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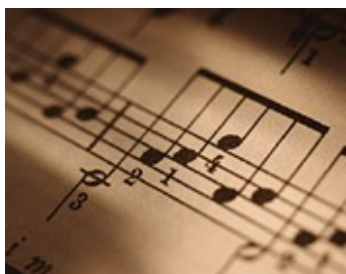
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Science Hits



Grade Level 6-8, 9-12

Subject Area physical science

Curriculum Focus

music, language arts, chemistry

Duration 1-2 class periods

Objective

Students will listen to a recording of *The Elements* by Tom Lehrer (1960) and write their own song for recalling scientific information.

Materials

A wide variety of information sources including Internet sites, magazines and books, and electronic encyclopedias and databases, and writing tools.

Procedure

- Listening to *The Elements***
Have your students listen to *The Elements* by Tom Lehrer and answer the questions that follow.

The Elements

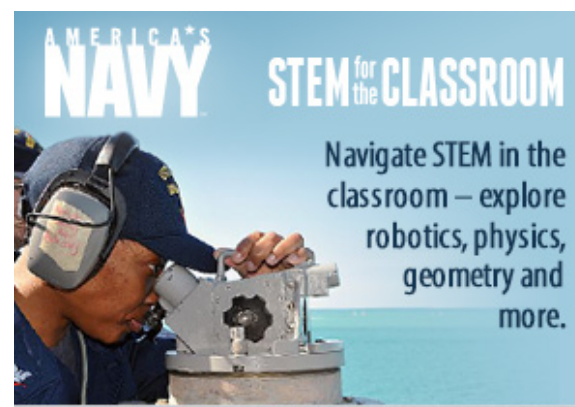
<http://school.discoveryeducation.com/lessonplans/activities/sciencehits/>

★ Related Materials

History through Literature: World Wars & the Quest for Order (1900 to 1955) DVD

Product Type: DVD
Price: 94.95

Chronicles the dramatic events of the first fifty years of the century: the ravages of two wars, the hardship of





(running time: 1:23)

[Text Version](#)

To hear this audio file, you need the RealPlayer plug-in. [Download it](#) now.

Questions

How many elements were known at the time the song was written?

Are the elements in the song grouped in any particular order? If so, what?

What repeating patterns did the songwriter use? How many elements have been discovered since? And why is there some debate over the number of elements in the periodic table?

2. Writing Science Hits

Direct students to use [The Elements](#) as a guide to writing their own science song. Whether they select a tune and then try to fit the words to it or start with the lyrics, encourage them to look for patterns of repetition, and to be creative. They may wish to record the song and play it back to further assist their memories. Although the suggested topics below are chemistry related, the possibilities are endless.

The Elements Revisited

This could include newer elements, their properties, atomic number, or symbols.

Names and Discoveries in the History of Chemistry

Here are some examples:

Benjamin Franklin (1706-1790) studied electricity and invented the lightning rod.

Jons Jakob Berzelius (1779-1848) discovered several elements, developed the modern system of symbols in chemistry, and carefully measured the atomic weights of several elements.

Dmitri Mendeleev (1834-1907) arranged and classified the elements into what is now called the periodic table.

Electron Shells in Atoms

Here are some examples:

He $1s^2$

Ne $1s^2 2s^2 2p^6$

Ar $1s^2 2s^2 2p^6 3s^2 3p^6$

Do you see a pattern developing?

Ionic Compounds

A few examples include:

Na^+Cl^- (sodium chloride)

$Fe^{2+}O^{2-}$ (ferrous oxide)

Molecular Compounds

Here are some examples:



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NF₃ nitro**trifluoride**
 N₂O₄ **d**initro**gen**t**e**t**r**oxide

SO₃ sulfur**tr**ioxide

The letters of the Greek alphabet

Other Science Themes

Bacteria ♦ the parts of the cell and how each functions (e.g., cell membrane, endoplasmic reticulum, golgi bodies, vacuoles, ribosomes, lysosomes, mitochondria, cilia, flagella, centrioles)

The Objects of the Solar System ♦ the planets, asteroids, and moons.

Extension

Invite students to create music videos or perform their songs in front of an audience. When the presentations are complete, have students discuss what makes a good song.

Credits

♦ The Elements ♦ appears courtesy of Tom Lehrer. It ♦s available on the Rhino Records CD, *Songs and More Songs by Tom Lehrer*.

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