The CSS Box Model

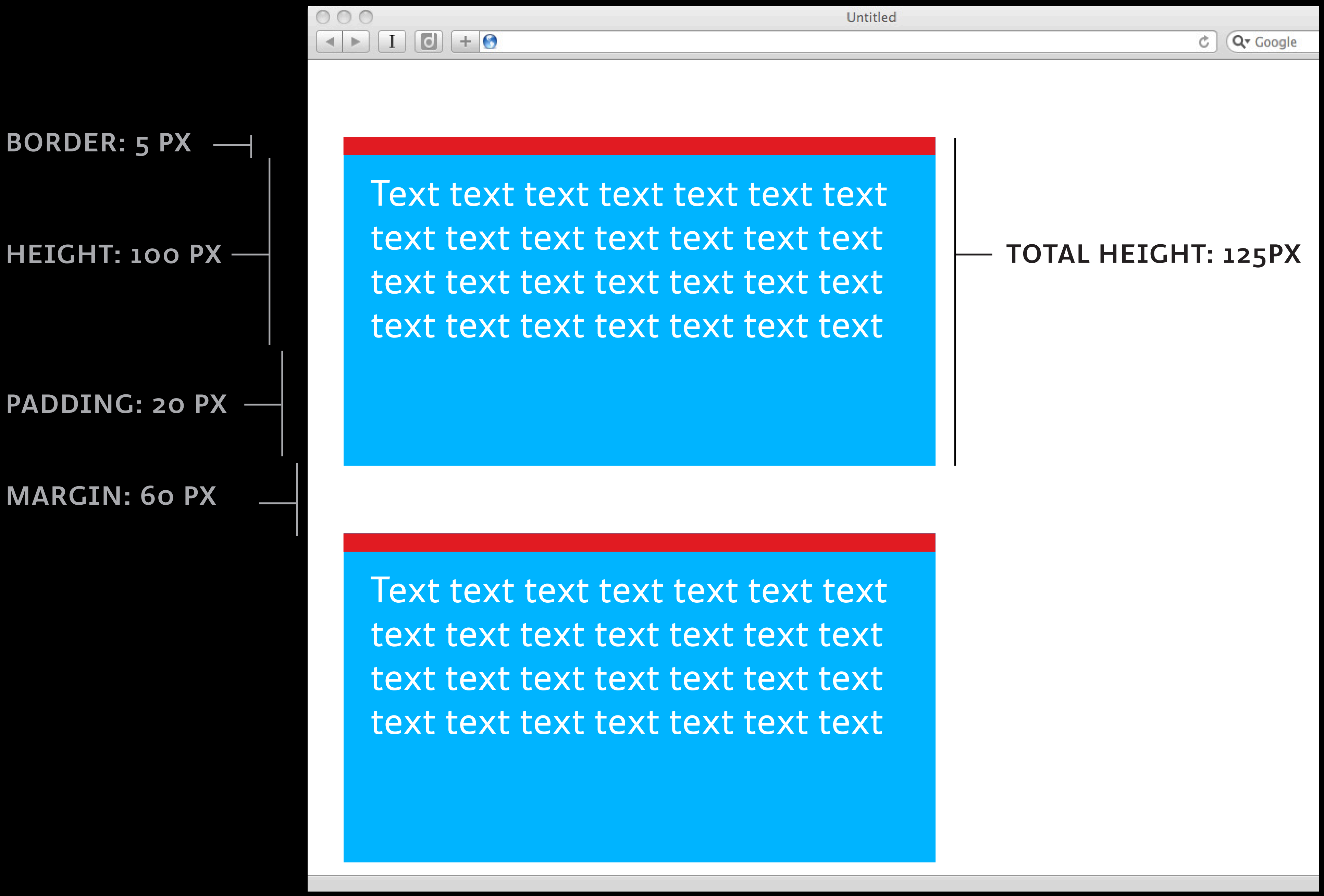
It’s All Boxes

Every element in HTML can be thought of as a box when being styled in CSS.

There are four key CSS properties that relate to the box model directly:

- **width/height**
- **padding**
- **border**
- **margin**

Example: styling paragraphs



BORDER: 5 PX

HEIGHT: 100 PX

PADDING: 20 PX

MARGIN: 60 PX

TOTAL HEIGHT: 125PX

Text text text text text text text text text text text text text text text text text text text text text text text text text text text text

Text text text text text text text text text text text text text text text text text text text text text text text text text text text text

Width/Height

Think of `width` and `height` as the “starting size” of your element’s box.

NOTES

- **Width takes a single value, but all sorts of units: px is simplest but em and % are useful in “fluid” layouts (where the layout changes based on window width or the font-size chosen by the user.**
- **You can leave width or height undeclared: if so, the element expands horizontally to fill its container and vertically as far as the content extends.**

Border

Borders go *outside* the content of the box and outside of the padding. They expand the box's total size: a `div` styled with `width:100px;` and `border-left: 100px solid red;` will take up *200* pixels of horizontal space.

NOTES

- **You can define the border-color, border-style, and border-width properties separately, but usually it's easier to do it all at once:** `border: 5px dotted #555;`

Padding

Padding expands the area around the content but *inside* its border (and background-color). Padding also expands the total dimensions of the box.

NOTES

- **If you don’t declare a width on your element, the width will remain 100% in width and the padding and border will push inwards instead of outward. This is pretty much the only exception to the usual box model.**

Margin

Margin does *not* affect the size of the box itself — instead it pushes other content away from the box.

NOTES

- **For manageable typography, try applying only margin-top (or only margins-bottom) to your headers, paragraphs, and lists. This makes the spacing between various elements easier to predict and control.**
- **Vertical margins of consecutive elements will "collapse" — only the larger of the two values will be used. Horizontal margins never collapse.**

Inline vs. Block

We tend to use `div` and `p` tags — both block-level elements— when demonstrating the box model. But inline elements —like `span` and `a` — are also boxes: you can think of them as skinny boxes that wrap over every line. You can add borders, padding, and margins to them without any problems.

The key difference is that you usually can't define width and height for inline elements.

Further Reading

- http://www.brainjar.com/css/positioning/
- http://css-tricks.com/the-css-box-model/