

## Element Symbols

### Element

A pure substance that cannot be chemically broken down into simpler substances.

### Atom

The smallest component of matter. The smallest part of an element that still has the properties of that element.

An element symbol is an abbreviation used to identify the element.

Element symbols for most elements consist of one or two letters. The first letter is always capitalized and the second letter is always lower case. The letters used in the symbol for an element are chosen as follows:

1. Use the first letter of the name of the element.
2. If the first letter is already the symbol for another element, then use the first two letters instead.
3. If the first two letters are already the symbol for another element, then use the first and third letters instead.
4. etc.

Element symbols for elements that are newly discovered, and have not been named yet, consist of three letters. The rules for naming these are included on the handout *Element Symbols and Other Stated Information*.

Some elements have symbols that don't match the letters of their names. For example, the symbol for mercury is Hg. This occurs when the symbol is based on the name of the element in a language other than English. A list of elements whose symbols are based on other languages is included on the handout *Element Symbols and Other Stated Information*.