

Chemistry 2.1: The Periodic Table

Section 1: The Periodic Table

2	Metals	Found on the left side whereas non-metals are on the right .
3	Metalloids	Near the stepped line and share properties of both metals/non-metals.
4	Group	The vertical columns found on the Periodic Table . These elements share similar properties such as density
5.	Period	The horizontal rows found on the Periodic Table .

metals non-metals

solids liquids gases at room temperature

Section 2: Metals and non-metals

	Properties of metals and non-metals	Metal	Non-metal
6	Good conductor of electricity	Y	N
7	Good conductor of heat	Y	N
8	Appearance?	Shiny	Dull
9	Density? (Mass of a material in a certain volume)	High	Low
10	Malleable (can be hammered into shapes)	Y	Breaks
11	Ductile ? (can be pulled into a wire)	Y	Breaks
12	Sonorous ? (makes a ringing sound when hit)	Y	N

Section 3: Elements of Group 1

13	The Alkali Metals	Lithium (Li), Sodium (Na), Potassium (K), Rubidium (Rb), Caesium (Cs) and Francium (Fr).
14	Reactive	The ability to take part in chemical reactions .
15	Reactivity of Group 1	As we move down group 1 , the elements become more reactive
16	These are the word equations for group 1 metals reacting with water:	Lithium + Water → Lithium hydroxide + hydrogen Sodium + Water → Sodium hydroxide + hydrogen Potassium + Water → Potassium hydroxide + hydrogen



▲ Lithium, at the top of Group 1, reacts vigorously with water.



▲ The reaction of potassium with water is very vigorous.



Section 4: Elements of Group 7

17	The Halogens	Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I) and Astatine (At).
18	Reactivity of group 7	Fluorine most reactive: As we move down group 7 , the elements become less reactive.
19	Displacement Reaction	A more reactive element pushes out a less reactive element from its compound in a chemical reaction .
20	Group 7 displacement	Elements nearer the top of group 7 displace elements lower in the group: fluorine will displace chlorine; chlorine will displace bromine
21	Example of displacement	Chlorine + potassium bromide → potassium chloride + bromine

Section 5: Elements of Group 0

22	The Noble Gases	Helium (He), Neon (Ne), Argon (Ar), Krypton (Kr), Xenon (Xe) and Radon (Rn).
23	Reactivity of group 0	The elements in Group 0 are unreactive .
24	Melting and boiling points	The melting/boiling point for the Noble gases increase as you move down the group.

