Metals and their Compounds Lecture 1.4

Active metals are Groups 1, 2 and 3 (aluminium). Most reactive metals - in nature always occur as their IONS (Na⁺, K⁺ Mg²⁺ Ca²⁺ in sea water)

Group 1 metals as example :

Reactivity depends on size (lithium smallest, caesium largest)

Forms cations easily :

 $\mathsf{M} o \mathsf{M}^{\scriptscriptstyle +}$ + e⁻

 $2M + 2H_2O \rightarrow 2M^{+}OH^{-} + H_2 \uparrow$

Name	Symbol	Reacts with water
Lithium	Li	smoothly
Sodium	Na	vigourously
Potassium	K	violently
Rubidium	Rb	detonates
Caesium	Cs	detonates

This shows that reactivity increases smoothly as we go down Periodic Column.