

Assignment – A Periodic Table Elemental CD Cover



Congratulations Vaughan! We have been selected by *Chem13* and the *University of Waterloo* to participate in the **2019 International Year of Chemistry – Timeline of the Elements** project! Students come from 26 different countries and range from elementary to PhD students!

In this assignment, you will research, design and create an **original elemental tile**. Our version of the project will culminate in an art installation that is a mosaic of science and art. The elemental tiles will be mounted on the wall in the Science wing at Vaughan in the formation of the Periodic Table.

Learning Goals

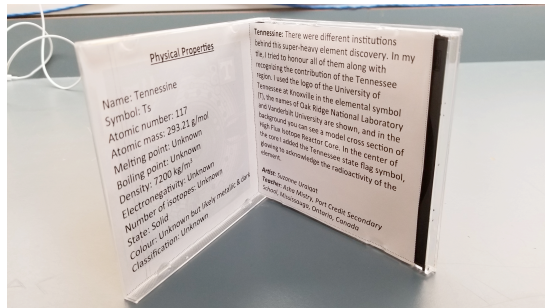
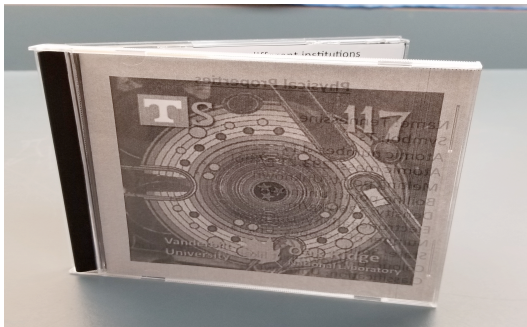
- communicate ideas, in writing, diagrams and through the use of images
- demonstrate an understanding of the properties of an element in the periodic table.
- select, organize, and record relevant information on a research topic from a variety of appropriate sources, including electronic, print, and/or human sources, using suitable formats and an accepted form of academic documentation

Success Criteria

In order to successfully complete the task, your elemental tile will:

1. Complete the provided template (5 inches x 4.75 inches). The booklet should be able to slide in and out of the cover of a CD case. *****NO CD CASE IS NEEDED!*****
2. **Part 1: Artwork**
 - Include the name, symbol of the element and the atomic number.
 - A neat and colourful representation of your element. Your tile should be in FULL colour. You can use pencil crayons, markers, print black outlines to colour-in, use potatoes to make ink stamps...
 - Include artwork that conveys **something relevant and special** about the element. Refer to the description in Part 3 and exemplars shown by your teacher for ideas.
 - Include a 1cm border all around the tile indicating which family group the element belongs to. Refer to the legend below:
 - Alkali Metals: Red
 - Alkaline Earth Metals: Orange
 - Transition Metals: Yellow
 - Basic Metal: Bright Green
 - Metalloids: Aqua Blue
 - Non-Metal: Light Blue
 - Halogens: Light Purple
 - Noble Gases: Dark Purple
 - Lanthanides: Lime Green
 - Actinides: Dark Green
 - Unknown: Grey
3. **Part 2: Atomic Properties**
 - **List** the following: Name, Symbol, Atomic number, Atomic mass, Melting point, Boiling point, Density, Electronegativity, Number of isotopes, State, Colour, Classification
4. **Part 3: Description**
 - Include a typed description (~100 words) of the **meaning/relevance** of your artwork. This should NOT be a list of properties, features, uses, etc. It should include the process used, concept and history behind the creative tile.
5. **Part 4: References/Resources/Citations**
 - On the back of the booklet, list your references in APA format.
 - Refer to the Vaughan SS Library google site for referencing help, research links (databases, websites) and citation generators
 - bit.ly/vssllibrary

Exemplar:



References

Haynes, W. M. (2011). *CRC Handbook of Chemistry and Physics*, 91st edition: <http://www.hbcponline.com/> Retrieved April 7, 2011

Winter, M. (2010). *Home of the Periodic Table*. Retrieved April 8, 2011, from Web Elements: <http://www.webelements.com/>



Physical Properties

Name: Tennessine
 Symbol: Ts
 Atomic number: 117
 Atomic mass: 293.21 g/mol
 Melting point: Unknown
 Boiling point: Unknown
 Density: 7200 kg/m³
 Electronegativity: Unknown
 Number of isotopes: Unknown
 State: Solid
 Colour: Unknown but likely metallic & dark
 Classification: Unknown

Tennessee: There were different institutions behind this super-heavy element discovery. In my title, I tried to honour all of them along with recognizing the contribution of the Tennessee region. I used the logo of the University of Tennessee at Knoxville in the elemental symbol (T), the names of Oak Ridge National Laboratory and Vanderbilt University are shown, and in the background you can see a model cross section of High Flux Isotope Reactor Core. In the center of the core I added the Tennessee state flag symbol, glowing to acknowledge the radioactivity of the element.

Artist: Suzanne Uraiqat
Teacher: Asha Mistry, Port Credit Secondary School, Mississauga, Ontario, Canada

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Name: _____

Element #: _____

Due Date: _____

Element Name: _____

Marking Scheme:

Correct size & order, 4 pages	0	1	2	3
Name, Symbol & Atomic Number	0	1	2	3
Neat, Colourful, and correct border colour	0	1	2	3
Creative and original	0	1	2	3
Relevance of the Artwork (~100 word description)	0	2	4	6
Atomic Properties (12 x 0.5 marks)	0	2	4	6
Grammar and Spelling	0	2	4	
References/Resources/Citations (APA Format)	0	1	2	

