
ORES

OXIDE ORE:

Fe_2O_3	→	Haematite
Fe_3O_4	→	Magnetite
$Al_2O_3 \cdot 2H_2O$	→	Bauxite
$Fe_2O_3 \cdot 3H_2O$	→	Limonite
Cu_2O	→	Cuprite or Ruby copper
MnO_2	→	Pyrolusite
SnO_2	→	Tinstone or Casseterite
TiO_2	→	Rutile
$Fe \cdot Cr_2O_4$	→	($FeO + Cr_2O_3$) Chromite ore
$Na_2B_4O_7 \cdot 10H_2O$	→	Borax or Tincal
$Ca_2B_6O_{11} \cdot 5H_2O$	→	Colemanite
U_3O_8	→	Pitch Blende
$FeO.TiO_2$	→	Ilmenite

SULPHURISED ORE:

PbS	→	Galena
HgS	→	Cinnabar
ZnS	→	Zinc blende
Cu_2S	→	Copper glance
$CuFeS_2$	→	Copper Pyrite (Chalcopyrite)
FeS_2	→	Iron pyrite or Fool's gold
Ag_2S	→	Silver glance or Argentite

HALIDE ORE:

NaCl	→	Rock Salt
KCl	→	Sylvine
CaF_2	→	Fluorspar
Na_3AlF_6	→	Cyolite
AgCl	→	Horn Silver
$KCl \cdot MgCl_2 \cdot 6H_2O$	→	Carnalite

OXY SALT ORE:

(1) CARBONATE ORE:

$CaCO_3$ → Lime stone

$MgCO_3$ → Magnesite

$CaCO_3 \cdot MgCO_3$ → Dolomite

$FeCO_3$ → Siderite

$ZnCO_3$ → Calamine

$Cu(OH)_2 \cdot CuCO_3$ → Malachite or Basic Copper Carbonate

$Cu(OH)_2 \cdot 2CuCO_3$ → Azurite

$PbCO_3$ ⟶ Cerrusite

(2) SULPHATE ORE:

$CaSO_4 \cdot 2H_2O$ → Gypsum

$MgSO_4 \cdot 7H_2O$ → Epsom Salt

$PbSO_4$ → Anglesite

$BaSO_4$ → Baryte

$Na_2SO_4 \cdot 10H_2O$ → Glauber Salt

(3) NITRATE ORE:

KNO_3 → Indian Salt peter

$NaNO_3$ → Chile Salt peter

METALS IN LIVING ENTITIES :

(a) **Magnesium** is found in chlorophyll.

(b) **Potassium** is presnt in plant roots.

(c) **Manganese, iron** and **copper** are present in chloroplast.

(d) **Zinc** is present in eyes of cats and cows.

(e) **Iron** is present in haemoglobin.

(f) **Calcium** is present in bones.

(g) **Vanadium** is present in cucumbers.

(h) **Chromium** is present in prown.

ALLOYS

	NAME OF THE ALLOY	COMPOSITION	USES
1.	Magnelium	Al : 98%, Mg : 2%	For making balance
2.	Duralumin	Al: 95%, Cu : 4 % Mg : 0.5 %, Mn : 0.5%	Air craft parts boat machinary
3.	Aluminium bronze	Al :10%, Cu : 90 %	Making coins, photo frames utensils, golden paints
4.	Almica	Al : 20%, Ni : 20 % Co: 10%, Steel : 50%	For making permanent magnet
5.	γ-Alloy	Al : 92%, Cu : 4% Mg : 1.5 %, Ni : 2.5 %	Pistons and machine parts
6.	Nickeloy	Al : 95%, Cu : 4 %, Ni : 1%	Air craft parts
7.	Pewter	Pb : 20, Sn : 80	Utensils
8.	Solder	Pb : 50, Sn : 50	Soldering
9.	Type metal	Pb : 75, Sn : 5, Sb:20	Printing type
10.	Bell metal	Cu : 80, Sn : 20	Bells making
11.	Babbit metal	Sn : 90, Sb : 7, Cu : 3	Bearing of machinary
12.	Frary metal	Pb : 97%, Ba: 2%, Ca: 1%	Bearing of machine
13.	Lino type metal	Pb : 83%, Sn : 3%, Sb:14%	Printing type
14.	Brass	Cu:70%, Zn:30%	making utensils condenses tube making
15.	Bronze	Cu: (88-96%), Sn (4-12%)	utensils, coins, statues
16.	Monel metal	Cu: 27%, Ni : 68%, Fe : 5%	making pumps, turbines of ships, boilers etc.
17.	German silver	Cu: 50%, Zn: 30%, Ni: 20%	Flower Vase & ornaments
18.	Electron	Mg:95%, Zn:4.5, Cu: 0.5%	Parts of aeroplane and motor cars
19.	Dutch metal	Cu: 80%, Zn: 20%	Golden yellow colour used for decorative purpose