**History of the Periodic Table**

1669 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ discovers phosphorus

1680 – Robert Boyle also discovered \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and made it public

1789 – Antoine Lavoisier tries grouping elements into the categories of \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_

1809 – At least \_\_\_\_ elements were discovered by this time

1863 – John Newlands divided the 56 elements that were discovered into \_\_\_\_ different groups

1869 – Dmitri Mendeleev starts organizing the elements by \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_. He left \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ spots for unknown elements to fit in

1886 – Antoine Bequerel discovers radioactivity. Scientists can begin using this to examine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of atoms

1894 – Sir Ramsay and Lord Rayleigh discover the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_. They get organized as group 0 in the periodic table.

1911 – Earnest Rutherford discover that electrons revolve around a central \_\_\_\_\_\_\_\_\_\_\_

1913 – Bohr discovers that electrons move around the nucleus at specific energy \_\_\_\_\_\_\_

1914 – Henry Moseley uses the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an element to give the elements an \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_. This re-organizes the periodic table a bit and corrects some pieces.

1932 – James Chadwick discovers \_\_\_\_\_\_\_\_\_\_\_\_ and completes the basis for the periodic table

1945 – Glenn Seaborg identifies the lanthanides and actinides.

**Properties of the Periodic Table**

**Horizontal rows** are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. A period usually shows a repeating trend of changes from left to right.

**Vertical columns** are called \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Groups share a common set of chemical properties and often have some shared physical properties

**Notable Groups:**

* Alkali Metals (Group 1):
* Alkaline Earth Metals (Group 2):
	+
	+
* Halogens (Group 17):
* Noble Gases (Group 18):
	+

**Blocks** are wide sections of the periodic table where the elements share the majority of their properties. There are three blocks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **State at room temperature** | **Appearance** | **Conductivity** | **Malleability and Ductility** |
| **Metals** |  | Shiny | **Good** at conducting heat and electricity | Malleable and ductile |
| **Non-Metals** |  | Not shiny | **Poor** conductor of heat and electricity | Brittle and not ductile |
| **Metalloids** |  | Can be shiny or dull | **May** conduct electricity**Poor** heat conductor | Brittle and not ductile |

**Reading the Periodic Table**

Atomic Symbol/Formula:

Atomic Number:

Atomic Mass:

