**ACTIVITY: Element rap**

**Activity idea**

In this activity, students become familiar with the names and symbols of the chemical elements by creating a rap or poem.

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

* recall the names and symbols of at least 20 elements of the periodic table
* demonstrate a basic understanding of the structure of the periodic table (rows and groups)
* explain the meaning of the terms halogen, alkali metal and inert gas.

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**Introduction/background**

In 1959, Tom Lehrer, a musical humorist, wrote a song that recites the names of all the chemical elements known at the time. It goes up to nobelium – element 102. The song is sung to the tune of the ‘Major-General’s Song’ from the *Pirates of Penzance* by Gilbert and Sullivan.

After listening to *The Elements* song, students need to prepare an element rap, song, poem or acrostic and to perform it in class.

**What you need**

* Access to a suitable version of *The Elements* song by Tom Lehrer (for example, <http://www.privatehand.com/flash/elements2.html)>
* A copy of the periodic table (with names and symbols of the elements)

**What to do**

1. As a class listen to *The Elements* song by Tom Lehrer (<http://www.privatehand.com/flash/elements2.html)>.
2. Have students work individually or in groups to take any aspect of the periodic table and prepare a rap, song, poem or acrostic to help explain it. An aspect could be:

* the first twenty elements
* Group 17 – the halogens
* the transition metals
* the dietary essential elements
* Group 18 – the inert gases
* Row 3 elements
* the transuranium elements.

1. Have students perform/display the item for the rest of the class.

***The Elements* lyrics**

There’s antimony, arsenic, aluminum, selenium,  
And hydrogen and oxygen and nitrogen and rhenium,  
And nickel, neodymium, neptunium, germanium,  
And iron, americium, ruthenium, uranium,  
Europium, zirconium, lutetium, vanadium,  
And lanthanum and osmium and astatine and radium,  
And gold and protactinium and indium and gallium,  
And iodine and thorium and thulium and thallium.  
There’s yttrium, ytterbium, actinium, rubidium,

And boron, gadolinium, niobium, iridium,

And strontium and silicon and silver and samarium,

And bismuth, bromine, lithium, beryllium and barium.

There’s holmium and helium and hafnium and erbium,

And phosphorus and francium and fluorine and terbium,

And manganese and mercury, molybdenum, magnesium,

Dysprosium and scandium and cerium and caesium.

And lead, praseodymium, and platinum, plutonium,

Palladium, promethium, potassium, polonium,

And tantalum, technetium, titanium, tellurium,

And cadmium and calcium and chromium and curium.

There’s sulfur, californium, and fermium, berkelium,

And also mendelevium, einsteinium, nobelium,

And argon, krypton, neon, radon, xenon, zinc and rhodium,

And chlorine, carbon, cobalt, copper, tungsten, tin and sodium.

These are the only ones of which the news has come to Harvard,

And there may be many others, but they haven’t been discovered.