



- How we see
- Colour systems
- Graphic files
- Composition



How the Eye Sees Color

- 1. All the invisible colors of sunlight shine on the object.
- 2. The surface of the object absorbs all the coloured light rays, except for those corresponding to and reflects this color to the human eye.
- 3. The eye receives the reflected light and sends a message to the brain.





human eye can see 7,000,000 colors.



Color Systems

Additive Color The RGB Color System





Subtractive Color

Red Yellow Blue





The CMYK Color System

Cyan, Magenta, Yellow and Black





Terms to know

- Hue/Color
- Value
- Saturation
- Contrast
- Brightness or Tint

20		
hue		
value		
saturation		



Colour Themes



Complementary colors:

colors on the opposite side of the color wheel



Colour Themes

Colour Themes:

Analogous or similar

Colours next to one another on the wheel

Monochromatic

One colour, or one plus black

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Colour Themes Complementary





Colour Themes Analogous





Web-Safe Colour

Some browsers use 8-bit monitors That means they can only see 256 colours Gets worse: of those, only 216 are "safe"

Across platforms, browsers, etc.

This is also a problem with newer monitors



Figure 1

Web-Safe Colour Not using web safe: you could end up with dithering

The image on the left demonstrates unwanted dithering, while that on the right shows a solid, nondithered color.





The Web-Safe Palette



 Web-safe (or browsersafe) color palette

 Tool at: www.visibone.com/colorlab



Bitmap Vs Vector files

Familiar bitmap formats: psd, pict, bmp, or Tiff

The artwork is stored in a series of values (pixels).

Vector: Illustrator, Quark Xpress, EPS and Postscript

 The artwork is stored as mathematical instructions. These are not used in the non-Flash pages.



Bitmap Vs Vector files

- Vector- look good scaled.
- Bitmap look terrible scaled.
- Vector better for line art, type, illustrations.
- Bitmap photos, soft edges, drop shadows, gradients, etc.
- Flash is the only web-based vector format that is supported by browsers, so we will be using **BITMAP** images.



Close-up of vector and bitmapped art

Kinds of bitmappped web files: JPG GIF

PNG





Web graphics

JPG – for photographs and images with continuous tone, gradients, etc.

GIF – for line art, cartoons, text, and any image with large chunks of solid color

If the artwork contains both photos and text, try both kinds of compressions, and see which works best!

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Graphics

Other terms: Dithering – good & bad (a) Image enhanced by dithering--bands are eliminated in the left-hand [©]image; (b) image ruined by dithering--flat color images should not be dithered.







Other terms:

Alias vs Antialiasing Miasing versus Anti-aliasing no anti-aliasing

smooth anti-aliasing