

Assessment = ★

Self-assessment = ★



Apply:
SC15 Dynamic
Equilibrium

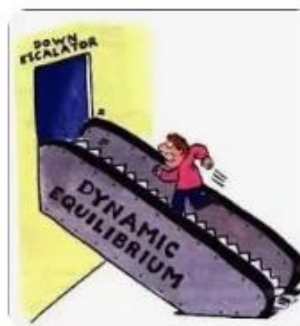
Revision
lesson

Focus on retrieval,
key word
definitions and
equations.

Assessment
&
Review



Rate
forward = Rate
reaction backward
reaction



Dynamic
equilibrium

Reversible
reactions and
conditions that
affect it

Life cycle
assessments

Advantages of
recycling and the
environmental
impact



Oxidation and
reduction

Gain/loss of oxygen,
ease of reactivity

O - Oxidation
I - is
L - Loss of electrons
R - Reduction
I - is
G - Gain of electrons

Ores

Extraction of metals

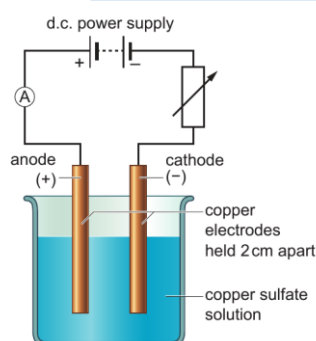
Metal	Method of extraction
potassium	electrolysis of a molten compound
sodium	
calcium	
magnesium	
aluminium	heat an ore with carbon
(carbon)	
zinc	
iron	
copper	found as the uncombined element
silver	
gold	

increasing reactivity

Metal	Reaction with water	Reaction with dilute acid	Tendency of metal atoms to form cations
potassium	react with cold water to form hydrogen and a metal hydroxide	react violently	 increasing ability of metal atoms to form positive ions
sodium			
calcium			
magnesium	react very slowly, if at all, with cold water but react with steam to form hydrogen and a metal oxide	react to form hydrogen and a salt solution	
aluminium			
zinc			
iron			
copper	do not react with cold water or steam	do not react	
silver			
gold			

SC11
reactivity

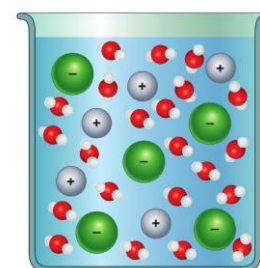
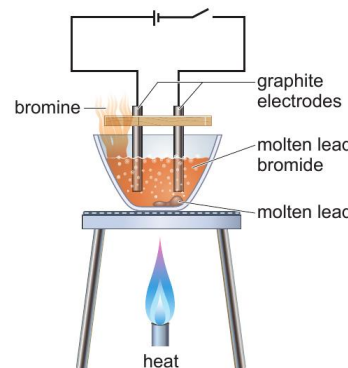
Metals reacting
with water,
displacement
reactions



B Purifying copper by electrolysis. The copper to be purified is used as the anode and some very pure copper is used as the cathode.

Products from
electrolysis

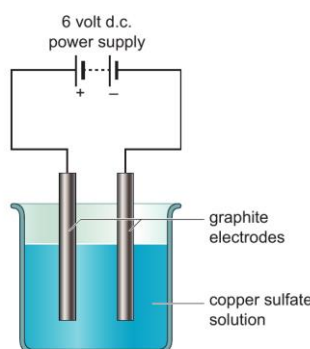
Predicting products
from solutions



(b) The ions can move when sodium chloride is dissolved in water.

Electrolysis of
copper
sulfate

CORE PRACTICAL
Inert and Cu
electrodes



C electrolysis circuit for using graphite electrodes

SC10
Electrolysis

What happens to
the ions.
Half equations - **H**
only

Retrieve:
Year 7 Word equations
Year 8 Metals
Year 9 extracting metals
SC5 Ions

Keywords

Anion, cation, anode, cathode, electrolyte, half equation, oxidation, reduction, inert, redox reaction, reactivity series, spectator ion, bioleaching, native state, ore, phytoextraction, corrosion, life cycle assessment, recycling, renewable, finite. . Check the word sheet for more key words and definitions.