Mol* Cheat Sheet

1. Navigate the 3D Canvas:
   a. Rotate
      • Press left mouse button and move OR use Shift + left mouse button and drag.
   b. Translate
      • Press right mouse button and move OR use Control + the left mouse button and move. On a touchscreen device, use a two-finger drag.
   c. Zoom
      • Use the mouse wheel. On a touchpad, use a two-finger drag. On a touchscreen device, pinch two fingers.
   d. Center and zoom
      • Use right mouse button to click on the part of structure you wish to see.
   e. Change clipping planes
      • Use Shift button + the mouse wheel. On a touchpad, use the Shift button + a two-finger drag.

2. Select: first open Selection Mode and change the Picking Level (if needed)
   a. Select Picking Level
      • Click on objects in the 3D canvas – such as atoms, residues, chains, etc.
   b. Select object in 3D canvas
      • Click on residues, chains etc. in the 3D canvas based on picking level
   c. Select object from Sequence Panel
      • Click on residues, ligands, or entire chain in the Sequence Panel
   d. Custom Select combinations
      • Use the Set Operations Menu in the Selection Mode toolbar

3. See or Hide:
   a. To add representations
      • Create a component of the region you wish to see/hide → Go to the Components Panel and press the “eye” icon next to the component you create
   b. To hide/remove from view
      • Select region you wish to hide → Click on the subtract/hide icon in the Selections toolbar

4. Color:
   a. N-terminus to C-terminus (rainbow)
      • Components → Polymer → Set Coloring → Residue Property → Sequence Id
   b. Heteroatom
      • Components → Polymer → Set Coloring → Atom Property → Element Symbol
   c. Secondary structure
      • Components → Polymer → Set Coloring → Residue Property → Secondary Structure
   d. Hydrophobicity
      • Components → Polymer → Set Coloring → Residue Property → Hydrophobicity
   e. Domain
      • Select domain → Selections Menu → Apply Theme to Selection → Color → Apply Theme

5. Compare Structures: first upload two or more structures at rcsb.org/3D-view
   a. By chains
      • Select 2 or more polymer chains/residues → Superposition → By Chains → Superpose
   b. By atoms
      • Select 1 or more atoms → Superposition → By Atoms → Superpose

6. Make Measurements:
   a. Distance
      • Make 2 or more selections → Measurements → Add → Distance (for first 2 selections)
   b. Angle
      • Make 3 or more selections → Measurements → Add → Angle (for first 3 selections)
   c. Dihedral
      • Make 4 or more selections → Measurements → Add → Dihedral (for first 4 selections)