PROPERTIES COMMON IN ALL METALS

$ Solid.
$ Shiny (metallic luster).
$ Silver.
$ Malleable & ductile --> layers of +ve ions can slide over each other.
$ Good conductor of electricity (free moving electrons).

GROUP I

AKA Alkali metals.

PHYSICAL PROPERTIES

$ Soft.
$ Low melting point *(Decreases down the group).*
$ Low density *(Increases down the group).*
$ All their compounds are soluble in water.

CHEMICAL PROPERTIES

$ Monovalent (one oxidation state).
$ Lose 1 electron & form a +ve ion.
$ Very reactive *(Increases down the group).*
"They're preserved in paraffin or Kerosene".
$ No catalytic properties.
$ Their compounds are white when solid & colorless when aqueous.
$ React with cold water forming an alkali (soluble metal hydroxide).
"$2Na + 2H_2O \rightarrow 2NaOH + H_2$."
$ React with Oxygen forming a metal oxide.
"$4Li + O_2 \rightarrow 2Li_2O$."
$ Their compounds never undergo thermal decomposition except group 1 nitrate.
"$2NaNO_3 \rightarrow 2NaNO_2 + O_2$."

~ Lithium has the highest melting point, the lowest density and the lowest reactivity.
~ Cesium is the most reactive in this group.

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