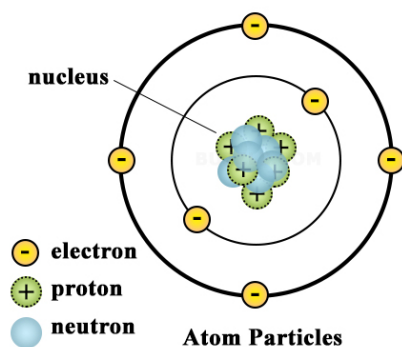


## Atoms Basics Notes



**Atom** - The smallest particle of an element that has the properties of that element.

**Atomic Mass** - The mass of an atom. This is the number of protons and neutrons, and is measured in atomic mass units (AMUs)

**Atomic Number** - The number of protons in the nucleus of an atom.

**Electron** - A very small subatomic particle with a negative charge that travels in orbitals, or clouds, outside of the nucleus of the atom. It has 0 AMUs.

**Element** - One of 118 fundamental substances that cannot be separated into simpler substances by chemical means.

**Neutron** - A subatomic particle with no charge, 1 AMU, that is found in the nucleus of atoms.

**Nucleus** - The central part of an atom that contains protons and usually neutrons.

**Orbitals** - The regions around an atom in which electrons are most likely to be found.

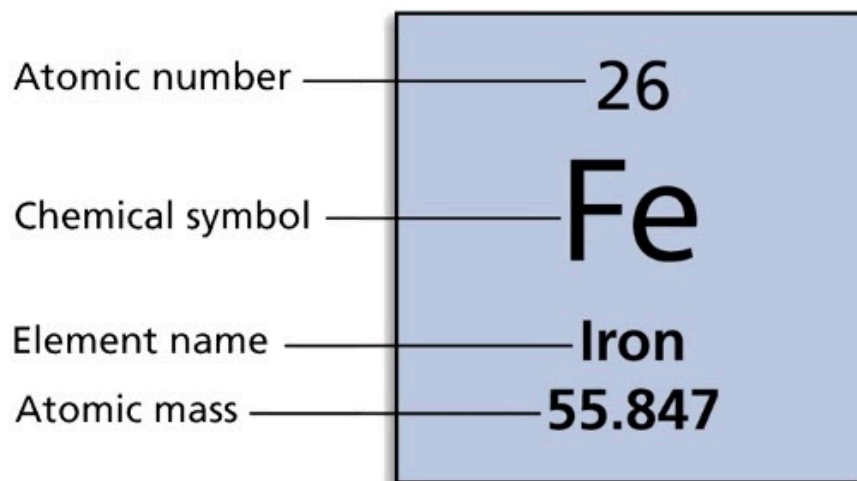
**Periodic Table** - A table that arranges the elements by their atomic numbers, and has elements grouped together according to common properties.

**Protons** - A subatomic particle with a positive charge, 1 AMU, that is found in the nucleus of atoms.

## Atoms Basics Notes

### Finding Data on Elements

Each square of the periodic table includes an element's atomic number, chemical symbol, name, and atomic mass.



### Basic Notes on Reading the Periodic Table

- The **number of protons** is represented by the **atomic number**.
- The **number of electrons** is **equal to the number of protons** in a neutral atom. (For now, we will only be looking at neutral atoms).
- The **number of neutrons** is found by subtracting the atomic number from the atomic mass.
- To determine the **most common atomic mass**, round the atomic mass to the nearest whole number.
  - Atomic mass can vary because the number of neutrons in the nucleus can vary without changing the identity of the atom. The mass on the periodic table is a weighted average of the different versions of the atom, called **isotopes**.