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, PF₃Cl₂, cysteine, CO₂, H₂O, BF₃ and NF₃
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