



Topic/Objective CHAPTER: 3

NAME:

Pd: 1 2 4 5 other

DATE

10  
10/19

Essential Question

# Chemistry pt 4

Cue: Review:

Thoughts: Main Idea

NOTE Taking AREA:

## Atom

- ↳ basic building block of matter
- e.g. Oxygen

## Molecule

- ↳ are 2 or more Atoms <sup>chemically bonded</sup> combined
- e.g.  $O_2$  ⇒ is still oxygen but there are 2

## Types of molecules

- ↳ 2 ways (types)

### homoatomic molecule      Heteroatomic Molecule

- ↳ molecule made up of the same element

e.g.  $O_2$  we breathe  
 $O_3$  ozone

- ↳ molecule made up of different elements

e.g.  $H_2O$

## Types of Bonds

### Ionic Bonds

- ↳ attractive force b/t 2 ions of opposite charges

Transfer  $\rightarrow$   $\equiv$

### Covalent Bonds

- ↳ attraction of 2 atoms for a shared pair of electrons

- ↳ have shape

See

WS 8  
Covalent  
Ionic  
Bonds

### Metallic Bond

- ↳ t<sup>ion</sup> of a metal is attracted to metal

### Hydrogen bond

- ↳ F, Cl, Br, I, At
- ↳ very explosive.

NOTES CONTINUE ON OTHER SIDE



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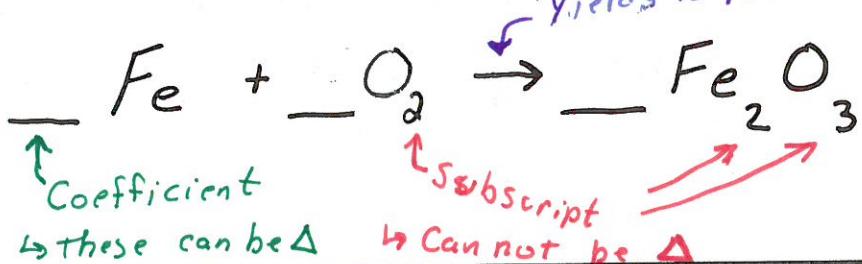
NOTE Taking AREA:

## Elements

- ↳ is a **pure substance** made of **only 1 kind of Atom.**
- e.g. See Periodic table 92 natural elements.
- ↳ **Cannot be broken down into a simpler substances by physical or chemical means.**

## Compound

- define \*
- ↳ is **2 or more different elements held together chemically**
- e.g.
- ↳ have different properties from the elements of which they are composed.
- ↳ represented by chemical formulas that include the symbols for each element followed by a subscript number showing the # of atoms of that element in the compound



## Chemical formula

- Balance equations:
- 1) Both sides from the Arrow **MUST =**
  - 2) Can ONLY **Δ** the Coefficient =
  - 3) NEVER **Δ** Subscript #  
IF There is **NO #** insert **1**
  - 4) Balance H and O Last

W.S. Identifying the substance

W.S. Analyzing the substance AGAIN