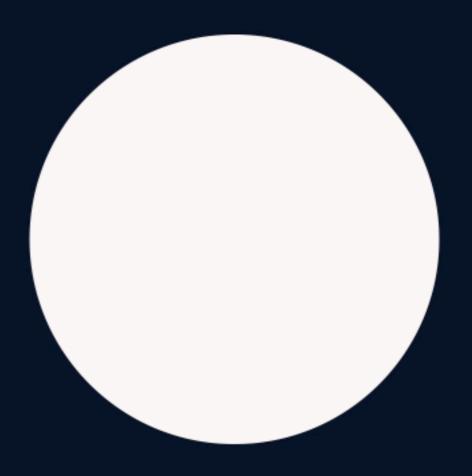
Responsive images

But first! Two things.

1. CSS animation/transitions

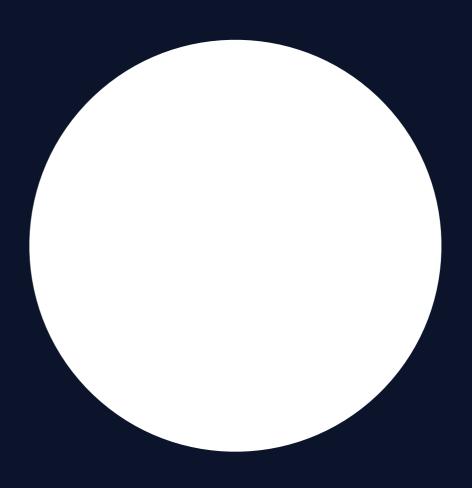
```
@keyframes grow {
  from {
    background: #fff;
    width: 300px;
    height: 300px;
    margin: -150px -150px;
    border-radius: 150px;
  to {
    background: #f30;
    width: 500px;
    height: 500px;
    margin: -250px -250px;
    border-radius: 250px;
#foo {
  position: absolute;
  top: 50%;
  left: 50%;
  background: #fff;
 width: 300px;
  height: 300px;
  margin: -150px -150px;
  border-radius: 150px;
  animation: grow infinite alternate 1s;
```





```
@keyframes grow {
  from {
    background: #fff;
    width: 300px;
    height: 300px;
    margin: -150px -150px;
    border-radius: 150px;
  to {
    background: #f30;
    width: 500px;
    height: 500px;
    margin: -250px -250px;
    border-radius: 250px;
#foo {
  position: absolute;
  top: 50%;
  left: 50%;
  background: #fff;
 width: 300px;
  height: 300px;
  margin: -150px -150px;
  border-radius: 150px;
  animation: grow infinite alternate 1s;
```





```
@-webkit-keyframes grow {
  from {
    background: #fff;
    width: 300px;
    height: 300px;
    margin: -150px -150px;
    border-radius: 150px;
  to {
    background: #f30;
    width: 500px;
    height: 500px;
    margin: -250px -250px;
    border-radius: 250px;
#foo {
  position: absolute;
  top: 50%;
  left: 50%;
  background: #fff;
  width: 300px;
  height: 300px;
  margin: -150px -150px;
  border-radius: 150px;
  animation: grow infinite alternate 1s;
  -webkit-animation: grow infinite alternate 1s;
```





2. Media queries

```
/* Mobile CSS */
#container {
  width: 100%;
@media (min-width: 481px) {
  /* Tablet CSS */
  #container {
    width: 480px;
@media (min-width: 769px) {
  /* Desktop CSS */
  #container {
    width: 550px;
```

```
/* Mobile CSS */
#container {
  width: 100%;
@media (min-width: 481px) {
  /* Tablet CSS */
  #container {
    width: 480px;
                        Responsive breakpoints
@media (min-width: 769px) {
  /* Desktop CSS */
  #container {
    width: 550px;
```

Okay, back to responsive images

One HTML treatment, multiple screen sizes



0. Just use a really big image

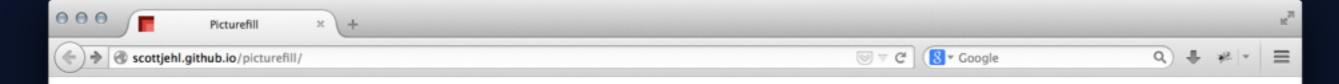
1. The srcset attribute

2. The <picture> element

How is browser support?

Allows authors to specify alternate high-resolution sources on ${\tt img}$ elements

I	Current aligned	Usage relative Firefox	Show all Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Chrome for
١.	IL.	FILETOX	Chrome	Jaiaii	Орега	103 301011	Орега імігіі	Aridroid browser	Android
П			31						
П			33						
			34					2.3	
	8		35	5.1				4	
П	9	31	36	6.1				4.1	
	10	32	37	7		7.1		4.3	
П	11	33	38	7.1	24	8	8	4.4	38
		34	39	8	25			4.4.3	
		35	40		26				
		¹ 36	41						





Picturefill

A responsive image polyfill

Download Getting Started Examples API Browser support Contributing

The <u>picture element</u> and associated features are W3C standard HTML features that allow web developers to deliver an appropriate image to every user depending on a variety of conditions like screen size, viewport size, screen resolution, and more. Picturefill is a JavaScript file (or a *polyfill* to be more specific) that enables support for the <u>picture</u> element and associated features in browsers that do not yet support them, so you can start using them today!

Picturefill is developed and maintained by filament group, with help from the members of the Responsive Images

Community Group and the developer community at large. For Picturefill version 2, a special thanks goes to Shawn

Jansepar for all his work on polyfilling the new spec.

Contributing, Bug Reports, and More information

For more information on the development of Picturefill, and how you can file bugs or contribute fixes, check out the the code project site on Github: Picturefill on Github.

Downloading Picturefill

1. Dumb browser downloads fallback

1. Dumb browser downloads fallback

2. Smart JavaScript executes, downloads again

Possible solution: remove the src attribute?

Problem: what about JavaScript disabled?

Possible solution: remove the src attribute?

Problem: browser with srcset support and JS disabled

I say just double-download the image

Resources

- Smashing Magazine
- Picturefill polyfill