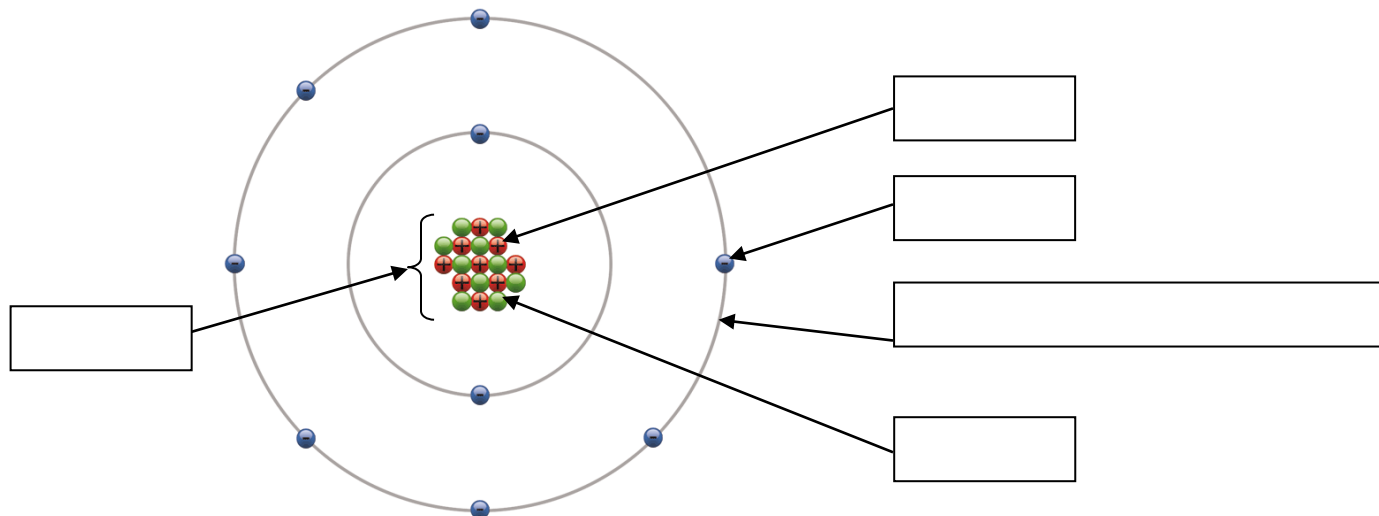


Name: _____

Date: _____

Lesson 3A The Periodic Table (Nelson p.164-165)

Parts of an Atom



Name	Electrical Charge	Symbol	Location
Proton			
Neutron			
Electron			

- Atoms are the _____ particle of matter.
- Most of the mass of an atom is found in _____.
- Since atoms have the _____ number of protons and electrons, the number of positive charges _____ the number of negative charges. The opposite charges _____ each other out.

Important Key Terms

Atomic Number: _____
in the element

6	←	Atomic Number
C	←	Chemical Symbol
12.01	←	Atomic Mass

Atomic Mass: _____ of all natural isotopes of an element by their abundance.

Mass Number:

- _____ + _____ of an element
- _____ the Atomic Mass to the nearest _____

Element Symbol:

- Symbol consists of **1 or 2 letters**.

The **1st letter** is always **capitalized**, the **2nd letter** is always **not capitalized**.

e.g. Na (sodium) Cl (chlorine) Pb (lead)

Use your Periodic Table to complete the following list.

Atomic Number	Element Symbol	Element Name
1	H	
2	He	
3		lithium
4		beryllium
5		boron
6	C	
7		nitrogen
8	O	
9	F	
10		neon
11		sodium
12	Mg	
13		aluminum
14	Si	
15		phosphorus
16	S	
17	Cl	
18		argon
19		potassium
20		calcium

Modern Periodic Table

- Most elements are arranged by _____.
- The element can be classified as:
 1. _____ (left-side)
 2. _____ (right-side)
 3. _____ (step-like line that divides metals from non-metals)

(Use different colours to indicate the location of Metals, Non-metals and Metalloids)

Metal, Nonmetals, Metalloids																						
1 IA																	18 VIIIA					
1	H	2 IIA											13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	He	1			
2	Li	Be											B	C	N	O	F	Ne	2			
3	Na	Mg	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	VIII			8	9	10	11 IB	12 IIB	Al	Si	P	S	Cl	Ar	3
4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	4			
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	5			
6	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	6			
7	Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt										7			
6																						
6	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				6				
7																						
7	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr				7				

 Metals

 Nonmetals

 Metalloids

Chemical Groups and Periods

- _____ : arranged in **columns**
- _____ : arranged in **horizontal row**
- **Group 1** elements (except hydrogen): _____
- **Group 2** elements: _____
- **Group 17** elements: _____
- **Group 18** elements: _____

Chemical Groups (Families)																						
1 IA																	18 VIIIA					
1	H	2 IIA											13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	He	1			
2	Li	Be											B	C	N	O	F	Ne	2			
3	Na	Mg	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	VIII			8	9	10	11 IB	12 IIB	Al	Si	P	S	Cl	Ar	3
4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	4			
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	5			
6	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	6			
7	Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt										7			
6																						
6	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				6				
7																						
7	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr				7				

 Alkali Metals

 Alkaline Earth Metals

 Halogens

 Noble Gases

 Hydrogen