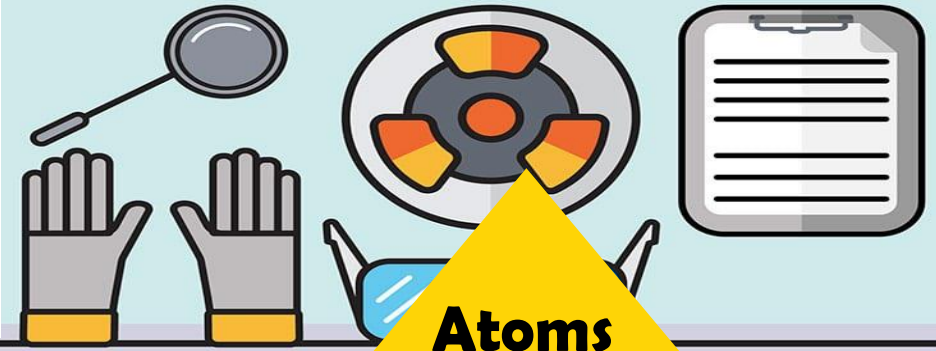
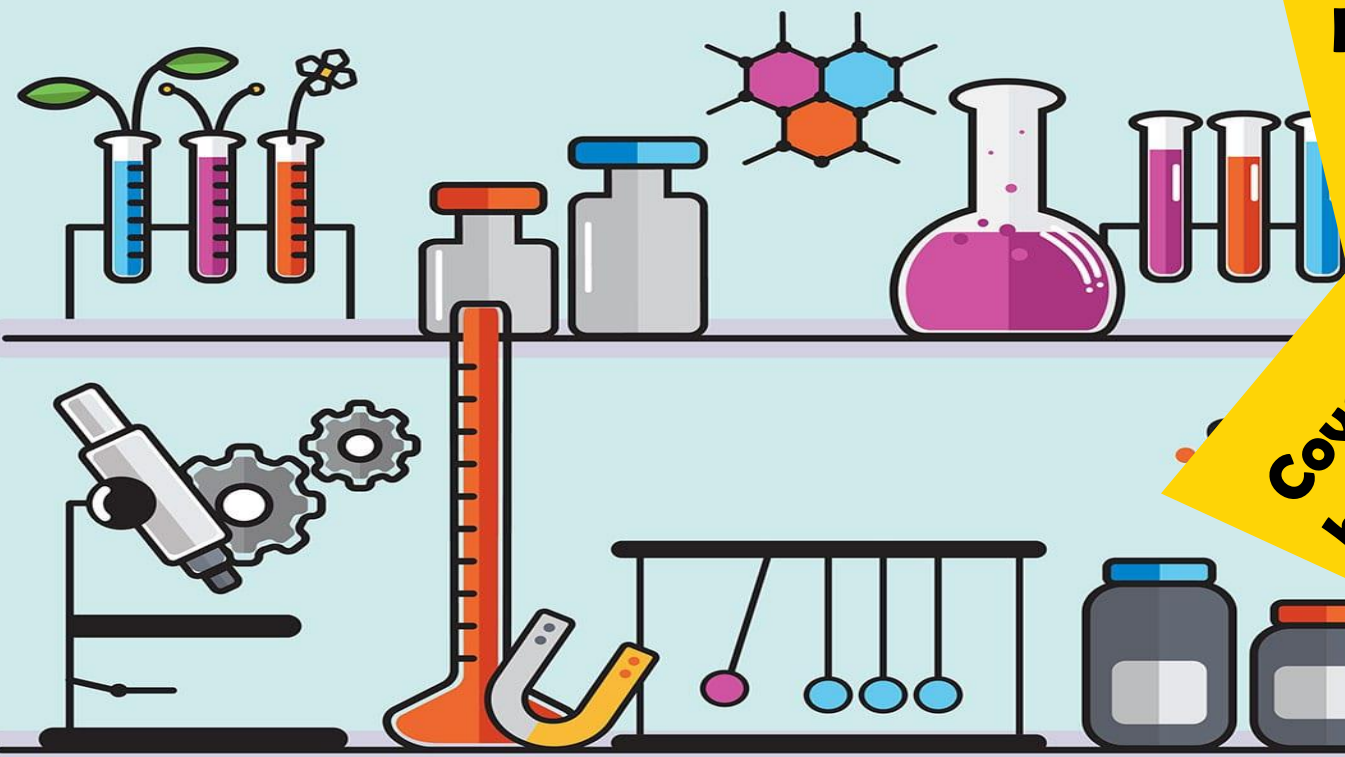


Getting ready for Year 10 Science Chemistry



Atoms



Ions

Electrolysis

Ionic bonding

Metallic bonding

Proton

Metals

Covalent bonding

Exothermic

Endothermic

Acid

Neutron

Alkali

Electron

Neutralisation

pH

And a lot more...

Getting ready for Year 10 Science

Chemistry

To do; Complete two of the three tasks on the next slides.

- Task 1 – A Newspaper of Discoveries
- Task 2 – 3D/Interactive Periodic Table
- Task 3 – The History of the Atom Stop Motion Video

How to do it; on paper, in your old book or on your iPad ~ get creative. We don't mind how you do it as long as you have a go!


Challenge; Complete all 3 and send to Mrs Anthony for a reward!

Task 1 – A Newspaper of Discovery

TASK: Make a newspaper containing your top 10 chemistry discoveries ever!
discoveries ever!


You must include: 10 ideas minimum, when they were discovered, what they do, why they have made it into your top ten, who discovered them?

