

Hello Year 7 😊

For period 3 as we talked about in lesson – you will be revising for your End of unit chemistry test on **Atoms, elements and compounds**. There is a knowledge organiser below with the information you need for the test. I have assigned a Seneca test [Link HERE](#) – you need to **LOG IN WITH GOOGLE** and use your school email and password – this task will help you to revise for the test. You must aim for over 80% for each module – repeat it if you get below 80%

The Test is on Friday 23/02.24 (our next lesson)

Have fun and have a lovely half term

Mrs Mehra

Elements, Atoms, and Compounds Knowledge Organiser

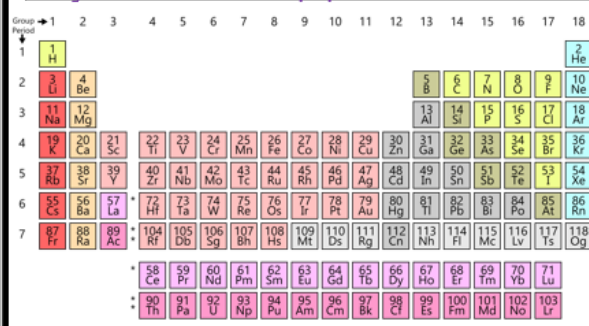
Section 1: Key Terms	Definitions
Atom	The smallest part of an element that can take part in chemical reactions. No overall electrical charge . Very small , radius of 0.1nm.
Element	An element contains only one type of atom . Found on the Periodic Table. There are about 100 elements.
Compound	Two or more elements chemically bonded with each other.
Mixture	Contains two or more elements or compounds not chemically bonded . Can be separated using physical methods e.g. by filtration, crystallisation, distillation and chromatography.
Periodic table	A table that contains all of the known chemical elements.
Chemical formulae	Shows the particles present in a compound and the relative proportions of elements.

Section 2: Elements

- An element is a substance that **cannot** be broken down into any other substance. Every element is made up of its **own type of atom**. This is why the chemical elements are all very different from each other.
- Everything in the universe contains the atoms of at least **one or more elements**.
- The **periodic table** lists all the known elements and groups together those with **similar properties**.

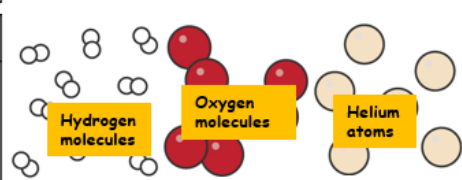
Section 4: Chemical symbols and formulae

Remember that we use **chemical symbols** to stand for the elements. For example, **C** stands for carbon, **O** stands for oxygen, **S** stands for sulfur and **Na** stands for sodium. For a molecule, we use the chemical symbols of the atoms it contains to write down its **formula**.



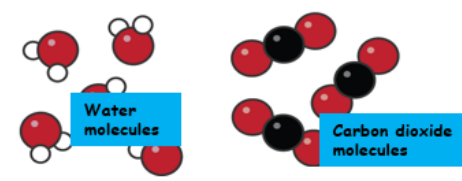
Section 3: Atoms

- The atoms in a particular element are the same as each other, and they are different from the atoms of all other elements.
- For example, lead and gold are elements. A piece of pure gold contains only gold atoms.
- The atoms of some elements do not **join together**, but instead they stay as separate atoms. Helium is like this. The atoms of other elements, such as hydrogen and oxygen, **join together** to make **molecules**.



Section 3: Compounds

A **compound** is a substance that contains atoms of two or more different elements, and these atoms are **chemically joined together**. For example, water is a compound of hydrogen and oxygen. Each of its molecules contains two hydrogen atoms and **one oxygen atom**.



$$\text{Na}_2\text{SO}_4$$

Two sodium atoms One sulfur atom Four oxygen atoms