Exercise 4 data sheet (page 1 of 3)

Chemical formula	**Lewis dot structure**	Number of bonds (**bonded pairs**) around central atom	Number of **lone pairs** around central atom	**Description** of electron pair arrangement	Molecular **shape** prediction	**Sketch** of model, including approximate **bond angle**	**Polar**? (if yes, sketch the direction of the dipole moment)
NH_3	H:N:H H	3	1	tetrahedral	pyramidal		Yes
H_2S							
PBr_3							
$SiCl_4$							

Exercise 4 data sheet (Page 2 of 3)

Chemical formula	Lewis dot structure	# of bonds around central atom	# of lone pairs	Description of electron pair arrangement	Molecular shape prediction	Sketch of model and bond angle	Polar? (dipole moment)
CO_3^{2-}							
SO_3^{2-}							
NO_3^-							
NO_2^-							
NO_2^+							

Exercise 4 data sheet (page 3 of 3)

Chemical formula	Lewis dot structure	# of bonds around central atom	# of lone pairs	Description of electron pair arrangement	Molecular shape prediction	Sketch of model and bond angle assessment	Polar? (dipole moment)
H_2O							

CH_3CH_2OH (ethanol)						(don't worry about bond angles)	(yes/no?)
C_6H_{14} (hexane)						(don't worry about bond angles)	(yes/no?)

Sketch of the different mixtures (clearly show any **immiscibility** lines):

Water/ethanol Water/hexane Ethanol/hexane