Unit 10

Process 3 -
Cause and Effect

JEM/ENG
Mesleki Yabancı Dil

(Professional English)

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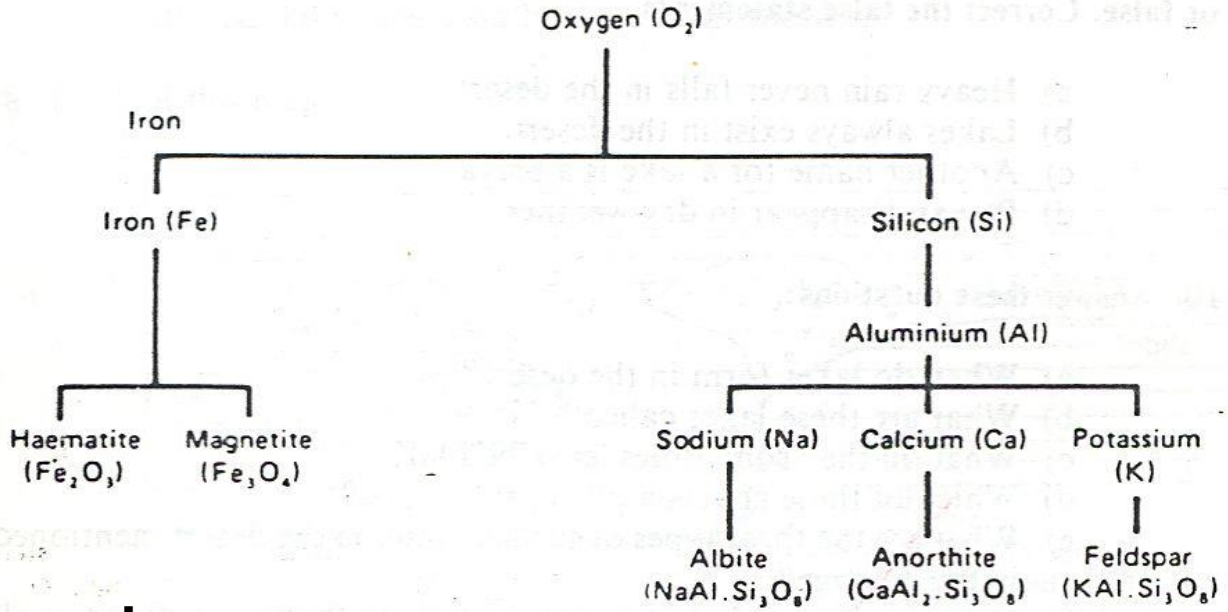
TAG

Process 3 - Cause and Effect

Read this:

Minerals in rocks sometimes *decompose to form* other minerals. There are four principal processes - oxidation, solution, carbonation and hydration.

