

## METALS

- conductors of heat + electricity
- most are solids at room temp - except Hg -
- luster - shine of a metal
- malleable - able to be hammered into thin sheets
- ductile - pulled into thin wires
- most are found in "ore" - rock + metal

$m + nm \rightarrow \text{salt}$

$m + nm \rightarrow \text{ionic bond}$

$m + O_2 \rightarrow \text{metal oxide}$

## Nonmetals

- poor conductors of heat + electricity
- made up of solids, liquids + gases (at room temp)
- no luster
- Solids are brittle (shatter easily)
- not ductile
- $m + nm \rightarrow \text{ionic compound}$
- $nm + nm \rightarrow \text{covalent compounds}$

## PTE TRENDS -

- the most reactive metals are found at the bottom of a group
- the most reactive nm's are found at the top of the group (F is the most reactive nonmetal)
- as you go across the PTE atomic radius decreases
  - why? shell fills with  $e^-$  + nucleus "pulls" harder
- as you go down a group - atomic radius increases
  - why? more electron shells - therefore the valence electrons are farther from the nucleus