

Groups and Periods on the Periodic Table

- 1. Write the group numbers in the boxes along the top of the periodic table.
- 2. Write the period numbers in the boxes down the side of the periodic table.

							1 Hydrogen										Helium
7 Li Lithium 3	Be Beryllium							•				B Boron	12 C Carbon	Nitrogen	16 Oxygen 8	19 Fluorine	Ne Neon
Na Sodium	Magnesium											Aluminium 13	Si Silicon	Phosphorus	32 Sulfur 16	35.5 Cl Chlorine 17	40 Ar Argon 18
39 K Potassium 19	Ca Calcium	SC Scandium 21	Ti Titanium	Vanadium 23	Cr Chromium 24	Mn Manganese 25	Fe Iron 26	Co Cobalt 27	59 Ni Nickel 28	63.5 Cu Copper 29	65 Zn Zinc 30	Gallium	73 Ge Germanium	75 As Arsenic 33	79 Se Selenium 34	Br Bromine 35	Kr Krypton 36
Rb Rubidium 37	Sr Strontium	89 Y Yttrium 39	Zr Zirconium	Nb Niobium	96 Mo Molybdenum	99 TC Technetium 43	Ruthenium	Rh Rhodium	Palladium	Ag Silver	Cadium 48	Indium 49	119 Sn Tin 50	Sb Antimony	Tellurium 52	127 lodine 53	131 Xe Xenon 54
133 CS Caesium 55	Ba Barium	57-71	178 Hf Hafnium 72	Tantalum	184 W Tungsten 74	Rhenium	190 OS Osmium 76	192 Ir Iridium 77	195 Pt Platinum 78	197 Au Gold 79	Hg Mercury 80	204 Thallium 81	Pb Lead 82	Bi Bismuth	PO Polonium 84	(210) At Astatine 85	(222) Rn Radon 86
(223) Fr Francium 87	(226) Ra Radium 88	89-103	Rf	(262) Db Dubnium 105	(266) Sg Seaborgium 106	(264) Bh Bohrium 107	(269) HS Hassium 108	(268) Mt Meitnerium 109	(269) DS Darmstadtium 110	Rg Roentgenium	(285) Cn Copernicium 112	(286) Nh Nihomium 113	(289) Fl Flerovium 114	(289) MC Moscovium 115	(293) LV Livermorium 116	(294) TS Tennessine 117	(294) Og Oganesson 118



Elements in the same group have similar properties.

Lithium (Li) and potassium (K) are metals. They are solids at room temperature, have low melting points compared to other metals and are very reactive.

3. Name two other elements that have similar properties to lithium and potassium.

1. _____

2._____

 $Neon\,(Ne)\,and\,xenon\,(Xe)\,are\,non-metals.\,They\,are\,gases\,at\,room\,temperature\,and\,are\,unreactive.$

4. Name two other elements that have similar properties to neon and xenon.

1. ______

2. _____

The atomic number increases as you move from left to right across a period.

5. What is the atomic number of the elements below?

a. molybdenum (Mo) _____

b. germanium (Ge) _____

The atomic radius decreases as you move from left to right across a period. Some elements are shown in the table below. The atomic radius of each element is given in the table.

Element	Atomic Radius (pm)					
argon	71					
boron	87					
carbon	67					
chlorine	79					
oxygen	48					
phosphorus	98					

6. Predict the atomic radius of the elements below.

a. nitrogen (N) _____ pm

b. sulfur (S) _____ pm