Basic tips on resizing pictures

1. **Pixels and resolution**
   A digital photograph is made up of square dots, or pixels, that are arranged in rows and columns – rather like a spreadsheet or a chess board. When seen by the human eye, there are interpreted as a picture in a similar way to how we see pictures made of mosaic tiles.

   When you take an image file from your camera it is likely to be a few thousand pixels wide and a few thousand pixels high (depending upon your camera). For example, a camera may produce pictures that are 3264×2448. Note that the width is always stated first.

   You may come across the term 'resolution' with units like 'dpi' – dots per inch. DPI is only relevant for printing. At 300dpi the above-sized picture would be a bit over 10" x 8". At 150 dpi it would be double that in each dimension, so four times as big in area.

   On a computer screen, the dpi is fixed so making the dpi setting of a picture redundant. A screen of say 1024×768 could only show about a tenth of our example photograph.

2. **Storage and transmission**
   A smaller picture means a smaller file size. This means it takes up less disk space and uses less bandwidth to transmit. That can be important when Internet service providers restrict disk space and bandwidth. As you can see from the above comments that a big picture is not necessary at all for the digital competition.

3. **Work on a copy**
   The advice on all forms of editing a picture is to work on a copy. Once you have made changes and saved them you cannot get the original file back – and you may need to! So save your work under a different name.

4. **Don't resize bigger**
   If you resize a photograph from small to big, be prepared for the result to be unclear or blurry. Certainly not a good idea for a picture for a competition! The general advice is never to increase the size of a photograph.

5. **Constrain proportions**
   Pictures are rarely square, they are usually oblong. So when you resize your picture, keep your proportions the same otherwise you will get a 'Hall of mirrors' effect. Look for a check box in the software that says something like 'constrain proportions' or 'maintain aspect ratio'.

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March 2013