

Lesson Title: Mendeleev Autobiography Writing Assignment**Unit: Periodic Table****Grade Level: 7th or 8th grade****Estimated time requirement: Three 50 minute classes****Summary (25-50 words):**

Students perform an internet-based research of Dmitri Mendeleev and compose a autobiography.

Objectives:

- Students learn how the original periodic table was developed
- Students identify elemental properties used by Mendeleev to organize the original periodic table.

Content Standards:**Texas Middle School Science Grade 8**<http://www.tea.state.tx.us/rules/tac/chapter112/ch112b.html>

- 7.7B The student is expected to describe physical properties of elements and identify how they are used to position an element on the periodic table
- 8.9B The student is expected to interpret information on the periodic table to understand that physical properties are used to group elements
- 8.9D The students is expected to identify that physical and chemical properties influence the development and application of everyday materials such as cooking surfaces, insulation, adhesives, and plastics.

Texas Technology Applications Grade 6-8<http://www.tea.state.tx.us/rules/tac/chapter126/ch126b.html>

- 1: The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:
- 1A: demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components
- 1C: demonstrate the ability to select and use software for a defined task according to quality, appropriateness, effectiveness, and efficiency
- 1F: perform basic software application functions including, but not limited to, opening an application program and creating, modifying, printing, and saving documents
- 2: The student uses data input skills appropriate to the task. The student is expected to:
- 2A: demonstrate proficiency in the use of a variety of input devices such as mouse/track pad, keyboard, microphone, digital camera, printer, scanner, disk/disc, modem, CD-ROM, or joystick
- 4: The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision.
- 5A: The student is expected to: identify, create, and use files in various formats such as text, bitmapped/vector graphics, image, video, and audio files
- 7B: The student is expected to: create and edit spreadsheet documents using all data types, formulas and functions, and chart information
- 7D: The student is expected to: demonstrate proficiency in the use of multimedia authoring programs by creating linear or non-linear projects incorporating text, audio, video, and graphics
- 8E: The student is expected to: integrate acquired technology applications skills, strategies, and use of the word processor, database, spreadsheet, telecommunications,

<p>draw, paint, and utility programs into the foundation and enrichment curricula</p> <ul style="list-style-type: none"> • 10A: The student is expected to: use productivity tools to create effective document files for defined audiences such as slide shows, posters, multimedia presentations, newsletters, brochures, or reports • 10D: The student is expected to: demonstrate appropriate use of fonts, styles, and sizes, as well as effective use of graphics and page design to effectively communicate • 11A: The student is expected to: publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video
<p>Assessment:</p> <ul style="list-style-type: none"> • The class determines and votes on a scoring rubric appropriate for the assignment. • Students receive two scores: teacher assessment based on class rubric and peer assessment based on class rubric. • These two scores will be average together for the final score.
<p>Materials:</p> <ul style="list-style-type: none"> • Glencoe Texas Grade 8 Science Textbook • Internet • “History of Periodic Table” Powerpoint • Microsoft Word • Mendeleev Autobiography writing assignment • LCD projector • Document viewer • Imagination
<p>Resources:</p> <ul style="list-style-type: none"> • http://web.buddyproject.org • Glencoe Texas Grade 8 Science Textbook
<p>Prior Knowledge/Skills: Prior use of Microsoft Word, Basic knowledge in research, Prior use of internet searching</p>
<p>Procedures:</p> <ul style="list-style-type: none"> • View the “History of Periodic Table” PowerPoint presentation and review each concept with the students using the LCD player • Show and discuss the writing assignment using the document viewer or LCD projector • Conduct research on Mendeleev using the internet • Produce a finished product for the writing assignment on Microsoft Word
<p>Modifications:</p> <ul style="list-style-type: none"> • Reduce the length of the writing assignment for weaker students
<p>Technology Infusion:</p> <ul style="list-style-type: none"> • LCD player, Document Viewer, Internet, Microsoft Word
<p>Cultural Connections:</p> <ul style="list-style-type: none"> • Students are exposed to the finding of elements by scientist located all over the world.
<p>Family Connection:</p> <ul style="list-style-type: none"> • Hold a family night in which student share their autobiographies with their family.