

# Responsive Images

**Due** Dec 10 by 11:59pm      **Points** 20      **Submitting** a website url  
**Available** after Nov 30 at 3pm

Create a HTML file and an external CSS file that shows responsive images using the `<picture>`, `<source>`, and `<img>` tags combined with a responsive layout driven by CSS media queries.

As the user adjusts the size of your page two things will happen:

1. The media queries in your CSS file will be altering the layout and the number of columns that appear on the page.
2. The media queries in your HTML `<source>` elements will be choosing the most appropriate size image file to load and display.

To create a proper image grid that expands as the page is adjusted, use an HTML `<ul>` plus an `<li>` element for each picture.

## Images

Download these images - [raw-images.zip](#) 

Each image needs to be re-saved and optimized for the web using either 96 or 72 dpi and saved at medium to high quality using a web optimized format

Crop and convert each image into three sizes:

Large: 800px width x 600px height - to be used when the page width is greater than 1500px.

Medium: 600px width x 450px height - to be used when the page width is between 700px and 1500px

Small: 400px width x 300px height - to be used when the page width is less than 700px

These sizes should be used in your `<source>` elements.

Use the medium size as the default for your `<img>` elements.

All your `<picture>` and `<img>` elements should be given a default max-width of 90% so that they can resize to fit their container.

## Image Attribution

Be sure to add the attribution to your images as a comment in either your CSS or HTML.

All images used belong to:

Markus Spiske - <https://500px.com/markusspiske> ↗ <https://500px.com/markusspiske>

Yinan Chen - <https://500px.com/webmaster85> ↗ <https://500px.com/webmaster85>

Fahim Akhter - <https://500px.com/fahimakhter> ↗ <https://500px.com/fahimakhter>

## Layout

In your webpage there will be 3 layouts. Use percentages to control the width of the <li> elements and the margins between them.

1. Less than 600px - one column layout
2. Between 600px and 1200px - two column layout
3. Above 1200px - four column layout

## Transitions and Transforms

Each image should have a transition and transform applied in CSS

The transition property should be your transform which must have a minimum duration of 0.2s and must specify a transition-timing-function property such as "ease-in".

You can use any tranform you wish: scale, rotate, translate etc.

The transition effect should start with a hover event over any image.

**Note: This will be demonstrated in class**

## Submission

Create a GitHub Repository called "responsive-images".

Add the gh-pages branch to the responsive-images repo.

Save your HTML file as index.html

Put your CSS file in a CSS folder and link to it from the HTML file.

Put your resized images in a folder called "img".

Add the HTML, CSS, and images to your gh-pages branch of your repo.

Submit the link to your gh-pages rendered site.

Eg: <https://abcd0001.github.io/responsive-images/index.html> ↗ (<https://abcd0001.github.io/responsive-images/index.html>)

(Change the abcd0001 to your own username)

TEST your link to make sure it works before submitting the link.

Links that return a 404 error are worth zero.

## Video Tutorials

Watch these video's for help on how to complete this assignment.

[VIDEO: Responsive Images Assignment How to add columns using media queries in CSS](#)

[VIDEO: Responsive Images Assignment Adding Transforms and Transitions in CSS](#)

### Responsive Images Rubric

Criteria	Ratings			Pts
Image Sizing	2.0 pts Images in all 3 size categories are exactly the same pixel size	0.0 pts Images in all 3 size categories are not exactly the same pixel size		2.0 pts
Image Sizes	2.0 pts Three versions of each image are created and sized as required	0.0 pts Three versions of each image are not created and sized as required		2.0 pts
Optimized	2.0 pts Images are all 96 or 72 dpi and saved at medium to high quality using a web optimized format	0.0 pts One of the optimization requirements is missing		2.0 pts
Attribution	1.0 pts Attribution for the images is added as a comment in either the CSS or HTML file	0.0 pts Attribution for the images is not added as a comment in either the CSS or HTML file		1.0 pts
Picture tags	1.0 pts Inside a ul an li tag containing a picture tag is created for each image	0.0 pts One or more of the requirements is missing		1.0 pts
srcset attributes	3.0 pts Each picture tag has 3 correct srcset attributes	1.0 pts Missing one srcset requirement	0.0 pts Missing more than one srcset requirement	3.0 pts
Default	1.0 pts Medium size images are set as default for ALL <img> elements and each <img> tag also has an alt attribute	0.0 pts Missing one requirement		1.0 pts
Maximum width	1.0 pts All <picture> and <img> elements have a default max-width of 90%	0.0 pts Missing one requirement		1.0 pts
Media queries	3.0 pts media-queries are created so that the required columns are created for the 3 required layouts: Less than 600px - one column layout, between 600px and 1200px - two column layout, above 1200px - four column layout	0.0 pts Column layout not created as required		3.0 pts
Transitions	2.0 pts A transition is created and used with each image during a hover event as required	0.0 pts Missing one requirement		2.0 pts
Transforms	2.0 pts A transform is created and used with each image during a hover event as required	0.0 pts Missing one requirement		2.0 pts
Total Points: 20.0				