

## Periodic Table Notes

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Metals Nonmetals and Metalloids

**The Periodic Table is organized in many ways:**

- By increasing atomic number from left to right = \_\_\_\_\_
- Into **metals** = left and below the stairs
- Into **nonmetals** = right and above the stairs
- Into **metalloids** = on the stairs
- Into **columns** (groups or families) = \_\_\_\_\_
- Into **rows** (periods) = \_\_\_\_\_

**Metals:**

- Make up the majority of the elements
- Are usually Solids at room temperature but...
- Exist as individual atoms **NOT** \_\_\_\_\_

e.g.

**Physical Properties**

- Shiny/lustrous
- Hard
- Malleable
- Ductile
- High melting points
- Conduct heat energy
- Conduct electrical energy

## Chemical Properties

React by \_\_\_\_\_ electrons to form

\_\_\_\_\_ called

\_\_\_\_\_.

e.g.

- React with Acids to form \_\_\_\_\_ and \_\_\_\_\_.

e.g.

- React with Oxygen to form \_\_\_\_\_.

e.g.

## Nonmetals

- Can be Solids, Liquids or Gases

### Physical Properties

- Are dull in appearance
- Are friable (brittle)
- Usually have low melting points
- Do not conduct electricity or heat energy

## Chemical Properties

React by \_\_\_\_\_ electrons to form \_\_\_\_\_

\_\_\_\_\_ called \_\_\_\_\_.

e.g.

React by \_\_\_\_\_ electrons to form \_\_\_\_\_

bonds with other nonmetals.

e.g.

- React with Oxygen to form \_\_\_\_\_

## Families of the Periodic Table

- Families are groups or columns
- Families have characteristics in common just like you and your family

**4 main families you are responsible for:**

**Group 1A** \_\_\_\_\_

- React violently with water to form \_\_\_\_\_ and \_\_\_\_\_  
\_\_\_\_\_
- React with Group VII A to form \_\_\_\_\_

**Group II A** \_\_\_\_\_

- Are found in the Earth's \_\_\_\_\_
- Form \_\_\_\_\_

**Group VII** \_\_\_\_\_

- The name means \_\_\_\_\_
- the most reactive \_\_\_\_\_
- Are great at \_\_\_\_\_

**Group VIII A** \_\_\_\_\_ or \_\_\_\_\_

- The Nobility of the PT—everyone wants 2 val e<sup>-</sup> or 8 val e<sup>-</sup>