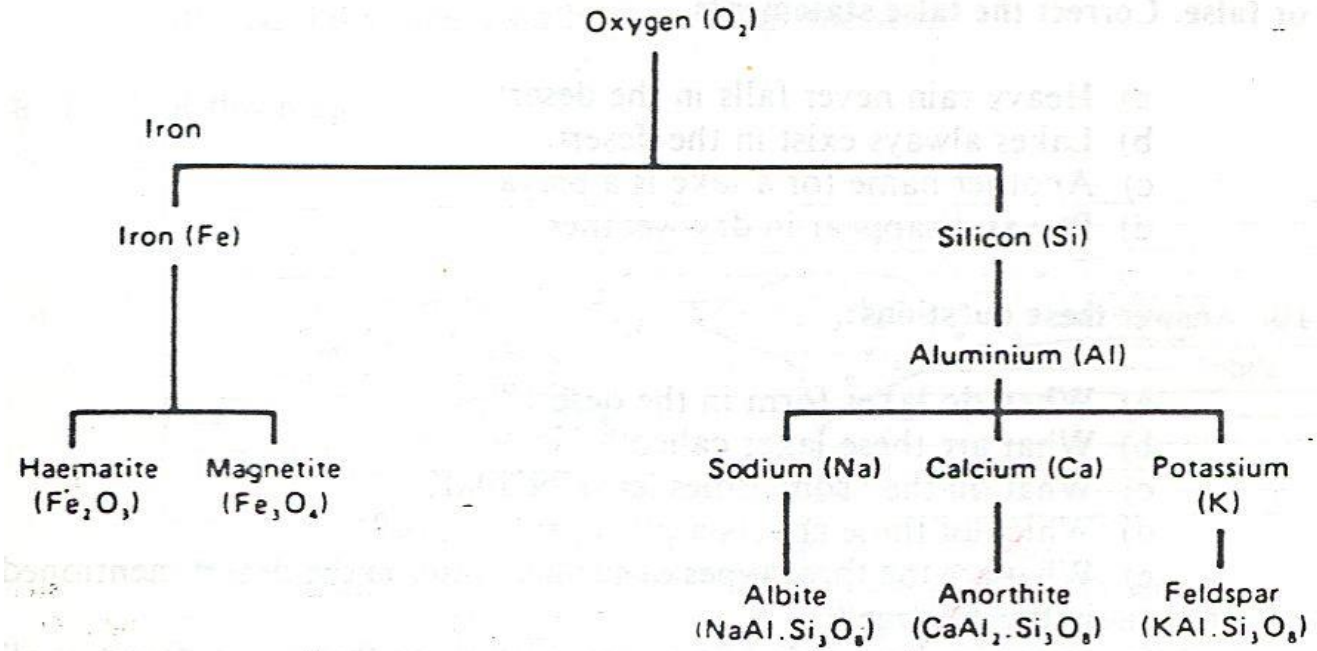


Example

Iron *combines with* oxygen *to form* haematite.

Thus the formation of haematite *results from* the oxidation of iron.

Albite forms *as a result of* the oxidation of silicon, aluminium and sodium.



Now complete these statements

(a) Iron also combines with oxygen to form .....

(b) The formation of anorthite results from the oxidation of .....

..... and ....

(c) Feldspar forms as a result of ....

ACTION RESULT

i) Hydrogen *combines with* oxygen *to form* water.

