

Lewis Structure Shapes and Expanded Octets Guided Notes:

Shapes:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Linear:

-- _____
-- _____

Draw:

Examples: HCl , HCN

Trigonal Planar:

-- _____
-- _____

Draw:

Examples: NO_3^- , BF_3

Tetrahedral:

-- _____
-- _____

Draw:

Examples: CH_4

Trigonal Pyramidal:

-- _____
-- _____

Draw:

Examples: NH_3

Bent:

-- _____

-- _____

Draw:

Examples: H₂O

Expanded Octets:

-- sometimes the central atom can have more than 8 valence electrons (4 pairs)

-- this can happen with elements beyond the 3rd period

-- the 3d, 4d, 5d and 6d electrons can be used

Trigonal Bipyramidal:

-- _____

-- _____

Draw:

Examples: PCl₅

Octahedral:

-- _____

-- _____

Draw:

Examples: SF₆