

Make up tests: Come at lunch and after school to take missing tests. No appointment necessary.

Test 5

RC, sd, sl, AJ,

Test 6

CC, na, sd, id, rh, fj, jm, bs, as, MA, KF, AJ, SK

Test 7

JDV, KE, DS, na, ab, rh, aj, sl, ts, bt, JC, KF, TI, AJ, SK, FP

Last day for late anything is a week from tomorrow (June 5).



The Final Exam is the second week of June. Start making your cheat sheet. It must be one sided, hand written, 8½" x 11"

The Final Exam covers second semester only.

I will post a jumbo review packet online this Sunday at genest.weebly.com. We will be teaching new material every day. Next Week we will also start reviewing.

Bring your textbook back! This counts as a ten point homework assignment.

10 pts if you bring back your book this week

7 pts if any day next week.

THINGS TO HAND OUT AT
SOME POINT:

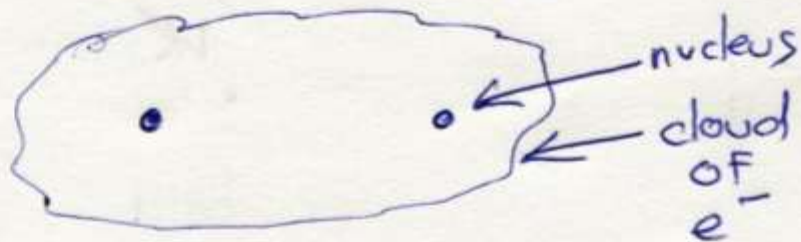
- 1) GLUED IN E.N.
PERIODIC TABLE
- 2) CHIT WITH 3 ELEMENTS
(RANDOM)
- 3) MINI POSTER INSTRUCTIONS

PURPOSE: HOW DO WE
DRAW POLAR BONDS?

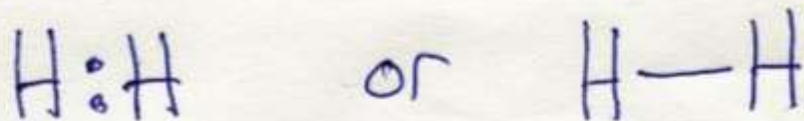
COVALENT BOND is
A CLOUD OF SHARED
 e^- THAT SURROUNDS
THE NUCLEI OF TWO
ATOMS, HOLDING THEM TOGETHER

How To DRAW A^{COVALENT} BOND

A. DRAW TWO NUCLEI AND A CLOUD OF SHARED e^-



B. SHORTHAND for hydrogen bonded to HYDROGEN:



POLAR BOND is a
COVALENT BOND MADE
OF SHARED e^- , WHERE
MORE e^- ARE AT ONE
END, MAKING THAT END
NEGATIVE

ELECTRONEGATIVITY IS
 A MEASURE OF HOW
 STRONGLY AN ELEMENT
 ATTRACTS A SHARED e^-

Electronegativity values of the elements (Pauling scale)

H 2.1																	He
Li 1.0	Be 1.5											B 2.0	C 2.5	N 3.0	O 3.5	F 4.0	Ne
Na 0.9	Mg 1.2											Al 1.5	Si 1.8	P 2.1	S 2.5	Cl 3.0	Ar
K 0.8	Ca 1.0	Sc 1.3	Ti 1.5	V 1.6	Cr 1.6	Mn 1.5	Fe 1.8	Co 1.8	Ni 1.8	Cu 1.9	Zn 1.6	Ga 1.6	Ge 1.8	As 2.0	Se 2.4	Br 2.8	Kr 3.0
Rb 0.8	Sr 1.0	Y 1.2	Zr 1.4	Nb 1.6	Mo 1.8	Tc 1.9	Ru 2.2	Rh 2.2	Pd 2.2	Ag 1.9	Cd 1.7	In 1.7	Sn 1.8	Sb 1.9	Te 2.1	I 2.5	Xe 2.6
Cs 0.7	Ba 0.9	La 1.1	Hf 1.3	Ta 1.5	W 1.7	Re 1.9	Os 2.2	Ir 2.2	Pt 2.2	Au 2.4	Hg 1.9	Tl 1.8	Pb 1.8	Bi 1.9	Po 2.0	At 2.2	Rn 2.4
Fr 0.7	Ra 0.7	Ac 1.1															
Ce 1.1	Pr 1.1	Nd 1.1	Pm 1.1	Sm 1.1	Eu 1.1	Gd 1.1	Tb 1.1	Dy 1.1	Ho 1.1	Er 1.1	Tm 1.1	Yb 1.1	Lu 1.2				
Th 1.3	Pa 1.5	U 1.7	Np 1.3	Pu 1.3	Am 1.3	Cm 1.3	Bk 1.3	Cf 1.3	Es 1.3	Fm 1.3	Md 1.3	No 1.3	Lr				

