

# Welcome to A Level Chemistry



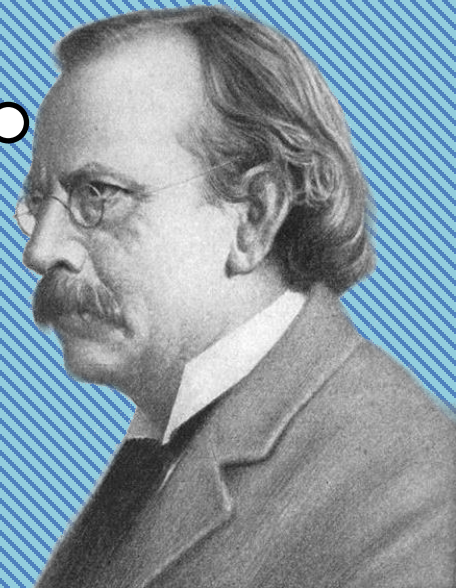
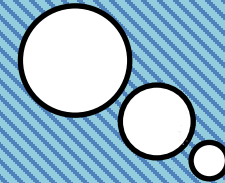
On mini-whiteboards, determine the full symbol (inc. relative atomic mass, atomic number and charge) for these particles:

Number of Protons	Number of Neutrons	Number of Electrons	Identity of particle
11	12	10	$^{23}_{11}\text{Na}^+$
1	2	0	A? $^3_1\text{H}^+$
8	10	10	B? $^{18}_8\text{O}^{2-}$
25	32	18	C? $^{57}_{25}\text{Mn}^{7+}$
45	58	45	D? $^{103}_{45}\text{Rh}$

# Lesson Objective

What are elements, ions,  
and isotopes?

What is relative atomic mass  
and how can it be  
determined?



J.J. Thompson

# Our expectations of you:



- To arrive on time to your lesson, dressed in the correct clothing, and with the correct equipment (including a scientific calculator);
- To complete all home learning set to the best of your ability, including any self-marking you are asked to do;
- To be reflective learners, who are open and honest about any difficulties, and to ask for help when needed;
- To attend after school Chemistry clinic as needed bringing any problems or difficulties you are having with you;
- To act upon any feedback given and complete any next steps;
- To check your school email account regularly and respond to any messages from your teachers;
- To regularly check you student page on Class Charts and to know you working at and target grades.

# What to expect from us:



- To plan and deliver effective lessons that cover the content required for the course;
- To set home learning every lesson and check its completion;
- To design seating plans to maximise your ability to learn in class;
- To accurately mark your assessments;
- To use assessment data to keep your working at and challenge grades up to date;
- To run the weekly after school Chemistry clinic on Wednesdays;
- To maintain contact with your parents' and guardians' and keep them updated of your progress;
- To have the highest possible expectations of you, to help you achieve these, and let you know when you are not.

# How to organise your studies



This work will be in your subject lab book.

**Module 1**  
Development of practical skills in chemistry

**Module 2**  
Foundations of chemistry

**Module 3**  
Periodic table and energy

**Module 4**  
Core organic chemistry

You will need an A4 folder for this module.

Over the summer you should get yourself the following if you do not already have them:

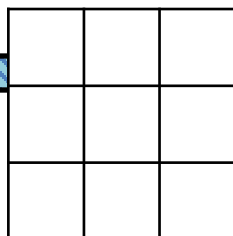
- An A4 folder;
- Two A4 lever arch folders;
- Sets of dividers (enough to separate the 29 chapters of the course);
- A scientific calculator;

analysis

You will need two lever arch folders: one for modules 3 and 5, and one for modules 4 and 6.



# Chemistry Taster Seminar



**Starter:** Elemental bingo; pick any nine of the elements below to populate in a 3 x 3 grid.

## The Periodic Table

<b>H</b> <sup>1</sup> Hydrogen $A_r = 1$							<b>He</b> <sup>2</sup> Helium $A_r = 4$
<b>Li</b> <sup>3</sup> Lithium $A_r = 7$	<b>Be</b> <sup>4</sup> Beryllium $A_r = 9$	<b>B</b> <sup>5</sup> Boron $A_r = 11$	<b>C</b> <sup>6</sup> Carbon $A_r = 12$	<b>N</b> <sup>7</sup> Nitrogen $A_r = 14$	<b>O</b> <sup>8</sup> Oxygen $A_r = 16$	<b>F</b> <sup>9</sup> Fluorine $A_r = 19$	<b>Ne</b> <sup>10</sup> Neon $A_r = 20$
<b>Na</b> <sup>11</sup> Sodium $A_r = 23$	<b>Mg</b> <sup>12</sup> Magnesium $A_r = 24$	<b>Al</b> <sup>13</sup> Aluminium $A_r = 27$	<b>Si</b> <sup>14</sup> Silicon $A_r = 28$	<b>P</b> <sup>15</sup> Phosphorus $A_r = 31$	<b>S</b> <sup>16</sup> Sulphur $A_r = 32$	<b>Cl</b> <sup>17</sup> Chlorine $A_r = 35$	<b>Ar</b> <sup>18</sup> Argon $A_r = 40$
<b>K</b> <sup>19</sup> Potassium $A_r = 39$	<b>Ca</b> <sup>20</sup> Calcium $A_r = 40$						

1. I have 13 protons in my nucleus
2. I have five electrons in my third shell
3. I am the third most common gas in the atmosphere
4. I am the standard against which relative mass is measured
5. I bleach damp litmus paper white
6. My oxide is the primary component of sand
7. My carbonate is more commonly known as limestone
8. I am the least reactive of the alkali metals

**Aluminium**  
**Phosphorus**  
**Argon**  
**Carbon-12**  
**Chlorine**  
**Silicon**  
**Calcium**  
**Lithium**

# The Periodic Table

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