

Images for the Web

Image File Formats

- Web Browser Friendly

- JPG
- GIF
- PNG
- BMP
- ICO
- ...a few more

- Some Support

- PDF
- SVG

- Other Formats (not web friendly)

- TIFF
- CGM
- VML
- HEIF
- BAT
- ...hundreds more

Rules for Media on the Web...

For any media: images; sound files; video; et cetera

- The Internet is slow(ish)
- Computers are slow(ish)
- File size is important
 - Small file sizes are fast
 - Large file sizes look better
- Trade off:
 - Speed, versus...
 - High resolution

Digital Graphics Family Types

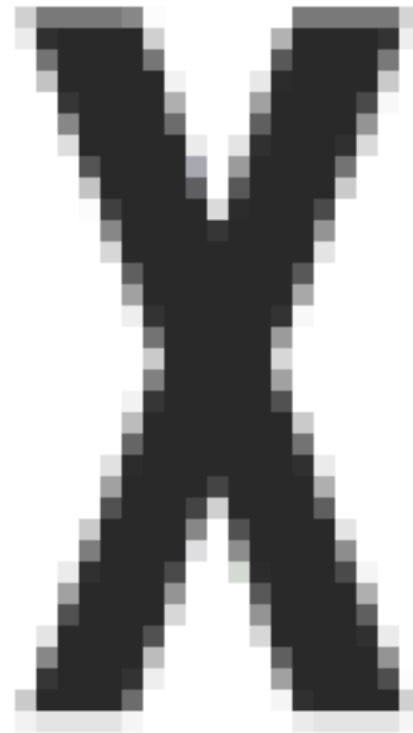
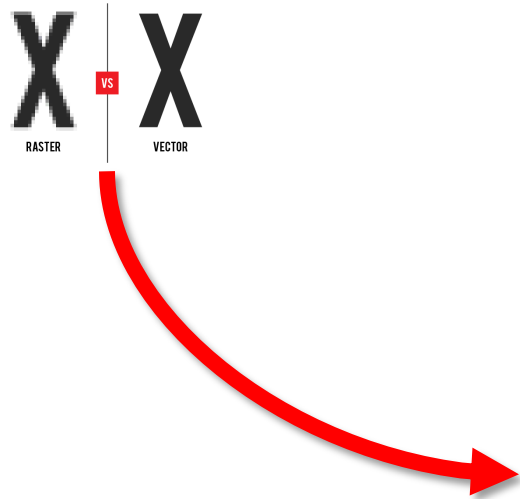
Raster (bitmaps)

- JPGs, GIFs, PNGs
- Pixels
- Detailed images
- Photographs
- Realistic
- Can be large file sizes
- Limited scalability
- Not inherently mobile-friendly

Vector (line drawings)

- SVGs
- Lines, curves, fills
- Line art
- Logos, drawings
- Simplistic
- Small file sizes
- Scalable
- Mobile-friendly

