

Developing Models of Matter – Summary Note
(What you really need to know!)

Theory	Model	Analogy
1. Dalton's Theory <ul style="list-style-type: none">• John Dalton• 1808• matter is made of indivisible atoms• each element has its own kind of atom with its own particular mass.		
2. Thomson's Theory <ul style="list-style-type: none">• J.J. Thomson• 1904• atom is a positive sphere with embedded negative electrons		
3. Rutherford's Theory <ul style="list-style-type: none">• Ernest Rutherford• 1911• atom has a small positive nucleus (with protons), which is surrounded by mostly empty space and rapidly moving electrons		
4. Chadwick's Theory <ul style="list-style-type: none">• James Chadwick• 1932• discovered the neutron		
5. Bohr's Theory <ul style="list-style-type: none">• Niels Bohr• 1921• electrons move around nucleus in orbits		