

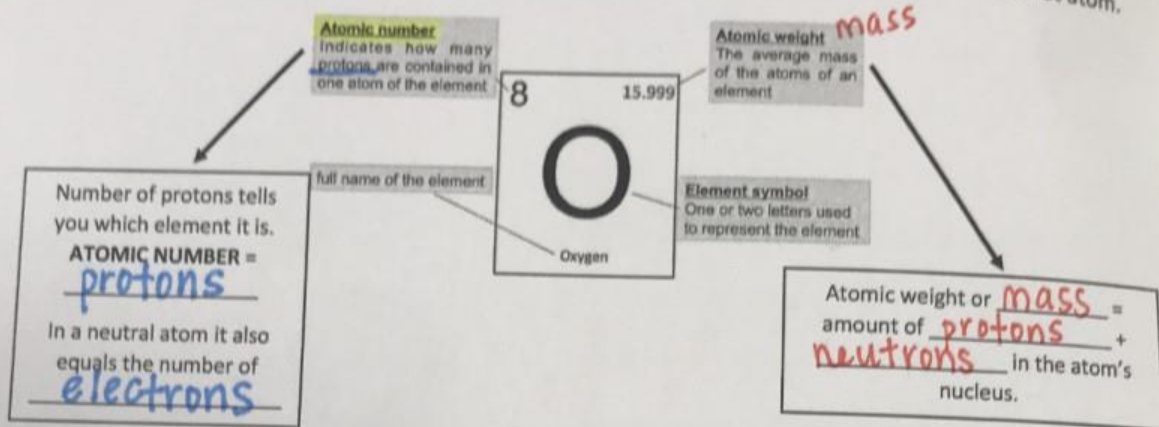
Entry 22

Jan 6

Reading the Periodic Table

\longleftrightarrow horizontal rows are called periods
 \updownarrow vertical columns are called groups

Each box in the periodic table represents a type of atom and contains information about that atom.



The elements in the periodic table are arranged by increasing number of protons

Use the periodic table to answer the following questions:

1. What is the element symbol for neon?
2. Which element has more protons: Calcium or Magnesium?
3. What the name of the element that has the symbol W?
4. What is the atomic weight of an atom of Gold?
5. True or False: Potassium and Nickel are in the same group

Ne
Calcium / Ca
Tungsten
197
false

Let's identify the following information about **NITROGEN**:

Symbol: N
 Atomic Mass: 14
 Atomic Number: 7
 Number of PROTONS: 7
 Number of NEUTRONS: 7
 Number of ELECTRONS: 7

mass-protons (with arrow pointing to Neutrons)

Phosphorous

Symbol	P
mass	31
atomic #	15
p	15
n	16
e	15

mass = 31
p

Krypton

Symbol	Kr
mass	84
atomic #	36
p	36
n	48
e	36

Atomic Structure

Atomic structure facts and symbols to know...

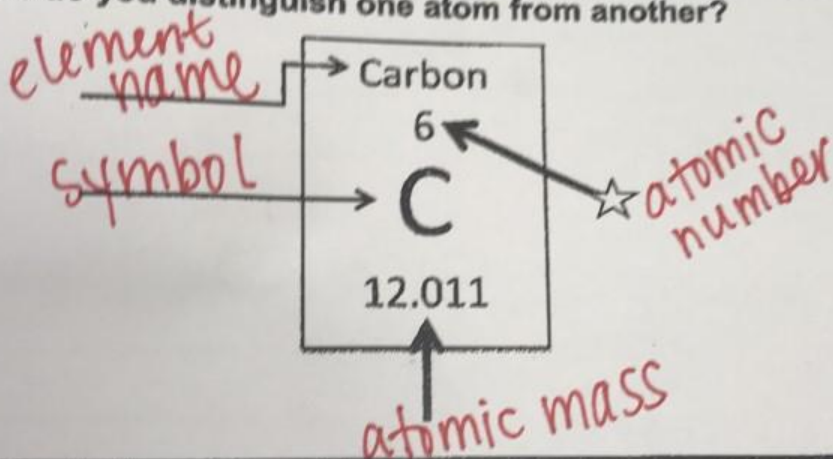
p^+ = proton

e^- = electron

n^0 = neutron

Particle	Mass (kg)	Charge	Location in the atom
p^+	1.67×10^{-24}	+	nucleus
e^-	9.11×10^{-28} <i>smallest!</i>	-	orbiting the nucleus
n^0	1.67×10^{-24}	0	nucleus

How do you distinguish one atom from another?



Here's a mnemonic to help you remember:

$A = P = E$
 atomic number = protons = electrons

$M = A - N$
 mass = atomic number - neutrons

Do: Determine the number of each type of subatomic particle for oxygen.

Oxygen
8
O
15.999

$p^+ = 8$

$n^0 = 8$

$e^- = 8$

mass = $p^+ + n^0$