

**Lesson Title: Element Advertising Commercial**

**Unit: Periodic Table**

**Grade Level: 7<sup>th</sup> or 8<sup>th</sup> grade**

**Estimated time requirement: Six 50 minute classes**

**Summary (25-50 words):**

Students are put into teams and perform internet-based research on an element from the periodic table to develop and present a two-minute advertisement for that element.

**Objectives:**

- Students learn about elements and atomic structure.
- Students learn how to read and interpret the periodic table of the elements including information about the many families and groups of elements contained in the periodic table.
- Students identify the properties of metals, nonmetals, and metalloids.

**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, draw, paint, and utility programs into the foundation and enrichment curricula
- 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

**Assessment:**

- 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.

**Materials:**

- Glencoe Texas Grade 8 Science Textbook
- Internet
- “Periodic Table of Elements” PowerPoint
- Microsoft Office Programs
- Element Advertisement Commercial Assignment
- LCD projector
- Document viewer
- Movie Maker
- Digital Video Camera
- Imagination

**Resources:**

- <http://web.buddyproject.org>
- Glencoe Texas Grade 8 Science Textbook

**Prior Knowledge/Skills:** Prior use of Microsoft Office Programs, Basic knowledge in research, Prior use of internet searching, Prior use of the digital video camera, Prior use of Movie Maker

**Procedures:**

- View the “Periodic Table of Elements” PowerPoint presentation as a review using the LCD player.
- Show and discuss the commercial advertisement assignment using the document viewer or LCD projector.
- Conduct research on the element drawn using the internet.
- Record a commercial using the Digital Video Camera.
- Produce a commercial using Movie Maker.
- Post finished product on teacher website.

**Modifications:**

- Reduce the time length of the assignment for weaker students. Also, pair weaker students with stronger students.

**Technology Infusion:**

- LCD player, Document Viewer, Internet, Microsoft Word, Digital Video Camera,

Movie Maker

**Cultural Connections:**

- Students are exposed to the culture of scientists who aided in production of the periodic table.

**Family Connection:**

- View the website at home with family.