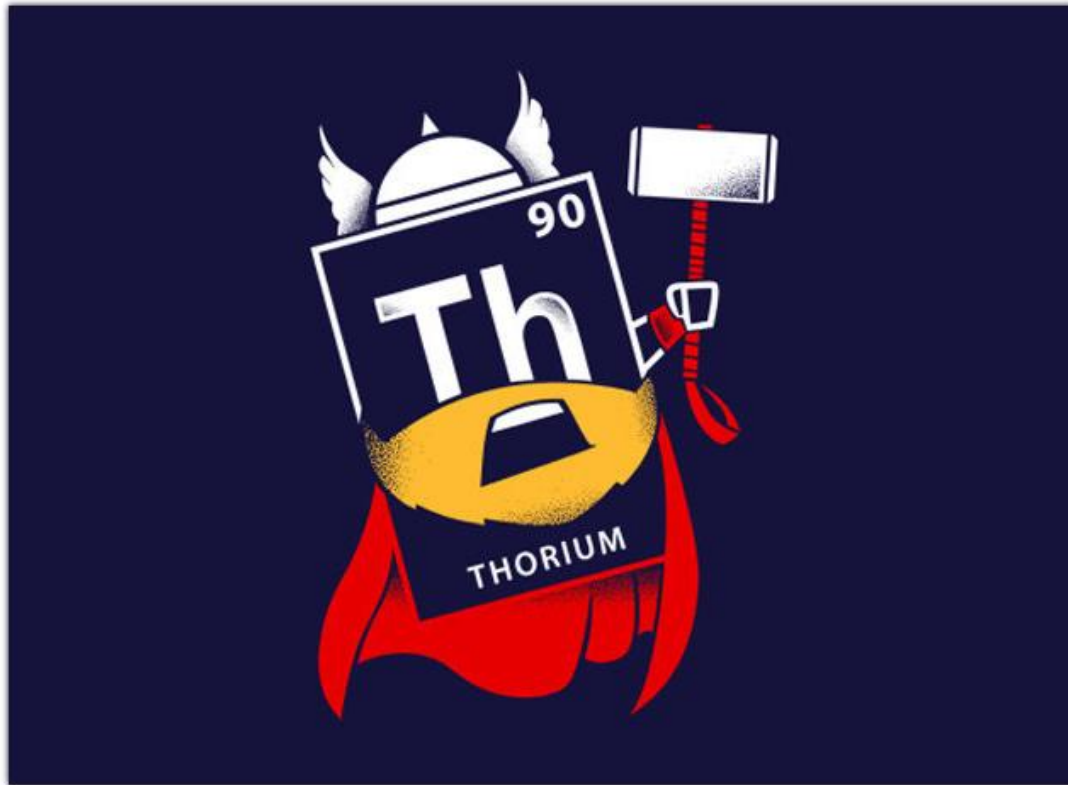


Elements and their Symbols



S1-2-03 Define element and identify symbols of some common elements. Include: the first 18 elements, K, Ca, Fe, Ni, Cu, Zn, I, Ag, Sn, Au, W, Hg, Pb, U

Elements...

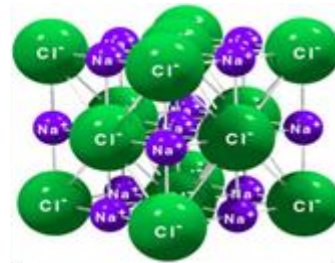
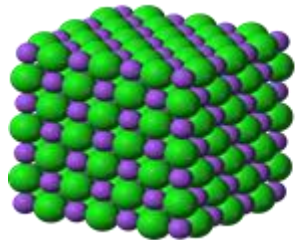
Element:

An element is a **PURE SUBSTANCE** that **CANNOT** be **BROKEN DOWN** into **SIMPLER SUBSTANCES**.

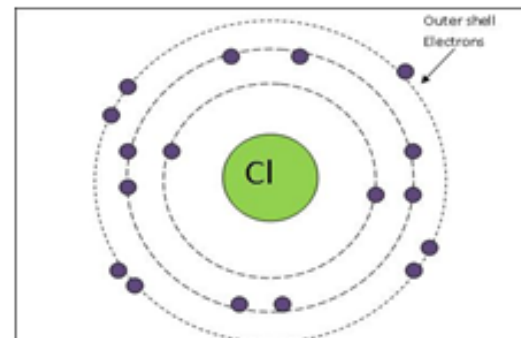
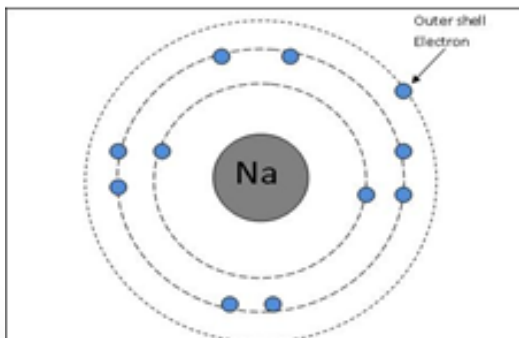
Elements are made up of **IDENTICAL ATOMS**.

Example:

Table salt is **NOT** an element because it can be broken down into atoms of **SODIUM** and **CHLORINE**.



SODIUM and **CHLORINE** cannot be broken down, so they are **ELEMENTS**



Element Symbols...

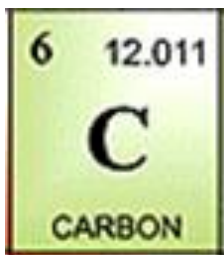
ATOMIC SYMBOLS

In order to shorten things, scientists came up with SYMBOLS that REPRESENT each element known to us.

A chemical SYMBOL is just an ABBREVIATION of the NAME, but there are RULES for symbols:

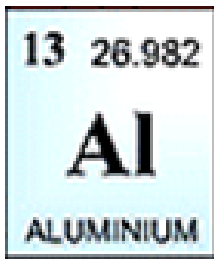
- 1. A single letter symbol is always capitalized.*

Ex) Carbon = C



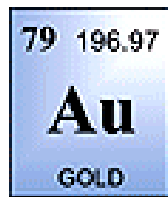
- 2. The first letter of a two-letter symbol is always capitalized, while the second is lower case.*

Ex) Aluminum = Al

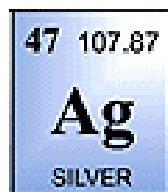


Element Symbols...

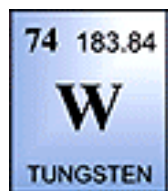
Many symbols are not just the first letters of the name of the chemical, some are different. For example:



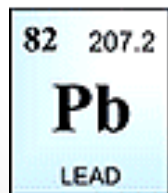
→ From the Latin name *Aurum*



→ From the Latin name *Argentum*



→ From the German *Wolfram*



→ From the Latin name *Plumbum*

Element Symbols...

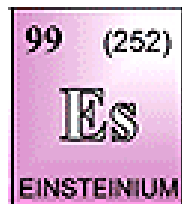
Some elements get their names from who or where they were discovered. For example:



→ Discovered in SCANDINAVIA



→ Created at the U. of BERKELEY



→ In honour of ALBERT EINSTEIN