

## Worksheet #1

## Electron Dot for Atoms

- The atoms of the noble gas elements are stable. Explain.
- Define: valence electron
- How many valence electrons does each of the following atoms have?  
a) potassium      b) carbon      c) magnesium      d) oxygen
- Write electron dot structures for the following elements.  
a) Cl      b) Al      c) Li      d) C      e) Be      f) F  
g) Na      h) P      i) I      j) Ca      k) He      l) Ne
- Draw electron dot diagrams for O, S, Se, Te. Using these structures suggest one reason to explain why these elements are all in the same family.
- In the following table, draw electron dot diagrams for each of the elements, identify the number of valence electrons, the number of bonding electrons and the number of lone pairs.

Element	# of valence electrons	Lewis Dot Diagram	# of bonding electrons	# of lone pairs
Sr				
Cs				
Te				
Br				
Xe				

## Worksheet #2

## Electron Dot for Molecules &amp; Molecular Shapes

1. For each of the following draw the Lewis Dot Diagram, draw the molecular shape, indicate the name of the shape and bond angles.

Molecule	Lewis Dot Formula	Molecular Shape	Name of Shape & Bond Angles
$\text{SiH}_4$			
$\text{PH}_3$			
$\text{OF}_2$			
$\text{GaH}_3$			
$\text{C}_2\text{Cl}_2$			

## Worksheet #2

## Electron Dot for Molecules &amp; Molecular Shapes

Molecule	Lewis Dot Formula	Molecular Shape	Name of Shape & Bond Angles
$\text{CCl}_2\text{F}_2$			
$\text{NCl}_3$			
$\text{SCl}_2$			
$\text{CH}_2\text{S}$			
$\text{N}_2$			
$\text{Si}_2\text{Cl}_2$			

## Worksheet #2

## Electron Dot for Molecules &amp; Molecular Shapes

Molecule	Lewis Dot Formula	Molecular Shape	Name of Shape & Bond Angles
$\text{CCl}_3\text{Br}$			
$\text{PCl}_2\text{Br}$			
$\text{H}_2\text{S}$			
$\text{SiO}_2$			
$\text{BF}_3$			
$\text{SiH}_2\text{O}$			

