PREPARING GRAPHICS FOR THE WEB USING PHOTOSHOP

Graphics for the web are sourced from photographs, digital and scanned, clip art, pdf's, scanned artwork and artwork created on computers and saved in formats such as eps. These graphics usually need to be processed before they are attached to an html file which is then viewed with a browser. Photoshop is probable the most commonly used programme for preparing graphics, and has a vast range of functions that can also be used to enhance your images.
When preparing graphics you want to optimize their quality but keep their file size to a minimum because larger files take longer to load into a browser and we all hate waiting for files to download.

IMAGE SIZE

Image resolution size is 72pixels/inch for the web
A basic webpage is about 800 x 600 pixels, so an image should be sized proportionally. (You can adjust it's size when you call it into the html page, but an image that is larger than it needs to be will take longer to load.)
Colour mode for web display is RGB.

> File > Open > browse for file (*schoolgroup.jpg*)
> Image > Mode > RGB colour
> Image > Size > Pixel Dimensions / Document Size - alter image size proportionally (tick Constrain proportions box)
> Resolution 72 pixels/inch > OK

FILE FORMATS

The most commonly used image file formats used on the web are gifs and jpgs.

JPG's. Photographs, continuous tone paintings, blends and gradients suit being converted into jpg's. This is a lossy type of compression where data is eliminated, but the 24 bit colour depth is preserved.

GIF's. Flat colour images, line art, text and images with defined edges suit conversion to a gif format. Gifs use defined colours up to a total of 256, and you can further reduce the number of colours to reduce the file size.

Photoshop provides an interface that allows you to view how your original image would look with these formats applied. **Optimizing** is choosing a file format, image size and colour parameters to maximize the quality of your image while keeping the file size small enough for easy web loading and viewing.

1 > Open original file in photoshop (*bushcare logo.eps, GASWISH.tif, Doonside.jpg, GA_volunteers.tif, trolley_icon.tif, StatesYoureIn.psd*)
2 > File > Save for web
3 > Select 4-Up tab to experiment with different settings. Check for the quality of the look of the image, and size and speed of download in bottom left corner of frame
4 > Select Optimised tab to check selection effect on image
5 > Click OK
6 > Save optimized dialogue box - select images only format - Click OK

PDF's Can be linked to from html pages, but you can also convert these files or parts of them in photoshop and place them as 'images' into a web page.

Sourcing image from PDF file *(book_cover.pdf)*

1 > File > Open > browse for pdf file
2 > Open Generic PDF parser > OK
3 > Rasterize Generic PDF format: resolution = 72, mode = RGB > OK
4 > Crop to required size
5 > Save for web

WEB SAFE COLOURS

Websafe colours are specifically numbered colours that come up a constant colour on all monitors. Most current computer systems use monitors that display millions of colours, but previously many used video cards that could only show 256 colours. When deciding on the colours you're using you need to consider who will be using your site, and if your target audience is likely to have older systems which would only display 256 colours, you would do well to use these predefined colours. Unforetunately they provide a limited colour range for designing with, in particular a small selection of the lighter tones.

1 > Open file in photoshop or create new file
2 > Click on the foreground colour box
3 > The colour picker dialogue box will appear showing the range of colours and hues available in photoshop.
4 > Click the Only Web Colors box on the bottom left corner. This displays the web safe colours and their corresponding numbers. You will see that all colours have web numbers assigned to them, and these can be used in web design as well, but won't show true if the monitor viewing the image or page doesn't display millions of colours.
5 > Use the slide to the right of the colour box to see the range of hues.
6 > Click OK and the selected colour will now become available as the foreground colour, for drawing, filling shapes & colouring type.

SIMPLE TEXT HEADINGS

1 > File > New (you may define the size of the file now, of start with a large page and crop later)
2 > Select foreground colour (using colour picker box, or may use eyedropper tool to pick a colour from an existing image - *schoolgroup.jpg*)
3 > Select type tool from tool palette. Pick the font, weight and size from the options bar.
4 > Place cursor on your canvas and type the text heading you want.
5 > To adjust the text you can highlight it & redefine in the options menu, or Edit > Free transform - adjust handles > enter
6 > To change the text colour you highlight the text with the type tool, point to the 'set text colour' box on the options bar, and adjust with the colour picker box, or by eyedropping desired colour from another image / location

To add styles such as drop shadows & embossing to the text:

