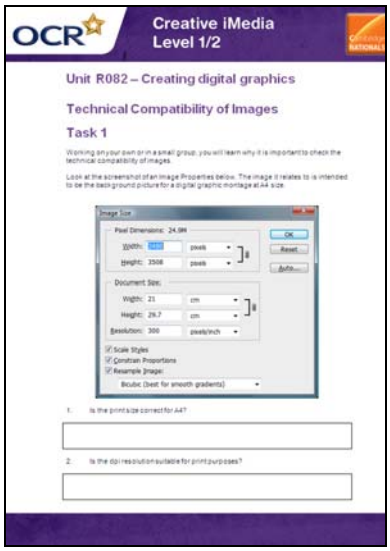
Unit R082 – Creating digital graphics

Technical Compatibility of Images

Instructions and answers for Teachers

These instructions should accompany the OCR resource 'Technical Compatibility of Images Activity', *which supports Cambridge Nationals in Creative iMedia Level 1/Level 2 Unit R082 – Creating digital graphics*



Associated Files:
Technical Compatibility of Images Activity

Expected Duration:
Task 1 – 15 minutes
Task 2 – 30 minutes
Task 3 – 30 minutes

This activity offers an opportunity for English skills development.

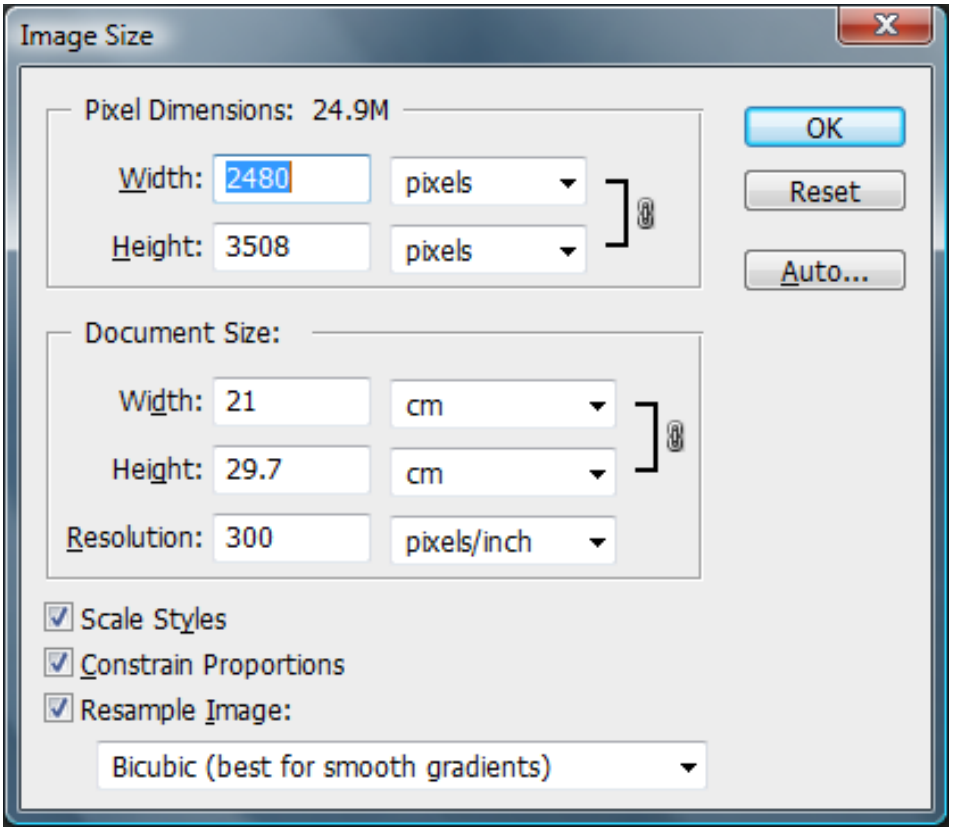
This lesson element enables learners to develop their knowledge in relation to resizing an image so that it is compatible with the digital graphic to be created ie converting the dpi resolution from 72 to 300.

The activities also demonstrate the effect of excessive enlargement of a low resolution image so that the image quality is very poor. Teachers could also explain how technical compatibility includes colour modes and profile of each different image.

Task 1

Working on your own or in a small group, you will learn why it is important to check the technical compatibility of images.

Look at the screenshot of an Image Properties below. The image it relates to is intended to be the background picture for a digital graphic montage at A4 size.



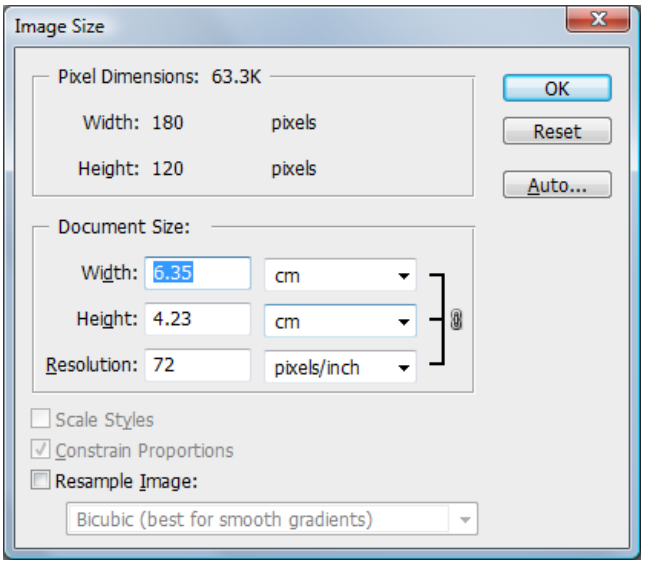
1. Is the print size correct for A4?

