# Working with Photos 

Part 1: Finding Copyright Free Images Online Part 2: Calculating the Pixel Size of a Picture for Optimal Print Quality

By Rachel Nadrowski-Jiang

## When To Use These Instructions

When you are working with photos in PowerPoint, especially when you are inserting/formatting photos in PowerPoint and deciding how large to make the photos on a poster.

The screenshots depicted throughout will reflect the visual look of PowerPoint 2013 on a PC. If you have a different version of PowerPoint or a different operating system on your computer, the visual on your screen may be slightly different, but you should still be able to navigate the steps.

## Part 1

Finding Copyright Free Images Online

1. Have your internet browser open and type search.creativecommons.org into your internet browser address bar

2. Click on Google Images, type what you need a picture of in the search bar, and click


## SoundCloud

Music

This step uses Google Images to search, but Flickr is also an option to search for images from this screen.
3. Make sure labeled for reuse with modification is selected


This will ensure the images you see will most likely be free to use and modify/change for your needs.
4. Click on the image you like

5. Check that the pixel dimensions are in the high hundreds or above


The larger the pixel dimensions, the larger a picture can be printed on a poster without losing image quality.

The specifics of pixel dimensions and picture size in the next section.
6. Right-click on the image and click Save image as

7. Choose where on your computer to save, choose the file name, then click save


You have successfully found and obtained a copyright free image from online

## Part 2

Calculating the Pixel Size of a Picture for Optimal Print Quality

1. Go to where your picture is saved on your computer and hover your cursor over it


The numbers shown as the Dimensions tell what the length and width of the picture is in pixels

This picture has a pixel length of 6,000 and a pixel width of 4,000 .
2. Have your PowerPoint poster document open, click on the View Tab, and make sure the Ruler box is checked

3. Measure how many inches across you need the picture to be on your poster


On the left is an example of how big a picture might need to be for a poster.

Your picture size needs may be different for your poster.
4. Find out what the picture's Pixels Per Inch (PPI) will be by dividing its pixel length by how many inches across the picture will be on the page



If your calculation does not equal 180ppi or above, you will need to find a picture with larger pixel dimensions, or plan to make the picture smaller on the poster and recalculate the ppi.
$\mathbf{P P I}=$ pixels per inch
Pictures viewed in print form need to have a minimum of 180ppi, but ideally should have 300ppi to be at best quality.

Pictures viewed on a computer screen need to be at least 72ppi to be good quality.
5. Reference the table below to see how many pixels and ppi are needed for best print quality based on the size your picture

| Print <br> Size (") | File size required for Print |  |  |
| :--- | :--- | :--- | :--- |
| $180 p p i$ (good) | 240 ppi (better) | 300 ppi (best) |  |
| $4 \times 6$ | $720 \times 1080-0.75 \mathrm{MP}$ | $960 \times 1440-1.4 \mathrm{MP}$ | $1200 \times 1800-2.2 \mathrm{MP}$ |
| $5 \times 7$ | $900 \times 1260-1.2 \mathrm{MP}$ | $1200 \times 1680-2 \mathrm{MP}$ | $1500 \times 2100-3.15 \mathrm{MP}$ |
| $8 \times 10$ | $1440 \times 1800-2.6 \mathrm{MP}$ | $1920 \times 2400-4.6 \mathrm{MP}$ | $2400 \times 3000-7.2 \mathrm{MP}$ |
| $11 \times 14$ | $1980 \times 2520-5 \mathrm{MP}$ | $2640 \times 3360-8.9 \mathrm{MP}$ | $3300 \times 4200-13.8 \mathrm{MP}$ |

The above chart only gives a general idea of the number of pixels needed for best print quality based on picture size. The exact print and pixel size of your picture may be different than those exampled above.

Chart source: from the adorama website < http://www.adorama.com/alc/0008392/article/100-in-100-Size-Matters>.

You have successfully calculated the pixel size of a picture for optimal print quality

