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!

```python
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.

```haskell
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 bulletted 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.

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