

Match up Groups and Periods Activity

Atomic Theory Unit

Lesson Plan - Year 9 Science

Victorian Curriculum Enduring Understandings
Students understand the atom as a system of protons, electrons and neutrons, how the current model has developed over time and that many scientists and theories have contributed to its review. They understand relationships within the periodic table of elements, including periods and groups to the structure and reactivity of atoms. They recognise the signs of a chemical reaction and how to classify them.
Victorian Curriculum Unit Description
Students learn that all matter is made of atoms which are composed of protons, neutrons and electrons. They identify the subatomic particles in the atom and learn how this atomic structure and properties of elements are used to organise them in the periodic table. They use atomic symbols to represent elements and ions. They classify types of chemical reactions based on their reactants and products.

Glossary – Activity Specific

Period	Cation	Charge
Periodic Table	Anion	
Group	Chemical Formula	

Content Descriptors from Victorian Curriculum

Mode/Strand/Sub-strand 2	<p>The atomic structure and properties of elements are used to organise them in the periodic table (VCSSU123)</p> <ul style="list-style-type: none">• describing the structure of atoms in terms of electron shells• explaining how the electronic structure of an atom determines its position in the periodic table and its properties
---------------------------------	---

Goals:

To be able to identify and number the groups and periods in the periodic table

Success Criteria:

I can identify and number the groups and periods in the periodic table

Activity

This is a fun quick activity about 10-15 mins which allows students to familiarise themselves with the period table and to understand the periods and groups.

You will need 1 periodic table and 1 element set

1. Get the students into groups of 4 and supply them with a periodic table and element set.
2. Get one student to pick out randomly an element from the set.
3. Get all the students to match the symbol with the name and find its place on the periodic table then get them to work out the row and the period of that element. Ask them to also work out what the ion charge will be.
4. Ask the students to work out the formulas based on that cation anion charge.
5. Repeat until you feel students have consolidated knowledge

Student Worksheet

[illegible]