

# Starting With The Basics

This section of text belongs to the title above. I can write a whole bunch of text here. This is equivalent to a paragraph environment!

## First Subheader

This section is a lot like an `h2` tag in HTML. The header is just a bit smaller, as it is a sub-section to Starting With The Basics.

## Second Subheader

This section is also a subheader to Starting With The Basics section!

### First Sub-Subheader

I belong to the second subheader listed above!

## Let's Show Some Code

Let's show off embedded code blocks in Markdown. We have shown `inline` code earlier in this document, but no blocks yet!

I can use a code block to show off monospaced text. This will preserve the structure of code, and make it far easier to display.

```
| | | / _ _ _ | | | | / _ _ _ _ _ _ \ \ \ / / | | | | | | |
| | | \ _ _ \ | | | | \ _ _ \ | | | \ \ \ / \ / / |
| | | | _ _ ) | | | | _ _ ) | | | | \ v v / | _ |
| _ _ / | _ _ _ / \ _ _ / | _ _ _ / \ _ _ / ( _ )
```

I can write a Python code within a code block. Dependent on the Markdown processor, I can get Python syntax highlighting!

```
def factorial(n):
    if n <= 1:
        return 1
    return factorial(n-1) * n
```

Similarly, I can get Haskell syntax highlighting, if the parser supports it.

```
factorial :: Integer -> Integer
factorial n
  | n > 1 = n * factorial(n - 1)
  | otherwise = 1
```

## Let's Make A Link!

Click Me! You can trust me. You know I'd never let you down.

## Let's Add A Photo!

We will embed a photo in this section.



Quite easy to do, if I were to say so myself!

## Let's Use GitHub Flavored Markdown!

If this is processed only as normal Markdown, I might not have all the features of Markdown on the web that I might be used to. To do this, I change `--from markdown` to `--from gfm` to tell `pandoc` to parse my file as GitHub Flavored Markdown (GFM) instead of normal Markdown.

## Lists!

Lists are incredibly easy to do in Markdown!

0. Let's do an ordered list!
1. Let's add another item!
  - a. Oooh, a subitem! WOW!
  - b. A second subitem? Now we're just showing off...
2. Yeah, you get the gist.

There's many different types of lists too.

- You can also do bulleted lists.
- This is quite handy.
  - You can even do subpoints on bulleted lists!

Lists can also have paragraphs, code, and quotes interjected!

- Let's see a paragraph! I can have some text *here*! This is a paragraph environment that is inside the list.
- Let's see some code! I can do some `in-line` code just like I would in a paragraph environment! **However**, I could also do *this*...

```
def helloThere():  
    print("General Kenobi!")
```

## Quotes

We can easily add quotes to Markdown, too!

Do or do not, there is no try. -Yoda

## Tables

Header	Header 2
Cell 1	Cell 2
Cell 3	Cell 4

## Math!

Let's try adding some math! Do you recognize this formula?  $a^2 + b^2 = c^2$ .

$$a_0 := 1$$

$$a_1 := 1$$

$$a_n = a_{n-1} + a_{n-2}$$

## Matrices!

Will we be able to use a LaTeX environment that does *not* come standard with LaTeX? This `\bmatrix` environment doesn't come standard with LaTeX, and you must access it with `\usepackage` and the `\amsmath` package.

$$\begin{bmatrix} a & b & c & d \\ b & c & d & e \\ c & d & e & f \\ d & e & f & g \end{bmatrix}$$