POLYTHENE


$$\left[\begin{array}{c} \text{H} \quad \text{H} \\ | \quad | \\ -\text{C}-\text{C}- \\ | \quad | \\ \text{H} \quad \text{H} \end{array} \right]_n$$

A large number of plastic objects you come across are made of some form of polythene. It was initially discovered in 1898, but a practical method for producing it wasn't developed until 1933. 80 million tonnes are made each year.

HABER-BOSCH PROCESS


$$\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$$

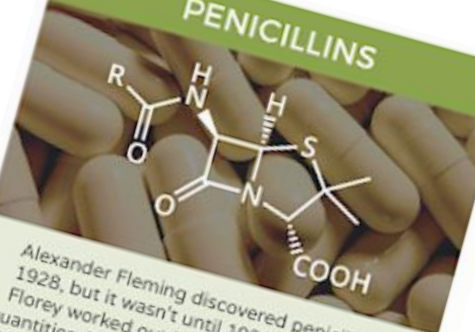
Plants need nitrogen, but a major limiting factor in agriculture is its availability. German chemists Fritz Haber & Carl Bosch worked out a way of combining hydrogen and nitrogen to make ammonia, which can be used as crop fertiliser.

LIQUID CRYSTAL DISPLAYS



Chemists have known about liquid crystals for some time, but room temperature LCD displays only became possible after George Gray's discovery of 5CB in 1972. 5CB derivatives are still present in TV, phone and laptop screens.

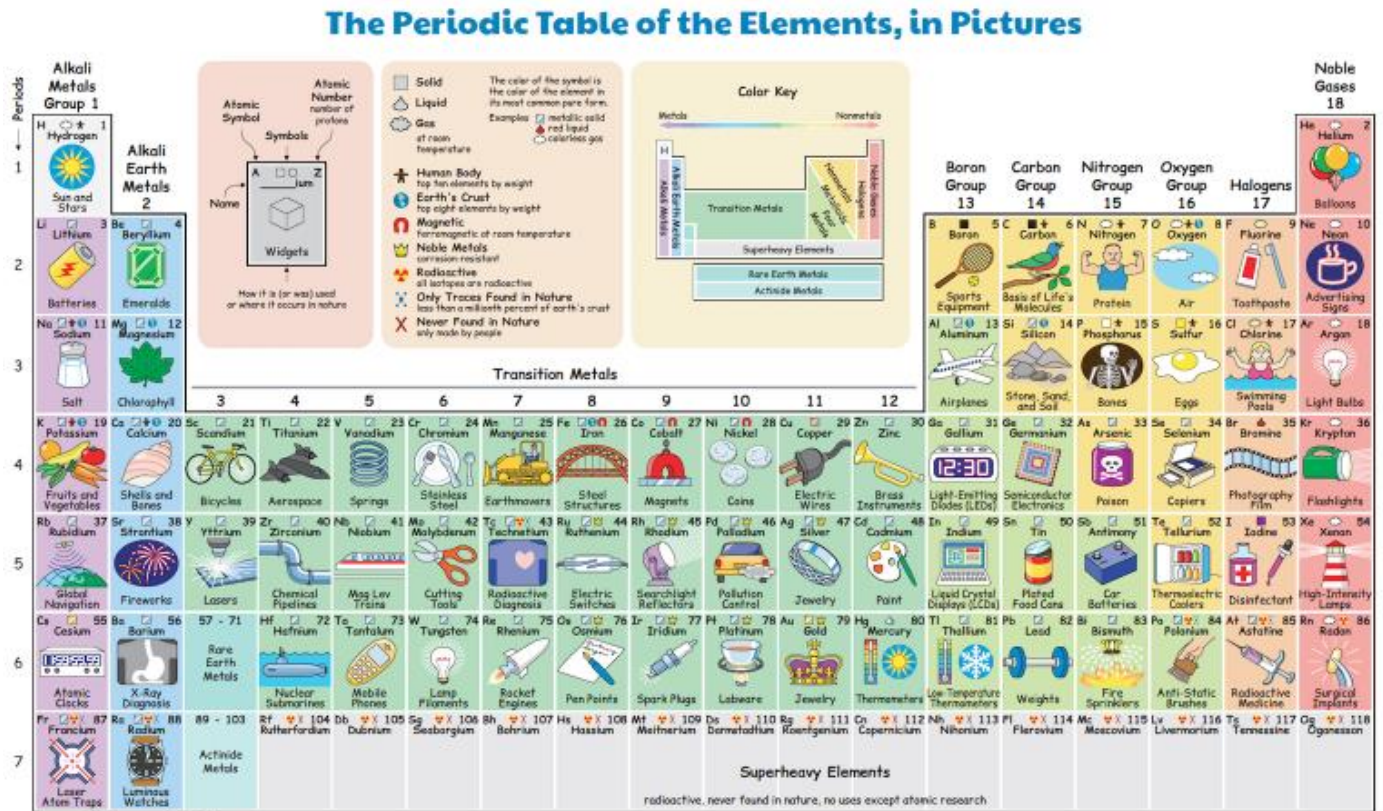
PENICILLINS



Alexander Fleming discovered penicillin in 1928, but it wasn't until 1939 that Howard Florey worked out how to make it in useful quantities. They were amongst the first drugs effective against multiple bacterial infections.



Task 2 – 3D/Interactive Periodic Table



TASK: Make a 3D or interactive Periodic Table with information about all the 118 elements.

You must include: The names of the elements, when they were discovered and what they are used for today.

Task 3 – The History of the Atom

TASK: Research who discovered the different parts of the atom and how we came to use the model that we do today. This can be as a storyboard, a stop motion animation or a timeline.

You must include names and details of the following: John Dalton, J.J. Thomson, Ernest Rutherford, Niels Bohr and James Chadwick.

