Chapter 2 Notes

1. Who is credited with the development of the modern Periodic Table? MENDELEEV

2. How are elements arranged? BY INCREASING ATOMIC NUMBER

3. What do we call the columns in the periodic table? GROUPS OR FAMILIES

4. What do we call the rows in the periodic table? PERIODS

5. What does a chemical symbol represent? AN ELEMENT

6. What are the three classes of elements? METALS, NONMETALS, & METALLOIDS

7. Complete each statement:

Metals - Good conductors of ELECTRICITY *and* HEAT.

They are shiny, DUCTILE*, and malleable.*

Nonmetals - Do not conduct ELECTRICITY *and are poor conductors of* HEAT.

Metalloids - Have some properties of METALS *and some of* NONMETALS.

Some are called SEMICONDUCTORS *because they can conduct electricity at certain temperatures.*

8. What determines an element's reactivity? THE NUMBER OF VALENCE ELECTRONS

9. Identify each family of elements based on the clues.

ALKALINE EARTH METALS	- Have 2 valence e-, all are solids at room temperature, and very reactive
BORON FAMILY	- Contains 1 metalloid and four metals; have 3 valence e-
NOBLE GASES	- Have full outer shells and are all colorless, odorless gases
CARBON FAMILY	- Contains 1 nonmetal, 2 metalloids, and 2 metals; have 4 valence e-
OXYGEN FAMILY	- Have 6 valence e-; one reacts with metals to form rust
ALKALI METALS	- Have 1 valence e-; highly reactive metals
NITROGEN FAMILY	- Contains 2 nonmetals, 2 metalloids, and 1 metal; have 5 valence e-
HALIDES (or Halogens)	- Highly reactive nonmetals with 7 valence e-
TRANSITION METALS	- Includes groups 3-12 and includes the La & Sc series below the table