

Unit 3: Periodic Table

Review

1. What are the different chemical families on the periodic table? What do chemical families have in common?

2. Complete the following table on periodic trends.

	Na vs. S	F vs. I
Write the complete electron configuration for each atom.		
Which element has the higher atomic radius? Explain.		
Which element has the higher ionization energy? Explain		
Which element has the higher electronegativity? Explain		

3. Which has the larger radius, the neutral atom or the ion. Explain your reasoning for each.

a. O or O^{2-}

b. K or K^+

4. Complete the following table.

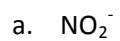
Molecule	Ionic or Covalent?	Polar or Non-polar	Draw bond with charge distribution.
SrO			
IBr			
FCI			

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5. Complete the following table.

Molecule	Lewis Structure	VSEPR Diagram	Shape	Polar or Non-Polar
AsCl ₃				
SiH ₄				
OBr ₂				
GeO ₂				
PA ₅				
Si ₆				
BI ₃				

6. Draw Lewis Structures for each of the following polyatomic ions. Determine the formal charge on each atom and then draw the resonance structures.



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