#2 How To DRAW UNEQUAL e^- SHARING

(A) draw a cloud of e^-

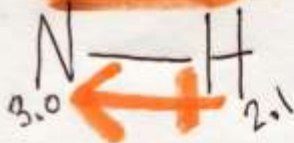
N and O in a bond



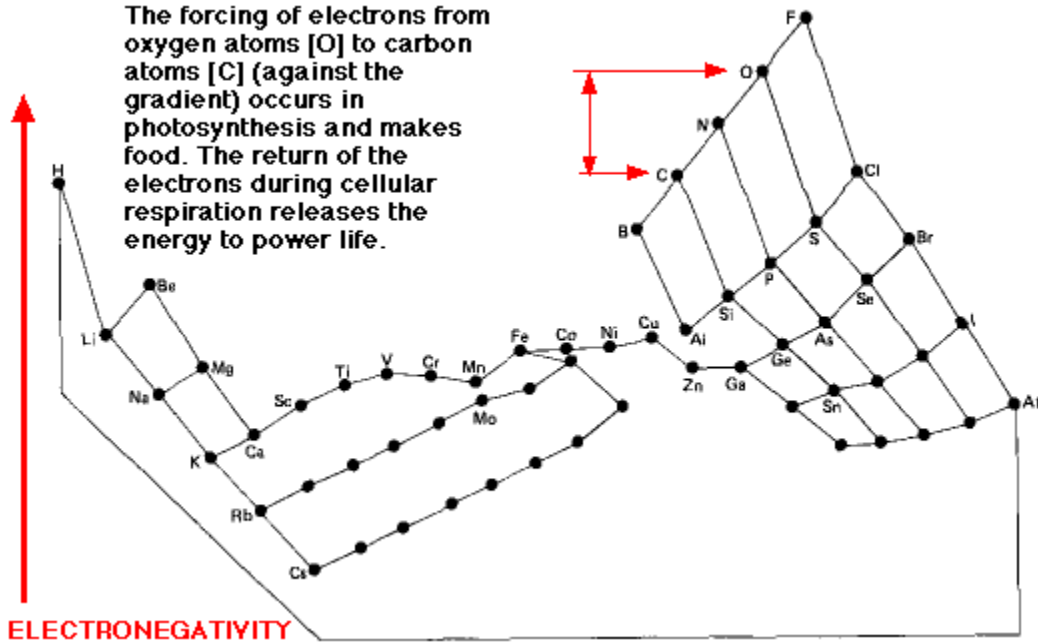
e^- flow toward the more
electronegative side

(B) SHORTHAND FOR DRAWING
A POLAR BOND

Example: show a N bonded to O

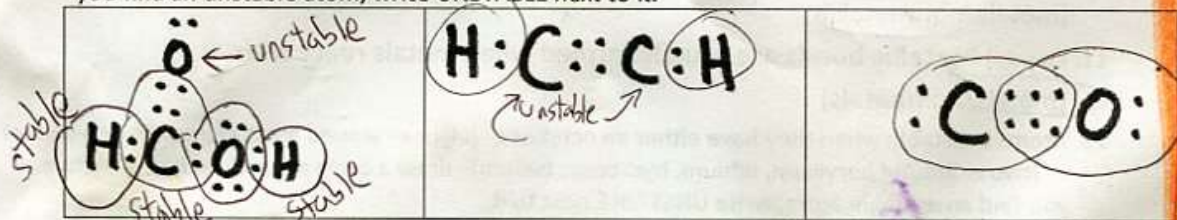


The forcing of electrons from oxygen atoms [O] to carbon atoms [C] (against the gradient) occurs in photosynthesis and makes food. The return of the electrons during cellular respiration releases the energy to power life.

