

Complex ions

Textbook page 405-408. You may also wish to revisit Y12 molecular shapes, p.70-73.

Define the following terms

- Ligand
- Coordinate bond/Dative covalent bond
- Coordination number
- Monodentate ligand
- Bidentate ligand

Make notes on complex ions.

Use the following questions as a guide

1. Show the convention for writing a complex ion.
2. Make a table of monodentate ligands.
3. Sketch two bidentate ligands and explain how it forms a complex with a co-ordinate number of 6. You may find it easier to use figure 4 as a diagram to label.
4. Sketch, in 3D, an octahedral complex, a tetrahedral complex, and a square planar complex. Note the bond angles of each.