but it will assure that faulty image sizing is not making your designs worse. Get good images to start with.

1. Scan image at settings you think might be appropriate (or get the biggest you can from web).

2. In Photoshop, go to *Image / Image Size*. With the *Resample Image* box unchecked, enter the *Document Size* (print size) your image will be in the final printout or in InDesign (either width or height). If you don't know it the eventual printed size, figure it out before going on.

3a. If the resulting *Resolution* is less than 200 pixels per inch, then go back to step one and try to scan (or get web image) with more resolution (pixels).

3b. If the resulting *Resolution* is more than approximately 300, then (to save disk space) check the *Resample Image* box (and check the *Constrain Proportions* box) and enter a resolution of 250 in the *Resolution* field. Check at the top dialogue box to make sure that the "was" size is greater than the *Pixel Dimensions* size. Click OK or hit the return key.

4. Save image as a Photoshop file if you will be working on it more in Photoshop or taking it into Illustrator or InDesign. You can also save as a JPEG if it is finished.

Never resize in InDesign or Illustrator unless it is to just tweek the size of an image. Making an image larger in these programs is exactly the same as changing the resolution (pixels per inch) to a lower number.