

Interactive Periodic Tables – Visit the following websites and use them to explore more about the periodic table. You can use these websites to help you complete the assignment however you will ALSO need to use other websites.

- http://www.pbslearningmedia.org/asset/phy03_int_ptable/
- <http://www.pbs.org/wgbh/nova/physics/periodic-table.html>
- <http://www.ptable.com/>

Description of the Element You Chose

1. What is the name of your chosen element? (include multiple languages)
2. What is the chemical symbol of your chosen element?
3. What is the origin (or meaning) of the name of your chosen element?
4. What does the element look like? (describe or draw)
5. What are the sources of your chosen element?

Atomic Structure

6. What is the atomic number of your element?
7. What is the atomic mass of your element?
8. How many protons does your element contain?
9. How many neutrons does your element contain?
10. How many total electrons does your element contain?
11. How many valence electrons does your element contain?
12. What is your element's atomic size (radius)? Is it a relatively large or small atom?
13. What are (how many) the known isotopes of your element?
14. Are there any isotopes of your element that are particularly useful? How are they useful? (for example: carbon-14 is used in dating old plant and animal remains and technetium-99 is used to medically image the skeleton and heart muscle)
15. What is the electron configuration of your element?
16. Does your element occur in nature or is it man-made?

Physical and Chemical Properties

17. What is the density of your element?
18. What is the melting point of your element?

19. What is the boiling point of your element?
20. What state of matter is your element at room temperature?
21. What color is your element?
22. Is your element a metal, non-metal, or metalloid?
23. Does your element have a crystalline structure?
24. How much does your element cost? (include units like \$/kg or \$/g)
25. Describe how the element reacts with other elements. (for example: is your element corrosive, combustible, or flammable..... or is it inert)
26. Does your element form positive ions (cation) or negative ions (anion)?
27. Does your element form ionic bonds, covalent bonds, or metallic bonds?

History

28. Who discovered or created your element?
29. When was your element discovered or created?
30. Where was your element discovered or created?
31. List some biographical information regarding the person who discovered your element.
32. Are there any traditional historic uses? (For example: was it used in alchemy or used to make weapons or jewelry or was it used medicinally?)

Periodic Table Connections

33. What period (horizontal row) is your element in?
34. What is the group (vertical column) number your element is in?
35. Does your elements group have a common name? (a family name)
36. What are the common properties of the group your element is found in?

Uses

37. What is the element or its compounds used for?
38. Why is your element important?
39. Is there a biological role of your element?
40. Is your element dangerous, if so in what way?