

**Year 12 Mastery Test**  
**Electron Dot Diagrams**

Draw electron dot diagrams for the following species and identify their shape

species	Dot diagram	shape
$\text{PO}_4^{3-}$		
$\text{H}_2\text{S}$		
$\text{NO}_2$		
$\text{CH}_3\text{Cl}$		
$\text{C}_2\text{H}_2$		
$\text{Cl}_2$		
$\text{BCl}_3$		

**SOLUTIONS**  
**Year 12 Mastery Test**  
**Electron Dot Diagrams**

Draw electron dot diagrams for the following species and identify their shape

species	Dot diagram	shape
$\text{PO}_4^{3-}$		Tetrahedral
$\text{H}_2\text{S}$		V-shaped or bent
$\text{NO}_2$		bent
$\text{CH}_3\text{Cl}$		Tetrahedral
$\text{C}_2\text{H}_2$		Linear
$\text{Cl}_2$		Linear
$\text{BCl}_3$		Triangular planar