

Periodic table with the first column highlighted in green and labeled "ALKALI METALS".

**Alkali Metals** are in group 1, but they do not include Hydrogen!!  
 (So make sure people do not include Hydrogen when marking their Periodic table!)  
 Properties: (1) They are very, very reactive (they explode when they touch water!)  
 (2) They are a metal (duh).

Periodic table with groups 3 through 12 highlighted in green. Group numbers are labeled above the table: 1 (1A), 2 (2A), 3 (3B), 4 (4B), 5 (5B), 6 (6B), 7 (7B), 8 (8B), 9 (8B), 10 (8B), 11 (1B), 12 (2B), 13 (3A), 14 (4A), 15 (5A), 16 (6A), 17 (7A), 18 (8A). Element symbols are present in the highlighted transition metal region.

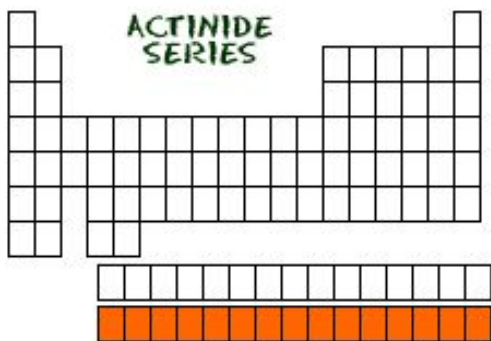
The **Transition Metals** include groups 3 through 12!  
 Properties: (1) They bond really well to themselves compared to most other elements.  
 (2) They are a metal (duh).

Periodic table with the second column highlighted in green and labeled "ALKALINE EARTH METALS".

**Alkaline–Earth Metals** are in group 2.  
 Properties: (1) They are very reactive.  
 (2) They are a metal (duh).

Periodic table with the lanthanide and actinide series highlighted in orange and labeled "LANTHANIDE SERIES".

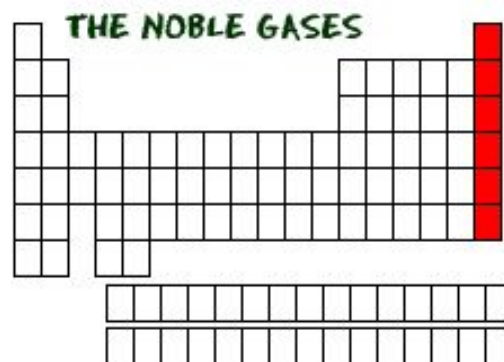
The **Lanthanides** are on the bottom of the periodic table, so we do not give them a group number.  
 Property: (1) They are shiny metals and similar to alkaline–earth metals.  
 (2) They are also known as rare–earth metals because, well, they are very rare on Earth!



The **Actinides** are on the bottom of the periodic table, so we do not give them a group number.

Properties: (1) They are radioactive because they are unstable and their nucleus will break apart because they are too big.

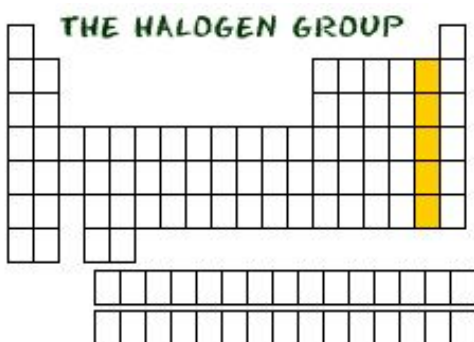
(2) Most of these are **synthetic**, meaning they were made in a lab and are not found naturally on Earth.



The **Noble Gases** are group 18.

Properties: (1) They are unreactive because they are “happy” (they have full valence electron orbitals)

(2) They were discovered last of the groups (because of how unreactive they are)



The **Halogens** are in group 17.

Properties: (1) They are the most reactive non-metal.

(2) They like to react with Alkali Metals (because they “complete” them!)