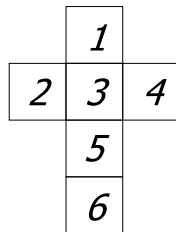


Instructions

You will research one element and create a cube of information that will fit onto a larger 3D periodic table. Each student will research a different element. The cube has six sides, and each side will contain the following information:

- Technical Information (1)
- B-R Diagram (2)
- Physical Properties (3)
- Chemical Properties (4)
- Interesting Facts (5)
- Uses/Production (6)



NOTE!

- ① All the information should be presented in point form. You may find "chemicalelements.com" or similar sites very useful.
- ② Be sure to label each side with the appropriate heading (i.e. Technical Info, B-R Diagram, ...).
- ③ The atomic mass should be rounded to a whole #.
- ④ Physical properties are those that can be observed without changing the identity of the substance. Color, density, and hardness are examples of physical properties.
- ⑤ Chemical properties are those that describe how a substance changes into a completely different substance. Flammability and corrosion/oxidation resistance are examples of chemical properties. You will need to be specific with your element.
- ⑥ An example of a chemical reaction using (a) words and (b) chemical formulas are:
 (a) sodium + chlorine → sodium chloride
 (b) $\text{Na} + \text{Cl} \rightarrow \text{NaCl}$
 * These examples cannot be re-used.
- ⑦ The interesting facts must be different than any information already presented.
- ⑧ Make sure you reference your sources correctly - refer to the PECE Virtual Library website for assistance:
<http://blogs.hpedsb.on.ca/peci/library/>
- ⑨ Make sure (i) your name is located on the panel with the Technical Information and (ii) the marking scheme is attached. Otherwise, marks will be deducted!

Student:	Element:
TECHNICAL INFO <ul style="list-style-type: none"> • student name & marking scheme attached • name & chemical symbol • atomic mass & atomic number in atomic notation format ($\frac{A}{Z}X$) • location (period & group) • classification (metal, nonmetal, or metalloid?) 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
B-R DIAGRAM <ul style="list-style-type: none"> • correct type of diagram • correct # protons & # neutrons in nucleus • correct # electrons in orbit 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> x2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
PHYSICAL PROPERTIES <ul style="list-style-type: none"> • melting & boiling point • density, state & appearance (at room temperature) • proper units included with the physical properties stated 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
CHEMICAL PROPERTIES <ul style="list-style-type: none"> • 2 chemical properties • 1 chemical reaction that involves the element expressed using (a) words and (b) chemical formulas (see example) 	<input type="checkbox"/> <input type="checkbox"/> (a) <input type="checkbox"/> <input type="checkbox"/> (b) <input type="checkbox"/> <input type="checkbox"/>
INTERESTING FACTS <ul style="list-style-type: none"> • 4 "interesting facts" about the element (possible topics include a history of the element - who discovered/how/when/where) • reference(s) is/are properly cited 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
USES/PRODUCTION <ul style="list-style-type: none"> • 3 uses of the element or compounds containing the element • where is the element found or how is it manufactured • reference(s) is/are properly cited 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
✓ = correct/present/good ✗ = wrong/absent/poor	
PRESENTATION <ul style="list-style-type: none"> • Neatness (neat, printed, pen/marker/computer,...) • Organization (headings, colour, easy to find the info, ...) • Grammar & Spelling (-1 for each mistake) 	0 + 1 + 2 + 3 0 + 1 + 2 + 3 0 1 2 3
0 = poor 1 = good 2 = very good 3 = excellent	
TOTAL <input type="checkbox"/>	
/50	