7 > Highlight the text laye rin the layers palette
8 > Layer > Layer style > Blending options. Remember to click the preview box. (You can adjust these properties by clicking on their layer on the layer palette)

MODIFYING IMAGES *(conferenceHead.jpg, GA_volunteers)*

Increase contrast / brightness:

> Image > Adjust brightness / contrast

Brighten midtones:

> Image > Adjust curves > Drag middle of curve up & to left to increase brightness of mid tones

Clone stamping tool:

> Select clone stamp tool
> Select brush size from options bar
> Holding down alt / option key, click on area of image you will use to paste over problem area.
> Drag over problem area replacing with new pixels

Cropping:

> Select crop tool from toolbar. Click and drag around image to be retained. Adjust with corner handles.
> Enter

Sharpening soft blurry images

> Filter > Sharpen

Erasing:
> Select eraser from toolbar. Select size, style, opacity on options bar.
> Roll over area to be erased. If image is on the background layer, the area will be filled with the background colour, on other layers the erased area will be transparent.

Change colour/ background:
> Select new colour & place in background colour swatch
> Magic wand tool > select colour/area to remove (set tolerance)
> Delete (colour replaced with background colour)
> Deselect

Select tool - Lasso /Polygon lasso:
The lasso tool can be used to make a selection either by drawing freehand or as a straight edged polygon. (Need to bring end of line back to starting point to create your selection - the 'running ants')

MAKING A COMPOSITE IMAGE USING LAYERS

1 > File > Open *Assid sailing.jpg*
2 > Polygonal lasso - click around boat shape
3 > Edit > cut
4 > Edit > paste (pastes onto new layer)
5 > Select background colour on toolbar
6 > Click on background layer on layers palette
7 > Select > All
8 > Edit > clear (or delete key)
9 > Select > Deselect (to remove 'running ants' selection)
10 > Zoom tool - draw marquee over boat to come closer
11 > Magic wand tool (check tolerance & anti-alias)
12 > Click in space under sail to remove remaining sea background
13 > Edit > delete
14 > Select > deselect
15 > Eraser tool - select brush type & size from options bar
16 > Erase over excess areas

17 > Open *DesertRoad.psd*
18 > Select all > Edit > copy
19 > Click in *assid sailing* frame
20 > Edit > paste
21 > Move images above and below one another by dragging them to their desired layer position in the layers palette
22 > Select type tool
23 > Type heading & adjust type layer
24 > Crop image
25 > Image > mode (RGB)
26 > Image > size (72 pix/inch)
27 > Save for web
28 > Save photoshop file

TERMINOLOGY

COLOURS	
Web-safe colours	216 colours that can be used across both mac & pc computers on 8 bit monitors displays (256 colour). Today only a minority of computer systems would still use 8-bit video cards, but you need to consider who your target users are likely to be & whether you should choose to select/design with web safe colours. The available colours are rather sparse on the lighter toned range.
RGB	Colour mode used in web design. It is based on red, green & blue transmitted light, projecting colour onto a computer monitor.
CMYK	Colour mode used for print design based on the 4 process colours used on printing plates.
Foreground colour	Colour applied when painting, drawing, creating type or using the stroke command.
Background colour	Colour remaining after erasing, deleting, moving a selection on the background layer, or increasing the canvas size of an file.
Dithering	Mxing of 2 palette colours to create the impression of a 3rd colour.
Anti-alias	Blending of pixel colours on the perimetre of hard edged shapes, such as type, creating a smoother transition of the shape with the background.

FILES FORMATS	
jpg / jpeg	File compression method that shrinks file size by loosing data, can cause image degradation.
gif	8 bit file format - using 256 or fewer colours.
tif / tiff	File format used for saving bitmapped images such as scanned images.
eps	File containing postscript code, often generated from vector design programmes such as Adobe Illustrator. Logo's are commonly saved in this file format.

IMAGE SIZE	
Resolution	Fineness of detail in a digital image (pixels per inch). When designing for web you should use 72 dpi.
image size	Canvas size and resolution combines to make the image size, which is measured in bytes.
canvas size	Size of the editable image.
byte	Basic unit of storage memory. 8 bits = 1 byte, 1024 bytes = 1 kilobyte kb, 1024 kb's =1 megabyte, mb. When preparing web graphics you will need to ensure that their size is not too large for ease of downloading.