$2H_2 + O_2 \longrightarrow 2H_2O$

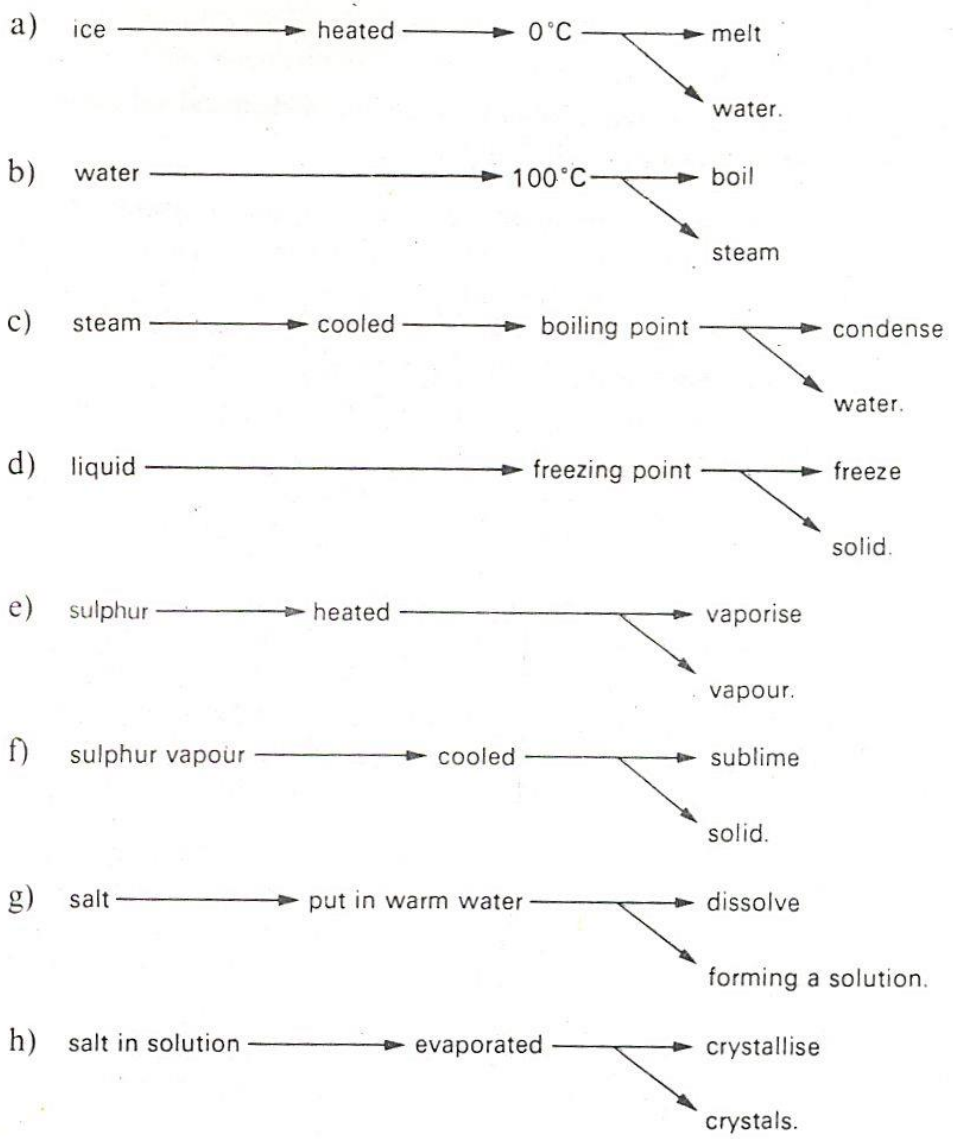
ii) Gases and solids sometimes dissolve in liquids . . . → *to form* solutions / *thus* / *thereby* → *forming* solutions.

Make sentences describing chemical reactions from this table

Potassium Calcium Magnesium Iron Carbon	combines with	hydrogen oxygen chlorine iodine	to form	calcium oxide, CaO. methane, CH_4. potassium iodide, KI. iron (III) oxide, Fe_3O_4. magnesium chloride, $MgCl_2$.

Example:

If ice is heated to melting point, It will melt, changing into water.



