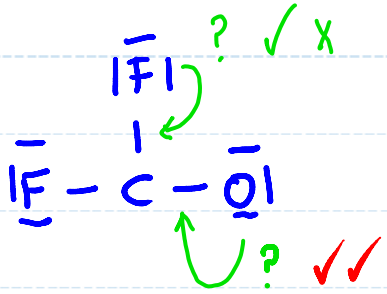
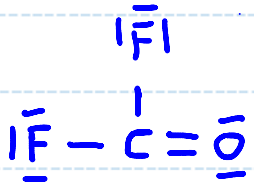
Announcements – Lecture X– Tuesday, Oct 16h

F_2CO (Not on Worksheet)

F:	2(7)
C:	4
O:	6
	24
3 x BP	-6
	18
9 x LP	-18
	0





How many equivalent Lewis structures are necessary to *describe* the bonding in F_2CO

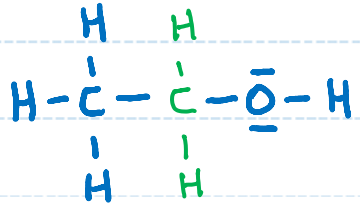
a) 0 b) 1 c) 2
d) 3 e) Help

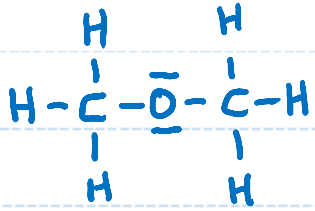
C_2H_6O

C : 2(4)
H : 6(1)
O : 6
20

8 x BP -16
4

2 x LP -4
0





How do I know which one?

Does it matter?

How many C-H bonds are there in C_2H_6O

a) 3 b) 4 c) 5
d) 6 e) Help

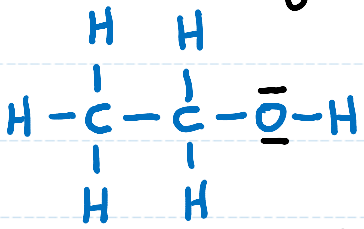
Notes

When dealing with organic molecules we can assume with some degree of certainty that the "Octet Rule" is not violated and thus:

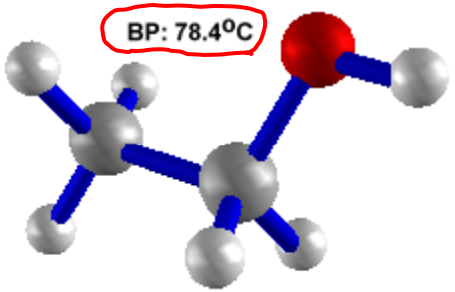
C: 4 bonds, 0 lone pairs
N: 3 bonds, 1 lone pair
O: 2 bonds, 2 lone pairs
Halides: 1 bond, 3 lone pairs

CH_3CH_2OH ... "C_2H_6O"

↳ Alcohol functional group

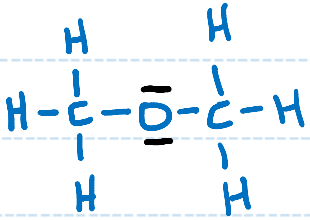


Ethanol.

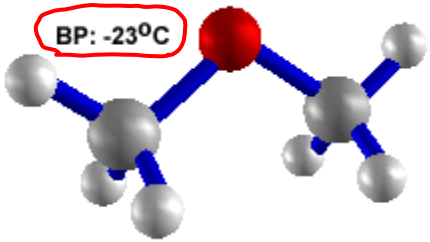


CH_3OCH_3 ... "C_2H_6O"

