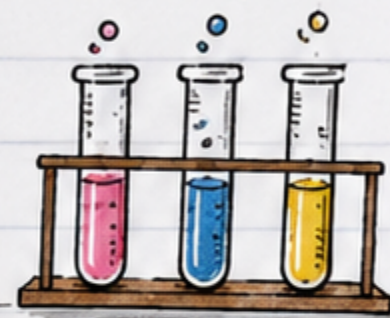
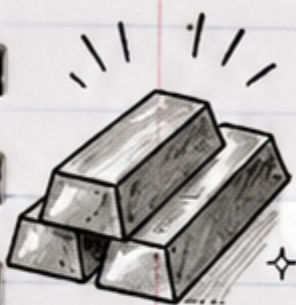




66 Matter is made up of elements,
and elements tell the story of everything. 99

26 Fe Iron	29 Cu Copper
13 Al Aluminium	

Chapter 3: Metals and Non-metals



Metal
Oxides
(Basic)

Quick Revision Notes

Non-metal
Oxides
(Acidic)

Physical
Properties



Chemical
Reactions



Reactivity
Series

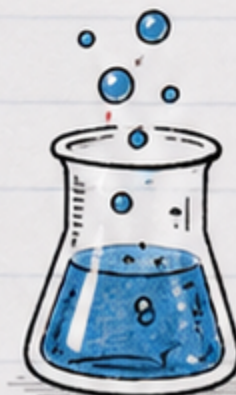
K	Ca	Na	Mg	Al	Zn	Fe	Cu	Ag	Au
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Most reactive → Least reactive

Corrosion



Metallurgy



Understand → Remember → Revise → Excel



Physical Properties



of Metals and Non-metals

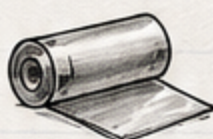
1. Metals



- **Lustrous** → shining surface called **metallic lustre**.

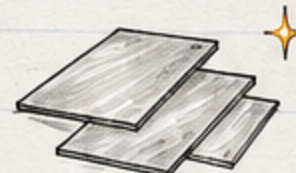


- **Hardness** varies.



- **Malleability** → beaten into thin sheets.

- Gold and silver most malleable.



- **Ductility** → drawn into wires.

- Gold most ductile.



- Good **conductors of heat**.

- Silver and copper best conductors.



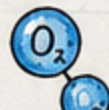
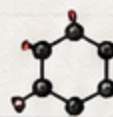
- Good **conductors of electricity**.



- **Sonorous**. (())

2. Non-metals

- **Examples**: carbon, sulphur, iodine, oxygen, hydrogen.



- Mostly **solids or gases**.



- Bromine is **liquid**.



Metals vs Non-metals

Property	Metals	Non-metals
Appearance	Lustrous (shiny) ✨ ✨	Usually dull 
Physical state	Mostly solids 	Solids or gases 
Malleability	Malleable (can be beaten into sheets) 	Non-malleable (brittle) 
Ductility	Ductile (can be drawn into wires) 	Non-ductile ✗
Conductivity	Good conductors of heat and electricity 	Poor conductors of heat and electricity 
Sonorous	Sonorous (ringing sound) 	Non-sonorous ✗