**Lewis Structure Worksheet #1**

Review your notes Part IV: Lewis Structures carefully and complete Lewis structures for each of the following molecules:

***Group A: Simple Molecules – single bonds only, you may have a lone pair on your central atom***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CH4 | NH3 | H2O | SiF4 | NCl3 |

***Group B: Polyatomic Ions - single bonds only in these***

|  |  |  |  |
| --- | --- | --- | --- |
| **3-** | - | 2- | 2- |

PO4

ClO 3

SO 4

SO3

***Group C: Multiple Bonds – at least one double or triple bond***

|  |  |  |  |
| --- | --- | --- | --- |
| H2CO | HCN | CO | CO2 |

***Group D: Incomplete Octets – less than 8 electrons for the central atom***

BCl3 BeF2

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***Group E: Expanded Octets – more than 8 electrons for the central atoms***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SF6 | PCl5 | BrF5 | XeF4 | ClF3 |

***Group F: Multiple Central Atoms – carbons go in the center***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| C2H6 | C3H8 | C2H5OH | C2H4 | C2F2 |

Original worksheet done by Mr. Thompson