↳ Ether

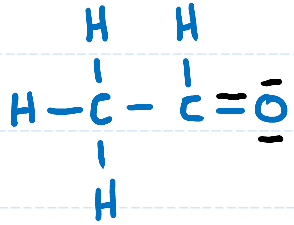


Dimethylether

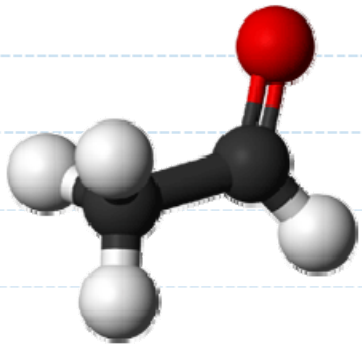


CH_3CHO

↳ aldehyde

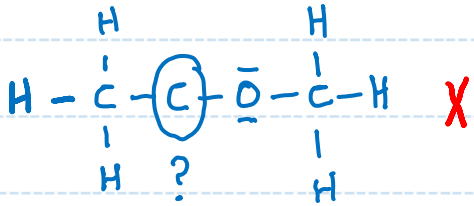


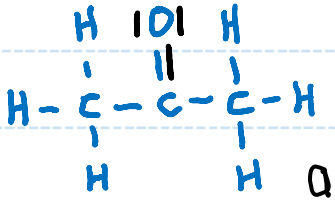
Acetaldehyde



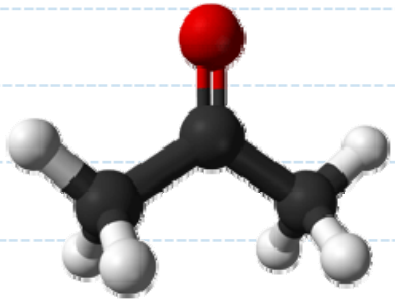
CH_3COCH_3

↳ Ketone



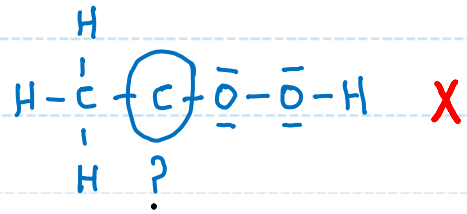


Acetone

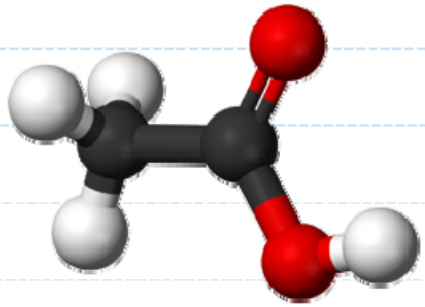


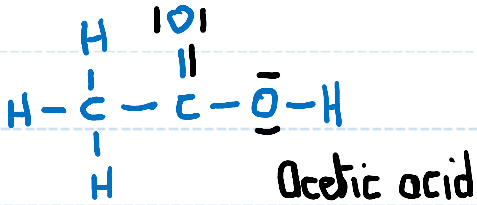
CH_3COOH

Carboxilic acid



X

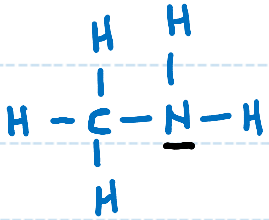




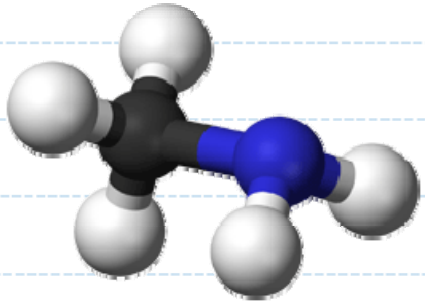
Acetic acid

CH_3NH_2

Amine (base)

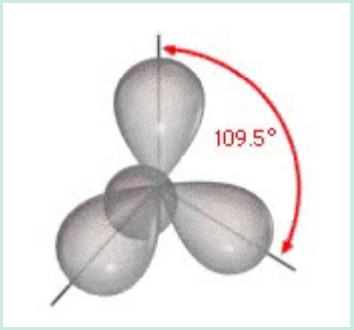
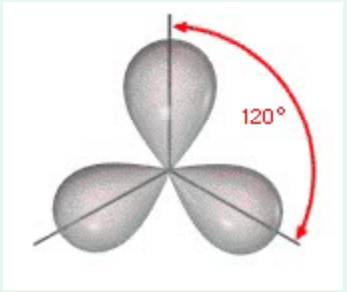
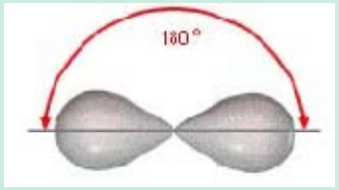


Methylamine



3.10 Molecular Geometries

Balloons – Shapes – Angles

No of Balloons	Shape	Name	Angle
4		TETRAHEDRON	~109°
3		TRIGONAL PLANAR	120°
2		LINEAR	180°