Name_____Class_____Date_____

THE PERIODIC TABLE

1. An element is a substance made of only **one** kind of atom.

2. There are **92** kinds of elements. The lightest element is **H or hydrogen**

3. The periodic table has **7** rows or periods.

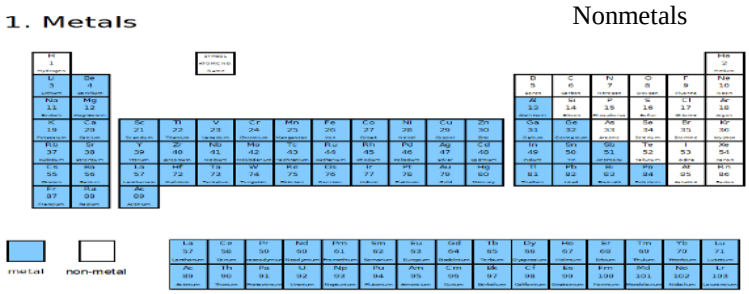
4. Altogether there are **118** elements so far. Elements 93-118 are artificial elements that were made in a **lab**

5. The vertical columns are called **groups.** There are **18** groups.

6. The key point about groups is that they contain elements that are **similar** to each other.

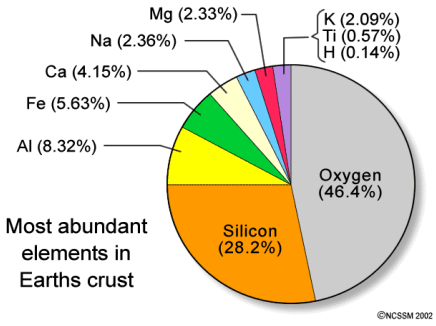
7. The grey diagonal band on the periodic table splits the elements into **metals** (located on the left) and **nonmetals** (located on the right).

- **Metals** are **shiny, solid** (except for liquid Mercury), and they **conduct** *electricity and heat*. They are also **malleable** , meaning they will flatten into a thinner shape.
- **Nonmetals** are opposite of metals. They **don't** conduct electricity, they are ***brittle*** and will smash into bits, which is the opposite of malleable.



8. Of the elements inside the diagonal band, Si is shiny like a **metal** but *brittle* like a **nonmetal.** The dull glow of the bulb shows that it conducts electricity more than the nonmetal but not as much as a metal. These can be called **semiconductors** or semi-metals because they can have properties that fall between metals and nonmetals. These are also called **metalloids**.

9. There are **more** metals than nonmetals, but that doesn't mean they are more **abundant** on Earth. In the Earth's crust, there are more **oxygen** and Silicon atoms than the rest of the atoms combined. The universe as a whole is made mostly **H.**



10. Hydrogen is to the left of the diagonal, but it is **NOT** a metal. It cannot be a metal because it is a **gas.** Hydrogen doesn't belong to any group.