9.0 Props – Molecular structure

Subjects: Molecular structure, orbitals, VSEPR theory

Description: Models and balloons are used to illustrate the geometry of molecular orbitals and VSEPR theory.

Materials:
Space-filling foam tetrahedral and linear models
Foam molecular model & hybrid orbital kit (located in drawers next to hood)
Wood molecular model kit (in drawers next to the sink)
Pipe cleaners (for adding double and triple bonds to wood models)

Procedure:
1. Create and display models of different molecules including:
    Acetylsalicylic acid, ethane, acetylene, acetic acid, phosgene, PF_3Cl_2, cysteine, CO_2, H_2O, BF_3 and NF_3
2. Use the pipe cleaners to demonstrate double bonds, triple bonds, and lone electron pairs

Discussion:
None

Safety:
None

Disposal:
None

References:
1. Prof Botch