Yes – 21cm x 29.7cm

2. Is the dpi resolution suitable for print purposes?

Yes – 300 dpi

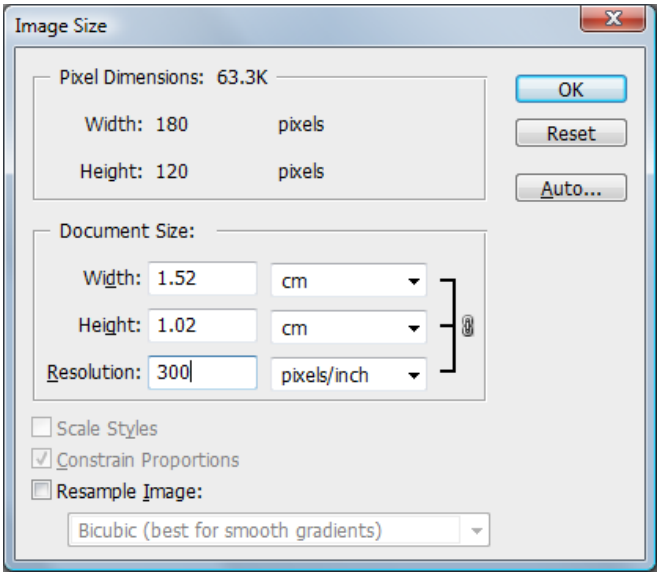
Now consider a smaller image that will be positioned on the main background picture. The properties for this image are shown in the screenshot below:



3. What is the dpi resolution of this image?

72

Let's convert this to a suitable print resolution of 300 dpi to be compatible with our background picture:



4. What will be the size of this smaller image on our A4 page?

1.52cm x 1.02cm

Task 2

Look at the two images below.

Image 1 is a high resolution image.

Image 2 is a low resolution image.

Image 1

Image 2

Comment on the image quality for the two images. What differences are there? Add your comments to the box below.

Image 1 is sharp, with good clean edges.

Image 2 is slightly blurred. It is not sharp and edges are not well defined.

These two images can be downloaded from the OCR Resources Image library located in the Support Materials section of the Creative iMedia Qualifications page http://www.ocr.org.uk/qualifications/creative-imedia-level-1-2-award-certificate-j807-j817/:

You can open these two images in your image editing software to compare them. Experiment with scaling by enlarging Image 2 – drag one of the corners outwards using the move tool (or equivalent).

Task 3

Search for and save some copyright free images from the internet, or access some of the Internet-alternative images from the OCR Resources Image library (located in the Support Materials section of the Creative iMedia Qualifications page http://www.ocr.org.uk/qualifications/creative-imedia-level-1-2-award-certificate-j807-j817/). Remember to right click as *Save Image As*, rather than copy and paste the image.

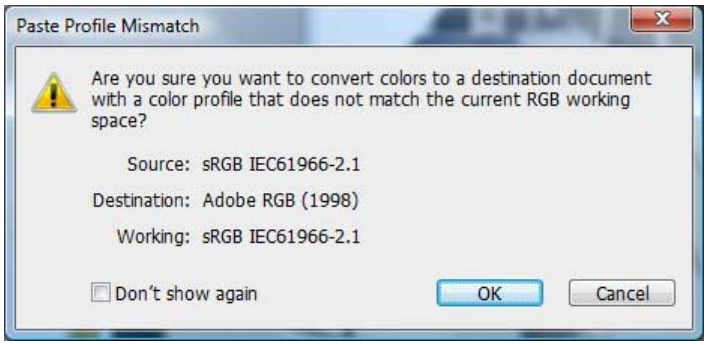
These images will probably be 72 dpi. Look at the Image properties to examine the number of pixels in the image and see how big they could be when used in a montage for a print product. Use the table below to summarise your results:

Example answers are listed below.

Image name	Original resolution/size	Converted resolution/size
London_eye	1024 x 768 at 72 dpi	1024 x 768 at 300 dpi Print size = 3.41 inches x 2.56 inches (8.7 x 6.5cm)
Turtle	320 x 200 at 72 dpi	320 x 200 at 300 dpi Print size = 1.07 inches x 0.67 inches (2.7 x 1.7cm)

Teachers could also explain the following:

When using images from a picture library or digital camera learners might see the following message when creating a montage:



Teachers could explain how technical compatibility includes colour modes and profile of each different image. Images from the internet will be sRGB but some digital cameras and artwork can be setup to use Adobe RGB.