

Using the Table

Yes It Really Is Useful...

The Low Down

- The horizontal rows (going across) are called periods.
- Each period also signals an increase in energy levels...
- Remember: How many electrons does it take to fill up the first energy level?
- That's why only H and He are in the first period.

The High Up

- The vertical columns are called groups (or sometimes families)
- Some of the groups are given names, such as the Noble Gases for Group 18.
- In fact, groups are going to be able to tell us very quickly the number of valence electrons.

But what about the rest...

- One the table there is something called the Main Group Elements...
- The main groups are: 1, 2, 13, 14, 15, 16, 17, and 18.
- The second number of the group number, is the number of valence electrons.

What else can we see?

- The elements are also classified:
- Metals, Non-Metals, and Metalloids
- Metals make up most of the Table...
- Groups 3-12 (called the transition elements) are all metals, and so are many other elements.

Ok...Non-Metals

- Non-Metals make up the upper right hand side of the table
- Many of them are gaseous at room temperature
- All of the Noble gases are Non-Metals

So what is a Metalloid?

- Metalloids are in between the metals and the non-metals, and have properties of both...
- Metals will conduct electricity, non-metals won't, and metalloids will a little bit.
- Many semi-conductors are metalloids.