**ACTIVITY: Symbol find**

**Activity idea**

In this activity, students become familiar with symbols of the chemical elements by creating them using letters from a phrase or sentence.

By the end of this activity, students should be able to:

* recognise element symbols
* correctly link element names with element names and vice versa
* demonstrate element recognition through symbol and name for at least 20 elements.

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**Introduction/background**

A current version of the periodic table lists the names and symbols of the 112 elements discovered and named to date. It can be a daunting task getting to know the names and symbols of these elements. As an aid to becoming more familiar with these names and symbols, this activity is based around a common quotation or saying and analysing the pattern of letters present. Some letters and combinations of letters remind us of element symbols.

**What you need**

* A copy of the periodic table
* Several famous quotations or sayings

**What to do**

1. Have students find a suitable quotation/saying and find as many element symbols as they can using each letter from the quotation/saying only once.

Here’s an example using some graffiti that appeared on the wall of a London underground station: “Life is a sexually transmitted disease.”

Symbols of elements able to be extracted are Li, Fe, Si, As, Xe, Al, Lu, Y, Ta, Rn, Sm, Ti, Te, S, I, Ds. Letters left over are d, e, e, a.

Restrictions can be imposed on the way the letters are used. For example, if the letters or combination of letters is restricted to reading from left to right then the phrase above gives the following symbols: Li, Fe, I, S, As or Se, U, Al, Y, Ra, N, Sm, Te, As.

1. Have students write the name and symbol of each element found and locate its position on a copy of the periodic table.

The first attempt above found 16 element symbols. The names of these elements are lithium, iron, silicon, arsenic, xenon, aluminium, lutetium, yttrium, tantalum, radon, samarium, titanium, tellurium, sulfur, iodine, darmstadtium.

1. Have students challenge a friend to do better.