Dat	a Sheet				
1.	Two groups of electrons on the	central atom. S	Show Lewis	s structure and	d sketch on left.
		electronic geometry		molecular geometry	polar?
	BeH ₂				
	CO ₂				

2. Three groups of electrons on the central atom. Show Lewis structure and sketch on left.

electronic	hybrid-	molecular	polar?
geometry	ization	geometry	

 $AICI_3$

 C_2H_2

 C_2H_4

 SO_2

Molecular Models						
Data Sheet (continued)				Name Section		
3.	Four groups of electrons on th	ne central atom.	Show Lew	is structure ar	nd sketch on left.	
	CCl ₄	electronic geometry	hybrid- ization		polar?	
	HCIO ₄					
	PH ₃					
	H ₂ O					

4. Five groups of electrons on the central atom. Show Lewis structure and sketch on left.

electronic geometry	•	molecular geometry	polar?

 SF_4

 PCI_5

 CIF_3

	IVIC					
Data Sheet			Name			
	(continued)			Section		
5.	Six groups of electrons on the	central atom. S	how Lewis	structure and	sketch on left.	
		electronic geometry	hybrid- ization	molecular geometry	polar?	

 SF_6

 \mathbb{IF}_5

 ${\sf XeF}_4$

Data Sheet (continued)

Name _____ Section _____

B.Model Building - Part II. Work in partners.

In this section the number of groups of electrons is not given; you must figure out what it is from the Lewis diagram. Then follow the directions as given in Part I of section B.

electronic	hybrid-	molecular	polar?
geometry	ization	geometry	

 $Br F_5$

N₂H₂ Note that there are two geometric arrangements for this compound. Build and draw both.

CO32-

 $POCI_3$

 NF_3

 OF_2

NOCI

Molecular Models					
Data Sheet (continued)			Name Section		
B.Model Building - Part II. continued.					
	electronic geometry	hybrid- ization	molecular geometry	polar?	
SOF ₄					

 CIO_2

H₂CO₂ There are two "central" atoms in this molecule. Show the geometry around each.

 BrF_3

A species assigned by your instructor