

### Skills and Strategies

- Planning and Conducting
- Processing and Analyzing
- Evaluating
- Communicating

### What You Need

- Internet access
- print sources of information on your element
- other materials to be determined by your plan, such as posterboard, markers, other art supplies, a smartphone for recording video

## Present an Element at ElementCon

As a world-renowned expert on a particular element, you have been invited to present information about that element at ElementCon—an annual convention for fans of the periodic table.

### Question

What can you learn about the history, properties, and applications of an element?

### Procedure

1. Your teacher will assign you an element. Use print and online resources to find out all about your element. Be sure to answer the following questions as you research:
  - a) What is the name, symbol, and number of the element? What are the origins of its name and symbol?
  - b) When and how was the element first discovered?
  - c) What are the physical and chemical properties of the element, including the following, if applicable:
    - melting and boiling point
    - density
    - state at room temperature
    - colour
    - texture
    - hardness or softness
    - odour
  - d) Where on the periodic table is your element found? Is it a metal, a non-metal, or a semi-metal?
  - e) What features define an atom of your element?
  - f) Where is the element found?
    - Where in the world and in the universe is it found?
    - Can it be found pure or is it always in compounds?
    - What types of compounds does it form?
    - How can the element be isolated from its compounds?
  - g) How is the element used today and how was it used in the past? What is the economic importance of the element in Canada or elsewhere in the world?

2. Take notes to record the information you find. Record the sources of information you used.

### Process and Analyze

1. Did you find conflicting information as you researched? Give one example. How did you decide which source to use?
2. Evaluate the sources you used. Were they
  - trustworthy? Explain how you know.
  - current? Explain how you know.

### Apply and Communicate

3. Make a plan to decide how you will present your findings at your “booth” at the ElementCon. You may use one or more of the following ideas to present the information you found.
  - Put up an informative poster with tables and images.
  - Use storytelling to creatively reveal properties and other information about your element.
  - Make a display showing a model of an atom of your element.
  - Create a comic book in which your element is the superhero, with powers and weaknesses related to its chemical and physical properties.
  - Write a clickbait-style “Which element are you?” quiz for classmates to try that has questions relating to the properties of your element that distinguish it from others.
  - Collect and display items that contain your element or that relate to your element in some other way.
  - Make a video in which you explain why your element is interesting, unique, and important.
  - Make a video re-creating the discovery of your element.
  - Create a slide show with photos, text, and music relating to your element.
4. Have your teacher approve your plan before you design your booth. On ElementCon day, your teacher will divide the class in half. Half the class will visit booths, while the other half will present. Then the groups will switch.