**Webquest/Atoms 2 and PT**

1.  During a phase change, what happens to the temperature of the matter?

<http://www.kentchemistry.com/links/Matter/HeatingCurve.htm>

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2.  List the three basic parts of an atom, along with their charges.

<http://www.chem4kids.com/files/atom_structure.html>

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3.  Define molecule.  Give two examples of specific molecules.

<http://www.historyforkids.org/scienceforkids/chemistry/atoms/molecules.htm>

Definition-

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b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4.  Explain what the following scientist did to expand our knowledge about atoms:

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Dalton: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Bohr: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**5.  How were the elements on the** [**periodic table**](http://www.ducksters.com/science/periodic_table.php) **arranged? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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6.  Why is it that we [cannot see an atom with our  eyes alone](http://www.neok12.com/video/Atom/zX65755c0644717c71430e63.htm)?  Why do we need special types of scientific machinery in order to study the atoms and their parts?  What types of machinery could  be used?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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7. What is the [name of the scientist](http://www.factmonster.com/ipka/A0905215.html) that is credited with creating the first working Periodic Table in the 1860's.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.  If you look at the [periodic table](http://periodic.lanl.gov/index.shtml), make one observation about the elements that you are looking at from the top left moving across like a typewriter towards to right,  then go to the next line and do the same thing until you get to the last element in the bottom right hand corner  What is one observation you can make?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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9. Atoms are considered neutral meaning they have equal protons and electrons and therefore we can easily locate them on the [periodic table](http://periodic.lanl.gov/index.shtml) because we will know their atomic number.  Remember their atomic number is the number of protons an element has.

 Tell the following elements by the atomic number given:

                11  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_      24 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

     44 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   127\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10..  On the periodic table, gases are found on what side of the table? (these are called non-metals) [click here for periodic table](http://chemistry.tutorvista.com/inorganic-chemistry/metals-non-metals-metalloids.html)

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11.  On the periodic table, metals make up the majority of the table.  What side do the metals begin on?

[click here for periodic table](http://chemistry.tutorvista.com/inorganic-chemistry/metals-non-metals-metalloids.html)

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12. What are metalloids?  How many are there?  Name them.

<http://www.chemicalelements.com/groups/metalloids.html>

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13. Name two properties of a metal, a non-metal, and a metalloid.

 [Periodic table](http://chemistry.tutorvista.com/inorganic-chemistry/metals-non-metals-metalloids.html)

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14.  Explain what [valence electrons](http://www.dummies.com/how-to/content/why-are-valence-electrons-important.html) are.

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 15. How do valence electrons relate to dot diagrams (also known as [Lewis Dot Diagrams](http://www.shodor.org/unchem/basic/lewis/))?  Draw two dot diagrams below

 16.  Watch the [video link](https://www.youtube.com/watch?v=hdCDvs9mvMQ)  about Bohr models.  Draw the Bohr model of an oxygen atom.  How many electrons go in the first shell?  How many remaining electrons go in the outer most shell?

17.  The [number of protons](https://www.princeton.edu/~achaney/tmve/wiki100k/docs/Atomic_number.html) of an atom is equal to the atoms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the periodic table.

18.  To [calculate the atomic mass](https://www.boundless.com/chemistry/textbooks/boundless-chemistry-textbook/atoms-molecules-and-ions-2/the-structure-of-the-atom-34/atomic-number-and-mass-number-201-11406/) of an atom you must add the sub atomic particles of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ together.

19.  Do a Google search about the atom or the periodic table.  There are many game sites that relate to the topic.  Find one, write it down below and review it in the space provided.

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 20.  Review this activity.  What did you like?  How would you improve or suggest improving it next time?