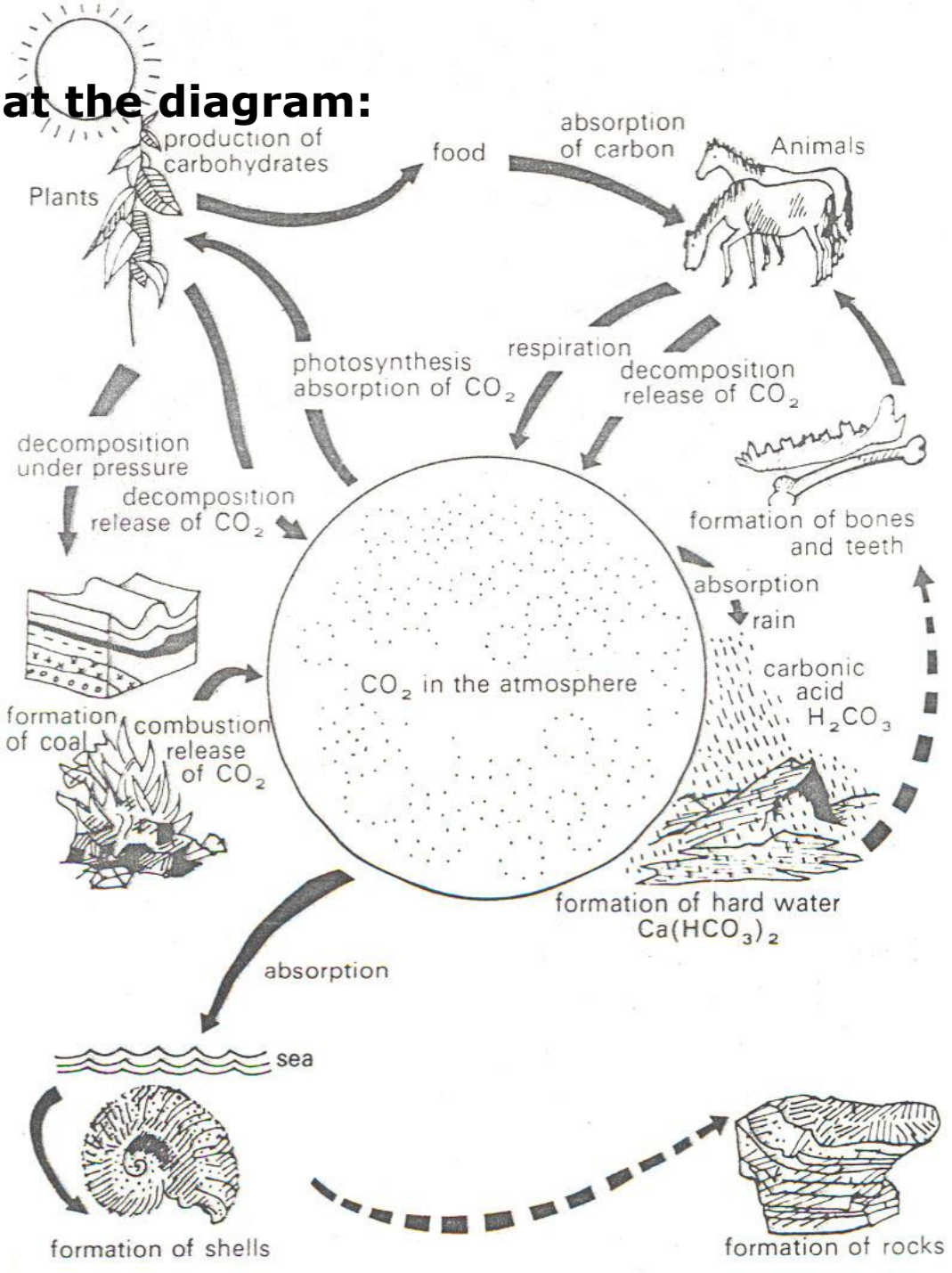
Read this text:

Hydration is another process leading to the formation of new minerals. During this process certain minerals *combine with* water (H_2O) to form other, more complex minerals. For example, haematite (Fe_2O_3) *combines with* water to form limonite ($Fe_2O_3.H_2O$). Similarly, the formation of bauxite ($Al_2O_3.2H_2O$) *results from* the hydration of aluminium oxide (Al_2O_3). Another example is kaolinite ($Al_2O_3.2SiO_2.2H_2O$) which forms *as a result of* hydration of feldspar ($Al_2O_3.2SiO_2$).

Read this passage and look at the diagram:

The carbon cycle

The life of plants and animals depends on chemical substances, containing carbon atoms. Plants obtain carbon from the very small amounts of carbon dioxide in the atmosphere. This atmospheric CO2 is continually absorbed and given off (released) in "carbon cycle".



Look at these:

(A = cause, B = result)

A *results in* B.
A *results from* B.
As a result of A, B occurs.
A *leads to* B (eventually: other events occur between A and B).

Now make ten true sentences from the tables below:

As a result of	eating plants, photosynthesis, combustion of coal, decomposition of dead plants,	carbon dioxide is given off. carbohydrates are produced by plants. animals absorb carbon.

Decomposition of plants under pressure	results in	respiration.
Release of CO_2 into the atmosphere		photosynthesis.
Decomposition of dead animals		the formation of teeth and bones in animals.
Formation of hard water	results from	the formation of rocks.
Absorption of CO_2 by the sea		the formation of coal.
Production of carbohydrates	leads to	the release of CO_2 into the atmosphere.
Formation of carbonic acid		the formation of shells.
Formation of shells		the combination of rain and CO_2 in the atmosphere.