

# Y12 – Atomic Structure

Stick this checklist into your yellow book at the beginning of the topic. Tick off the topics as you cover them.		
In this module you are expected to be able to...	In Notes	Revised
Define the terms <ul style="list-style-type: none"><li>Atomic Orbital</li><li>Sub-shell</li><li>First ionisation energy</li></ul>		
Calculate $p^+ n^0 e^-$ numbers for atoms and ions		
Use mass spectrometry data to calculate relative atomic mass		
Draw, and name, the shape of s and p orbitals.		
Recall the number of orbitals making up s, p and d sub-shells		
Draw orbital filling diagrams for elements up to and including Kr		
Write electron configurations for elements up to and including Kr		
Draw orbital filling diagrams and write electron configurations for s and p block elements up to Kr		
Identify the s p d and f blocks of the periodic table		
Write equations for ionisation energies		
Explain the trends in ionisation energy <ul style="list-style-type: none"><li>Down a group</li><li>Across a period</li></ul>		
Sketch the ionisation energies of period 2 and 3 as a graph, and explain the jumps in energy between groups 2 and 3, and between groups 5 and 6.		
Use successive ionisation energies to identify the group an atom is found in.		

## Pre-test Evaluation

I have...	
Updated my yellow book notes	
Ensured I understand all of my notes	
Looked on the open drive for additional work	
Asked my teacher for guidance	
Confidence rating	I’m doomed!    --    -    =    +    ++    I am the BOSS!