



Activities with parents on the computer (APC)

The chemical elements through Music

Lucinda Cardoso¹, Carla Morais², Luciano Moreira³

1-Escola Básica Adriano Correia de Oliveira, 2-Dep de Química e Bioquímica da Faculdade de Ciências – UP, 3 – Faculdade de Engenharia da UP

A – Dear students and parents / family



This paper aims to explore the advantages of using music to study chemistry, including the properties of chemical elements.

Music can help in teaching a particular subject, to the extent that it opens up possibilities for the second path than is nonverbal.

It is important to do all the records on paper and attach it to this document. Section C is to be performed by the student individually. The sections D, E and F are relate to the tasks proposed to students and parents together.

B – Context



Like Music, Chemistry is everywhere. Chemistry is present in the environment, technology, health, food and in various fields that surround us. Music also is everywhere and is always present at the most important moments of our lives. Why don't we join the two and learn some chemistry through music?



C – Individual Work area



Remember some of the approaches made in class, answering the questions that follow. To do this you can search the Internet.

C1. How many chemical elements are there in the periodic table?

C2. The vertical columns of the periodic table is called groups.

These groups consist of elements with similar chemical properties. Some of these groups of elements are referred to as "families".



Write the name of these families and the names of the elements that they contain.

C3. Select a chemical element from one of the families which you have studied in C2.

Complete the table on the selected element, for this you can use the resources available in: <http://www.rsc.org/periodic-table> and <http://www.periodicvideos.com/>

| | |
|---------------------------------------|--|
| Chemical symbol | |
| Atomic number | |
| PT family to which it belongs | |
| Some physical and chemical properties | |
| Where can it be found | |

C – Individual Work area (continuation)



C4. At this point you will explore the musical soundcloud platform and you learn how to upload a sound recording from the phone to this platform.

Write the chemical element features selected and summarized in C3.

You should therefore use the tutorial which is attached (Attachment I).

D – Collaborative Work area



This area is to be worked together with your family.

D1. Write a poem about the chemical element chosen. Do not forget that it should be taken into account the characteristics / properties of that element. (See the summary prepared in C3.)

Can see some examples of chemical poems on websites:

<http://sciencepoems.net/sciencepoems/chemicalchange.aspx#.VpiwEZqLTct>

<http://sciencepoems.net/index.html#chemistry>

Tip for those uninspired: Choose a poem or popular stanza that can be adapted to the chemical.

D2. Select a melody withdrawal from soundcloud to musicalize this poem.

D3. Try to tell the poem with the sound of music chosen. Ask your family to record with the phone this poem with the music.

D4. Tell your family how to upload the recording to the soundcloud.



E – To continue



E1. As you know recently scientists added four elements to the Periodic Table.

Investigate what these elements are. Which is its atomic number? Do they exist in the nature?

E2. There is a cube "Element cube" that contains 62 natural elements that occur on our planet.

Check in <https://hacked.com/element-cube-contains-62-natural-elements/> if the selected element C3 is part of that cube.

F – Evaluation of the participants



Thank you! First of all, we want to thank you for your collaboration and for all the effort you put in carrying out this activity. Please complete the questionnaires for parents (Attachment II) and for students (Attachment III).

Other observations: _____

Thankfully, the teacher
Lucinda Cardoso