Name: $\qquad$ Date: $\qquad$ Period: $\qquad$

## Periodic Table

* Scientists have identified 90 naturally occurring elements, and created about 28 others.
* The elements, alone or in combinations, make up our bodies, our world, our sun, and in fact, the entire universe.
* The periodic table organizes the elements in a particular way. A great deal of information about an element can be gathered from its position in the period table.

For example, you can predict with reasonably good accuracy the physical and chemical properties of the element. You can also predict what other elements a particular element will react with chemically.

## * Properties of Metals

- Metals are good $\qquad$ of heat and electricity.
- Metals are $\qquad$ .
- Metals are $\qquad$ (can be stretched into thin wires).
- Metals are $\qquad$ (can be pounded into thin sheets).
- A chemical property of metal is its reaction with water which results in $\qquad$ .


## Properties of Non-Metals

- Non-metals are $\qquad$ of heat and electricity.
- Solid non-metals are $\qquad$ and break easily.
- They are $\qquad$ .
- Many non-metals are $\qquad$ .


## Properties of Metalloids

- Metalloids (metal-like) have properties of both $\qquad$ .
- They are solids that can be shiny or dull.
- They conduct heat and electricity better than non-metals but not as well as metals.
- They are ductile and malleable.


## * Groups

- Columns of elements are called $\qquad$ or families.
- Elements in each family have $\qquad$ but not identical properties.
- For example, lithium (Li), sodium (Na), potassium (K), and other members of group 1 are all soft, white, shiny $\qquad$ .
- All elements in a family have the same number of $\qquad$ .


## Periods

- Each horizontal row of elements is called a $\qquad$ .
- The elements in a period $\qquad$ alike in properties.
- In fact, the properties $\qquad$
$\qquad$ across any given row.
- The first element in a period is always an extremely $\qquad$ solid. The last element in a period, is always an $\qquad$ gas.

| Family Name | Location on Periodic Table | Examples |  |
| :--- | :--- | :--- | :--- |
| Halogens |  |  | Properties |
| Inert Gases |  |  |  |
| Metals |  |  |  |
| Alkali Metals |  |  |  |
| Alkaline Earth |  |  |  |
| Transition Metals |  |  |  |
| Lanthanide |  |  |  |
| Actinide |  |  |  |

