Advanced CSS

# **Flexbox**

A good resource for CSS flexbox snippets:

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

A website to practice coding and implementing flexbox while playing a game:

http://www.flexboxfroggy.com

A ‘***flex***’ example to horizontally align content to the right of the flex box:

#pond {

display: flex;

justify-content: flex-end;

}

‘***justify-content***’ aligns items horizontally and accepts the following values:

* **flex-start**: Items align to the left of the container
* **flex-end**: Items align to the right of the container
* **center**: Items align at the center of the container
* **space-between**: Items display with equal spacing between them.
* **space-around**: Items display with equal spacing around them

‘***align-items***’ aligns items vertically and accepts the following values:

* **flex-start**: Items align to the top of the container
* **flex-end**: Items align to the bottom of the container
* **center**: Items align at the vertical center of the container
* **baseline**: Items display at the baseline of the container.
* **stretch**: Items are stretched to fit the container

‘***flex-direction***’ defines the direction items are placed in the container and accepts the following values:

* **row**: Items are placed the same as the text direction
* **row-reverse**: Items are placed opposite to the text direction
* **column**: Items are placed top to bottom
* **column-reverse**: Items are placed bottom to top

‘***flex-wrap***’ spreads items out on a single row:

* **nowrap**: Every item is fit to a single line.
* **wrap**: items wrap around to additional lines
* **wrap-reverse**: items wrap around to additional lines in reverese.

**#Note:** When setting the direction to a reversed row or column, **the start and end are also reversed**.

**#Note:** When the flex direction is a column, **‘*justify-content*’ changes to vertical, and ‘*align-items*’ to horizontal.**

We can change the ‘***order***’ of elements by applying the ‘***order***’ property. By default, items have a value of 0. But, we can use this property to also set it to a positive or negative integer value (-2, --1, 0 , 1, 2).

#pond {

display: flex;

}

.yellow {

order: 1;

}

Another property you can apply to individual items is “***align-self***”. This property accepts the same values as “***align-items***” and its value for the specific item.

#pond {

display: flex;

}

.yellow {

align-self: flex-end;

}

The two properties ‘***flex-direction***’ and ‘**flex-wrap**‘are used so often together that the shorthand property, ‘**flex-flow**’ was created to combine them. This shorthand property accepts the value of one of the two properties separated by a space:

#pond {

display: flex;

flex-flow: column wrap;

}

You can use ‘***align-content***’ to set how multiple lines are spaced apart from each other. This property takes the following values:

* **flex-start:** lines are packed at the tope eof the container.
* **flex-end:** lines are packed at the bottom of the container.
* **center:** lines are packed at the vertical center of the container.
* **space-between:** lines display with equal spacing between them.
* **space-around:** line display with equal spacing around them.
* **stretch:** lines are stretched to fit the container.

**#Note:** This can be confusing, but ‘***align-content***’ determines the spacing between lines, while ‘**align-items’** determines how the items as a whole are aligned within the container. **When there is only one line, ‘*align-content*’ has no effect:**

#pond {

display: flex;

flex-wrap: wrap;

align-content: flex-start;

}

### Animations: Transitions and Transforms

**Transforms move or change the appearance of an element**, while **transitions make the element smoothly and gradually change** from one state to another.

Example:

img {

width: 400px;

height: 400px;

margin: 10px;

/\* Transition property and duration \*/

transition: all 1s;

}

img:hover {

transform: scale(1.5);

}

### Cross Browser Compatibility

Check on W3Schools.com for a reference to browser compatibility:

https://www.w3schools.com/cssref/css3\_browsersupport.asp

May need to use a ‘prefix’ on the CSS property for certain browsers.

Another site to check for compatibility is Can I Use:

http://www.caniuse.com/