# Parents' Activities on the Computer (APC)

## The chemical elements through Music

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## A – Dear students and parents / family members

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

Music can help teaching a specific subject, as long as it gives the teacher the possibility of using a different path: a nonverbal resource.

It's important to do all the answers on a paper and attach it to this document. Section C is performed by the student himself. The sections D, E and F are related to the tasks done by students and parents together.

### **B** – Context

Like Music, Chemistry is everywhere. Chemistry is in the environment, technology, health, food and it surrounds us in every field. Music is also everywhere and has always been part of most important moments of our daily life. Why don't we join both and learn chemistry through music?

### C – Individual work area

Remember some of the approaches developed in class and answer the following questions. To do this you can search the Internet.

- C1. How many chemical elements are there on the Periodic Table?
- C2. The vertical columns on the periodic table are called groups. These groups are formed by elements with similar chemical properties. Some of these groups of elements are referred to as "families".

Write the name of those families and the names of the contained elements.

C3. Select a chemical element from one of the families you have studied in C2. Complete the table on the selected element. 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 it can be found	











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## C – Individual work area (continuation)

C4. Now you're going to explore the audio Soundcloud platform and learn how to record and upload sounds from your mobile phone to this platform.

Record the features of the chemical element you have 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 done together with your family.

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

You can look for some examples of chemistry poems on these websites: <u>http://sciencepoems.net/sciencepoems/chemicalchange.aspx#.VpjwEZqLTct</u> <u>http://sciencepoems.net/index.html#chemistry</u>

A tip for those who are less inspired: choose a poem or a stanza already known that might be adapted to the chemical element.

D2. Upload a melody from Soundcloud to musicalize the poem.

D3. Try to read your poem and at the same time listen to the music you've chosen. Ask your family to grab your mobile device and record that moment.

D4. Tell your family how to do the upload of this recording to the soundcloud.

### E – To continue

- E1. As you already know, four new elements were added recently 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 planet Earth. Check in <u>https://hacked.com/element-cube-contains-62-natural-elements/</u> if the selected element in C3 is part of that cube.









## F – Participants Evaluation



Thank you! First of all, we would like to thank you for your collaboration and engagement. Please, fill in the questionnaires for parents (Attachment II) and for students (Attachment III).

Other comments: \_\_\_\_\_\_

Thankfully, the teacher Lucinda Cardoso