

PERIODIC TABLE

Remember:

atomic number – number of protons or electrons in an atom

mass number – number of protons and neutrons in an atom; mass of element

group or family – a column in the periodic table (elements with similar properties)

period – a row in the periodic table (elements with increasing atomic numbers)

isotope – any atoms having the same number of protons but different number of neutrons

USE THE INTERNET SITES PROVIDED TO ANSWER EACH QUESTION BELOW. YOU MUST VISIT ALL THREE SITES.

Content Questions	http://www.webelements.com/	http://www.chemicalelements.com	http://pearl1.lanl.gov/periodic/default.htm
How many groups are there in the periodic table?	<u>18</u>	<u>18</u>	18
List the elements by symbol in the first family.	<u>H, Li, Na, K, Rb, Cs, Fr</u>	<u>H, Li, Na, K, Rb, Cs, Fr</u>	<u>H, Li, Na, K, Rb, Cs, Fr</u>
How many periods are there in the periodic table?	<u>7</u>	<u>7</u>	7
List the elements by symbol in the third period.	<u>Na, Mg, Al, Si, P, S, Cl, Ar</u>	<u>Na, Mg, Al, Si, P, S, Cl, Ar</u>	<u>Na, Mg, Al, Si, P, S, Cl, Ar</u>
What is the atomic number of nitrogen?	<u>7</u>	<u>7</u>	7
What is the atomic number of titanium?	<u>22</u>	<u>22</u>	22
What is the mass number of sulfur?	<u>32.065 – listed as atomic weight</u>	<u>32.066</u>	32.07
What is the mass number of iron?	<u>55.845 – listed as atomic weight</u>	<u>55.845</u>	55.85
How many electrons does aluminum have?	13	<u>13</u>	13

How many electrons does potassium have?	19	<u>19</u>	19
How many protons does zinc have?	30	<u>30</u>	30
How many protons does copper have?	29	<u>29</u>	29
How many neutrons does argon have?	22 (39.948-18 = 22)	<u>22 (40 - 18 = 22)</u>	22 (39.95-18)
How many neutrons does iodine have?	73 (126.90447 - 53 = 73)	<u>73 (126 - 53 = 73)</u>	73 (126.9-53 = 73)
How many elements are there in the periodic table?	118	<u>118*</u> <i>* Depending on the version (when it was revised) there are between 112-118 known elements.</i>	118
Web Site Critique Questions (Media Literacy)	http://www.webelements.com/	http://www.chemicalelements.com	http://pearl1.lanl.gov/periodic/default.htm
What is the <u>target audience</u> of the site? How do you know?	Coverage is such that professional scientists and students at school interested in chemistry and other sciences will all find something useful. Stated in notes section of home page.	Students since it was created as a science project by an 8 th grade student. Found info in About this site.	A Resource for Elementary, Middle School, and High School Students. It is stated on the home page.
What is the <u>message</u> of the site? How do you know?	WebElements aims to be a high quality source of chemistry information on the WWW relating to the periodic table. Stated in notes section of home page.	The message is to provide basic information about elements. Deduction.	Message is to provide basic information on the elements in the periodic table for students. Deduction.
What is the <u>bias</u> of the site? How do you know?	The bias is for professional scientists and students. Stated in notes section of home page.	The bias is for students to find basic information about an element because it has many links to basic data. Deduction.	The bias is to provide students with basic information. Deduction from fact that there are few diagrams or in depth detail about any of the elements.
How does the site present information? Is it effective? Why or why not?	One clicks on an element to get the essentials followed by a description and cartoons, followed by how it was isolated. Links on the left side take you to	Home page contains table, on left hand side you find links to change the view depending on what you want to look at, such as proton, electron, neutron, boiling point, etc.	Home page contains the table and one needs to click on element to get more information. There is only one page per element so this information is basic. It provides the basics needed for students.

	<p>various properties. Links on the right side take you to adjacent elements.</p> <p>Yes, it is easy to navigate if you understand the terminology and know the essentials of the periodic table.</p>	<p>Yes, it is because one can quickly go to an area to find an answer. Yet, if you are looking for several different pieces of information one must go back and forth, which can be difficult if your server is slow.</p> <p>The table has Show table with particular links such as links to proton, electron and neutron info without needing to calculate it on left side of page</p> <p>The table has links to different elemental groups.</p> <p>On top shows other links to move easily to other info about an element.</p>	
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Extra credit: Who invented the periodic table? *Dimitri Mendeleev*