

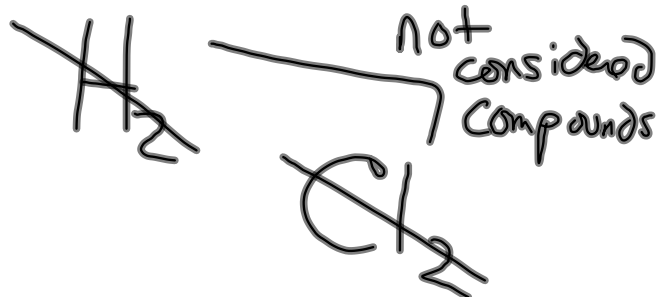
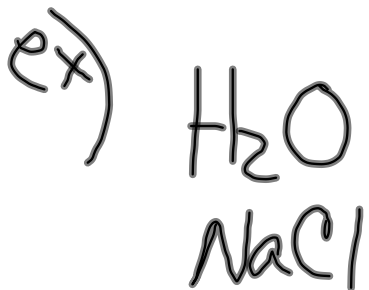
# Dalton's Billiard Ball Model



- solid
- spherical
- one particle
- indivisible

\* 3 changes to Dalton's model over the last 200yrs

Compound - 2 or  
more atoms of different  
elements that are  
chemically combined.



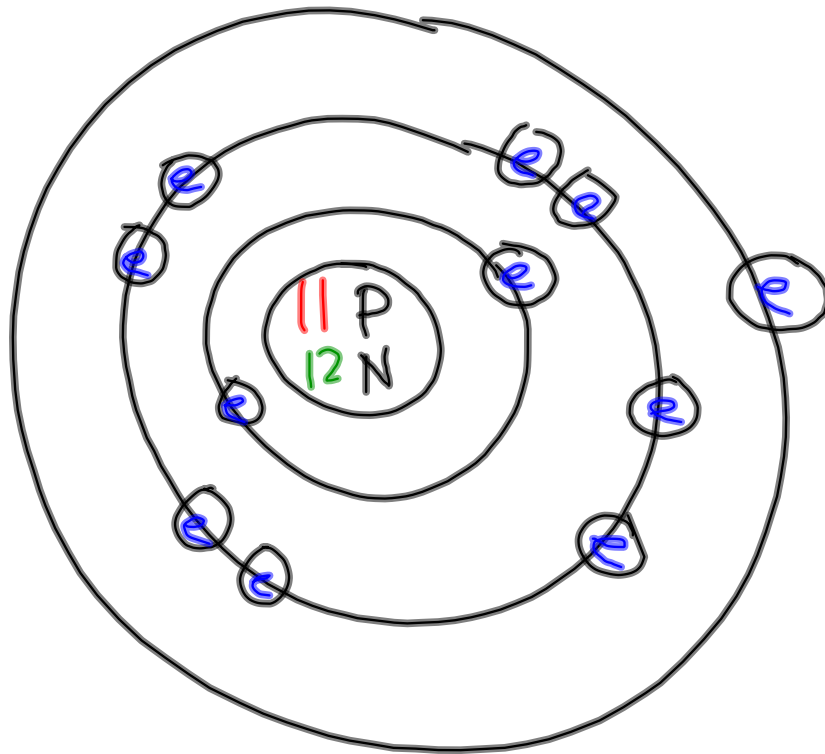
Atoms of elements  
combine to form molecules  
of compounds that  
make up all of the  
matter around us.

atom - the smallest  
part of an element

molecule - the  
smallest part  
of a  
compound

Na

~~11+~~  
~~11-~~



11 Protons\*  
12 neutrons  
11 electrons

the diameter of an atom can be  
up to  $100,000 \times$  the diameter of  
nucleus..

 diameter - 7 cm

$d_{\text{nucleus}} = 7 \text{ cm}$  nucleus of  
atom A

$d_{\text{atom}} = 700,000 \text{ cm}$   
 $7,000 \text{ m} \Rightarrow 7 \text{ km}$