

**Valence electrons notes/worksheet**  
**Chemistry**

**Notes:**

*Valence electrons:*

Write full electron configurations for:

Be:

Mg:

Ca:

Write noble gas shorthand electron configurations for:

As:

Sb:

Bi:

How many valence electrons in each d-block element?

V:

Co:

What do you notice about elements in the same group?

The Periodic Table of the Elements																	
1 H Hydrogen	2 He Helium	3 Li Lithium	4 Be Boron	5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	10 Ne Noble Gas	11 Na Sodium	12 Mg Magnesium	13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Noble Gas
19 K Potassium	20 Ca Calcium	21 Sc Scandium	22 Ti Titanium	23 Cr Chromium	24 Mn Manganese	25 Fe Iron	26 Co Cobalt	27 Ni Nickel	28 Cu Copper	29 Zn Zinc	30 Ga Gallium	31 Ge Germanium	32 As Arsenic	33 Se Selenium	34 Br Bromine	35 Kr Krypton	
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Os Osmium	46 Rh Rhodium	47 Pd Palladium	48 Ag Silver	49 Cd Cadmium	50 In Indium	51 Sn Tin	52 Sb Antimony	53 Te Tellurium	54 Xe Xenon
55 Cs Cesium	56 Ba Barium	57 La Lanthanum	58 Hf Hafnium	59 Ta Tantalum	60 W Tungsten	61 Os Osmium	62 Ir Iridium	63 Pt Platinum	64 Au Gold	65 Hg Mercury	66 Tl Thallium	67 Pb Lead	68 Bi Bismuth	69 Po Polonium	70 At Astatine	71 Rn Radon	
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Rf Rutherfordium	91 Db Dubnium	92 Sg Sovietium	93 Bh Bohrium	94 Hs Hassium	95 Mt Meitnerium	96 Nh Nhastium	97 Ts Tsingonium	98 Og Oganesson	99 Ho Holmium	100 Er Erbium	101 Tm Thulium	102 Yb Ytterbium	103 Lu Lutetium	
58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium				
90 Tb Thulium	91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Bk Berkelium	100 Cf Californium	101 Es Einsteinium	102 Fm Fermium	103 Md Mendelevium	104 No Neptunium	105 Lr Lawrencium		

## Lewis Structures

### Your practice...

1. How many valence electrons do each of the elements have?

a. Be	e. V	i. At	m. Te
b. S	f. Ar	j. Rb	n. P
c. C	g. Ge	k. Na	o. Ne
d. Ti	h. Al	l. Zn	p. F
  
2. Write out electron configurations (full or shorthand) for the following elements and CIRCLE the valence electrons (you will have to do this on your test!)

a. B
b. Se
c. Sr
d. Mn
e. Pb
f. Br
g. Ar
h. Os
i. Sn
  
3. Draw Lewis Structures for elements #1-18