Raster vs. Vector



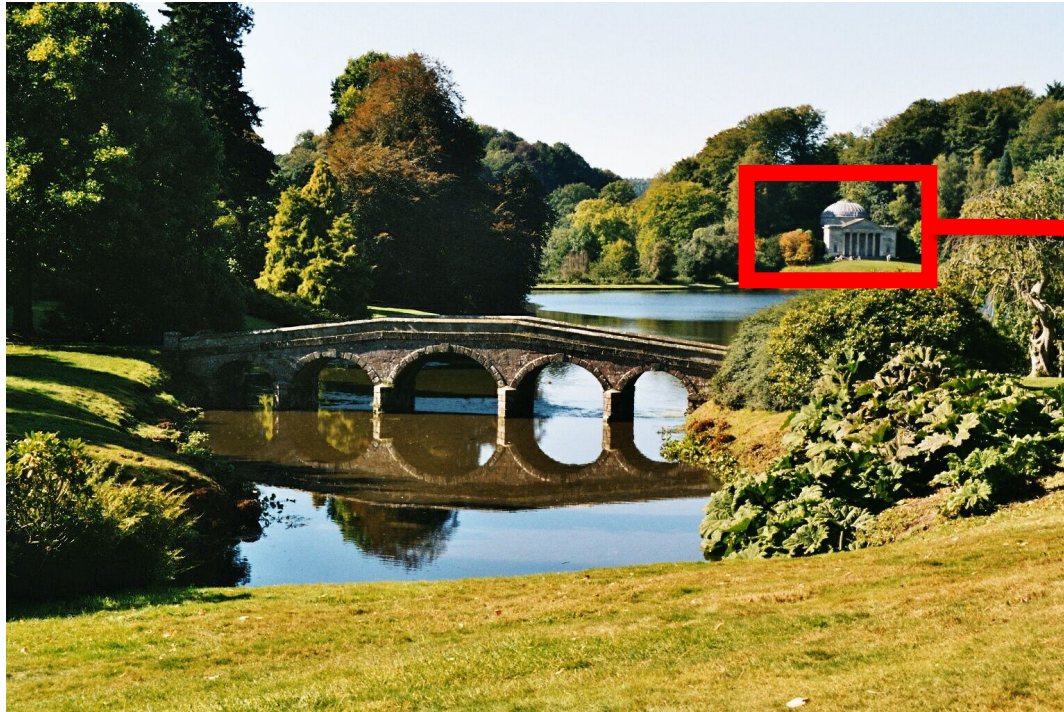
Pixilation

VS



Scalable

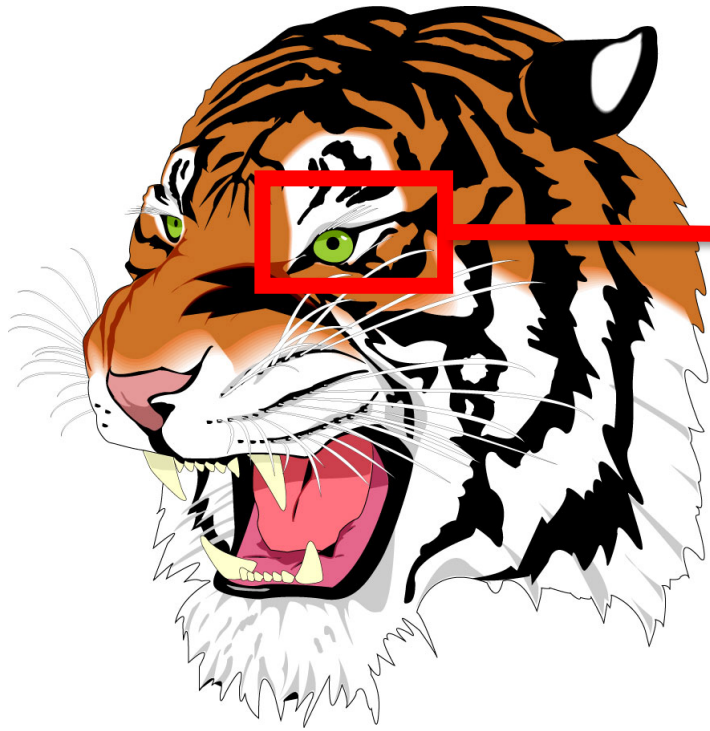
Raster (bitmap)



Pixilation



Vector



No Pixilation



File types: the big three

JPG, GIF, PNG

JPEG (.jpg)

- Joint Photographic Experts Group
- Best used for photographs
- Up to 16.7 million colors
- Uses lossy compression
- Cannot be made transparent
- Cannot be animated



GIF (.gif)

- Graphics Interchange Format
- Best used for line art and logos
- Maximum of 256 colors
- Can use a transparent color (layer)
- Uses lossless compression
- Can be animated



Background
color
configured to
be transparent



Background
color – no
transparency



PNG (.png)

- Portable Network Graphic
- Can be used for both photographs or line art and logos
- Up to 16.7 million colors
- Use lossless compression
- Can use a transparent color (layer)
- Can be animated (but not very well)
- Combines the best of GIF & JPEG
 - Doesn't compress as well as JPG (large file sizes!)



Images on Webpages

HTML vs. CSS

HTML vs. CSS

Images in HTML

- Images that are part of the content belong in the HTML
- Use the HTML:
`` element

Images in CSS

- Images used for style, decoration (eye-candy) or otherwise “not content” belong in the CSS as background images
- Use the CSS property:
`background-image: url ("...");`

HTML Image Element

- Configures graphics on a web page

```

```

- `src` Attribute
 - File name of the graphic
- `alt` Attribute
 - Configures alternate text description
- Do *not* use the `height=""` or `width=""` attributes

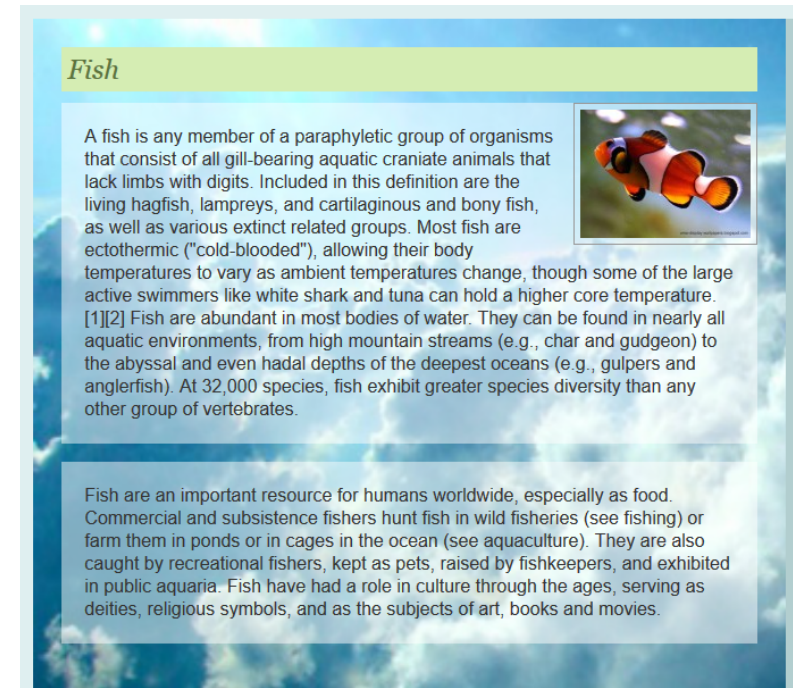


CSS background-image Property

- Configures a background-image

background-image: url(.. /images/clouds.jpg) ;

- Works with helper properties
 - background-repeat:
 - background-attachment:
 - background-position:
- ...more



Relative paths (links)

- Same directory

`Undergraduates`

- Child

`Undergraduates`

- Parent

`Home page`

- Sibling

`Home page`

