

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																			
H																		He	
1	2																	3	4
Li	Be																	B	C
5	6																	7	8
N	O																	9	10
F	Ne																	11	12
Na	Mg																	13	14
15	16																	17	18
Cl	Ar																	19	20
K	Ca	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr				
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54		
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe		
55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		
Cs	Ba	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89			
Ta	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn				
91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107			
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr					
108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124			
Cn	Nh	Fl	Mc	Lv	Tl	Pb	Bi	Po	At	Rn	Uue	Uub	Uut	Uuq	Uur	Uus			
125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141			
Uuh	Uuq	Uur	Uus	Uut	Uuq	Uur	Uus	Uut	Uuq	Uur	Uus	Uut	Uuq	Uur	Uus	Uut			

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