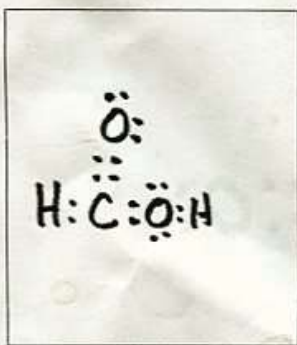
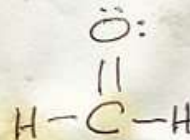
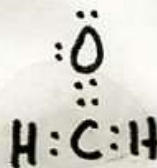
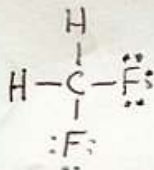
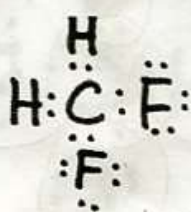




- How many valence e- are in an atom that is $1s^2 2s^1 2p^5$? SIX e-
- What two types of elements will combine to form a
 - ionic bond? metal with nonmetal
 - metallic bond? metal with metal
 - covalent bond? nonmetal with nonmetal
- Atoms are stable when they have either an octet of e- (eight e- around most elements) or a duet of e- (two e- around beryllium, lithium, hydrogen, helium). draw a circle around each stable atom. If you find an unstable atom, write UNSTABLE next to it.



- Convert these dot-drawings to line-shorthand drawings.



- For the molecule shown here,

- What is the formula of the substance? (e.g. the formula of water would be written H_2O) CH_2O_2
- how many bonds does it have? FIVE
- altogether, how many e- are in bonds? TEN
- altogether, how many e- are nonbonding? EIGHT
- how many valence e- altogether? EIGHTEEN

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7. $1s^2 2s^2 2p^6 3s^2 3p^4 4s^2 3d^9$ has 2 valence e⁻. Its dot symbol is... Cu:

8. Draw the electron dot symbol for a neutral atom of each:

a. calcium $Ca \cdot \cdot$

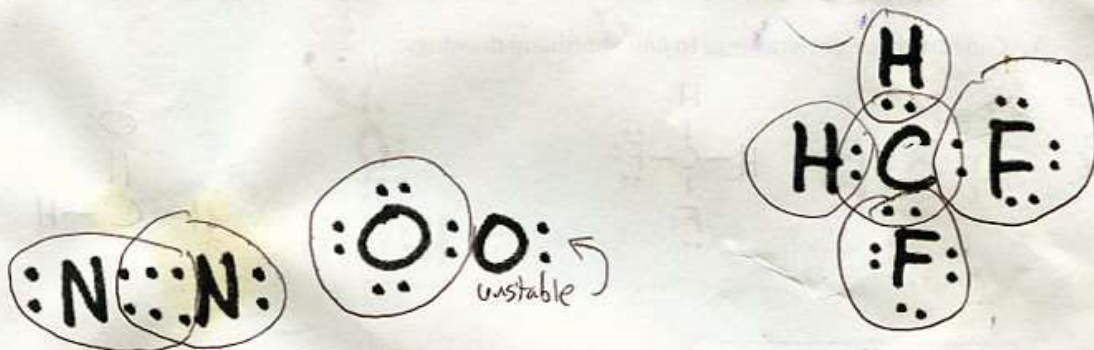
b. chlorine $:\ddot{Cl}:$ $1s^2 2s^2 2p^6 3s^2 3p^5$

9. (Circle one) **Ionic bonds** are usually formed when nonmetals react with
(metals/nonmetals)

10. (Circle one) **Covalent bonds** are usually formed when nonmetals react with
(metals/nonmetals)

11. (Circle one) **Metallic bonds** are usually formed when metals react with
(metals/nonmetals)

12. Atoms are stable when they have either an octet of e⁻ (eight e⁻ around most elements) or a duet of e⁻ (two e⁻ around beryllium, lithium, hydrogen, helium). draw a circle around each stable atom. If you find an unstable atom, write UNSTABLE next to it.



13. Convert these dot-drawings to line-shorthand drawings.

