CONCEPT MAP

Definition: Concept map offers a method to represent information visually.

Purpose: Concept maps harness the power of our vision to understand complex information "at-a-glance". The primary function of the brain is to interpret incoming information to make meaning. It is easier for the brain to make meaning when information is presented in visual formats. It is essential to your studies and career that you can handle complex information; concept maps offer one method to do this.

Practical applications in your courses:

a) handy way to take notes during lecture,

b) planning your studies

c) a way to outline your terms paper and presentation

d) refine your creative and critical thinking

Kinds: There are three major categories of concept maps. These can be distinguished by their different format for representing information.

Three Major Categories of Concept Maps:

Hierarchy Concept Map: The Hierarchy concept map presents information in a descending order of importance. The most important information is placed on the top. Distinguishing factors determine the placement of the information.

Spider Concept Map: The `Spider' concept map is organized by placing the central theme or unifying factor in the center of the map. Outwardly radiating sub-themes surround the center of the map.

Flow Chart Concept Map: The flow chart concept map organizes information in a linear format.

http://classes.aces.uiuc.edu/ACES100/Mind/CMap.html

Exercise 1

A. Read the following passage

Weathering is the first process to operate in the making of a landscape. Rocks on the earth's surface are exposed to temperature changes and sometimes to the action of rain and frost. Temperature changes and water in time cause rock to break up by mechanical disintegration and chemical composition.

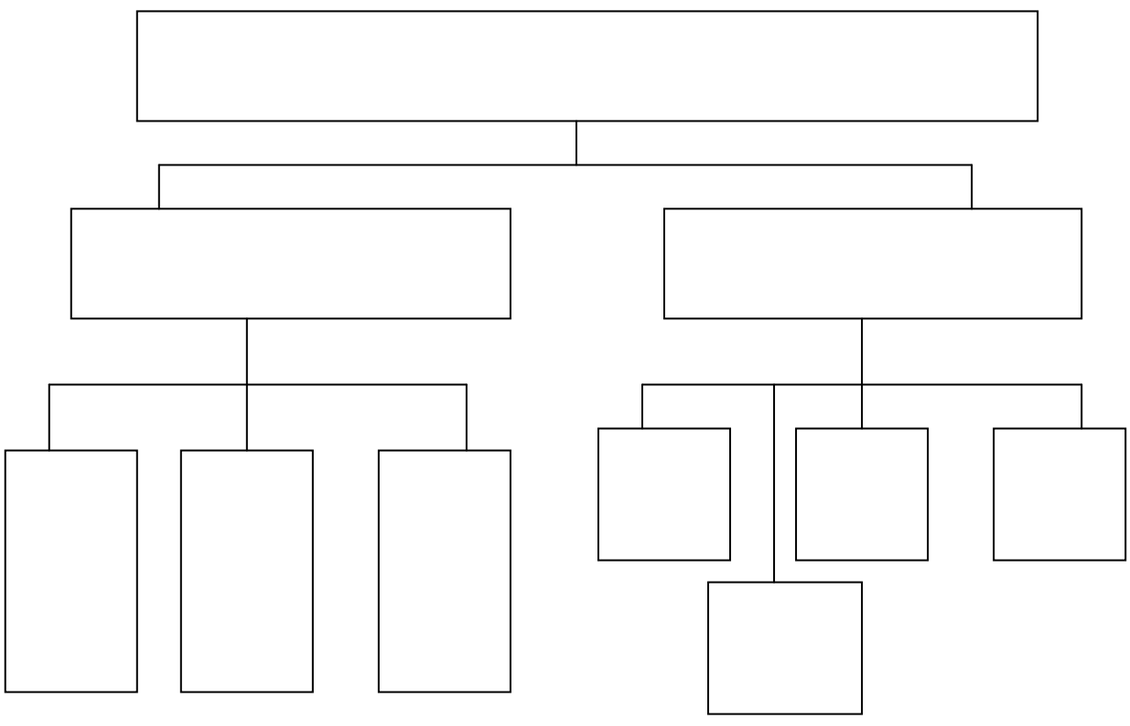
The mechanical break-up of rock can take place either by the release of pressure on a rock or by pressure being applied within the rock. This can happen in three ways: a) releases of pressure through unloading; b) pressure applied through temperature changes; and c) pressure applied through water absorption.

Some of the minerals of most rocks decompose when the rocks come into contact with water, oxygen and carbon dioxide. Different processes: a)solution, b)hydration; c)hydrolysis; and d)carbonation may lead to the decomposition of the minerals.

B. Find out the theme and the main points of the passage

1. Theme : _____
2. Main points : _____
   _____
   _____
   _____
   _____

C. Organize the main points by using the following figure



Exercise 2

A. Read the following passage

Concept map offers a method to represent information visually. Concept maps harness the power of our vision to understand complex information. It is easier for the brain to make meaning when information is presented in visual formats.

There are three major categories of concept maps. They are the spider concept map, hierarchy concept map and flow chart concept map. They can be distinguished by their different format for representing information.

You can use concept maps in the following ways:

a) handy way to take notes during lecture,

b) planning your studies

c) a way to outline your terms paper and presentation

d) refine your creative and critical thinking

B. Find out the theme and the main points of the passage

1. Theme : _____

2. Main points : _____

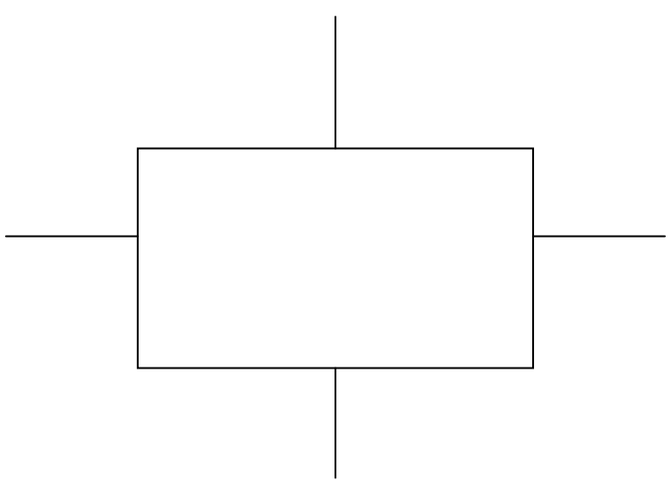
_____

_____

_____

_____

C. Organize the main points by using the following figure



Exercise 3

A. Read the following passage

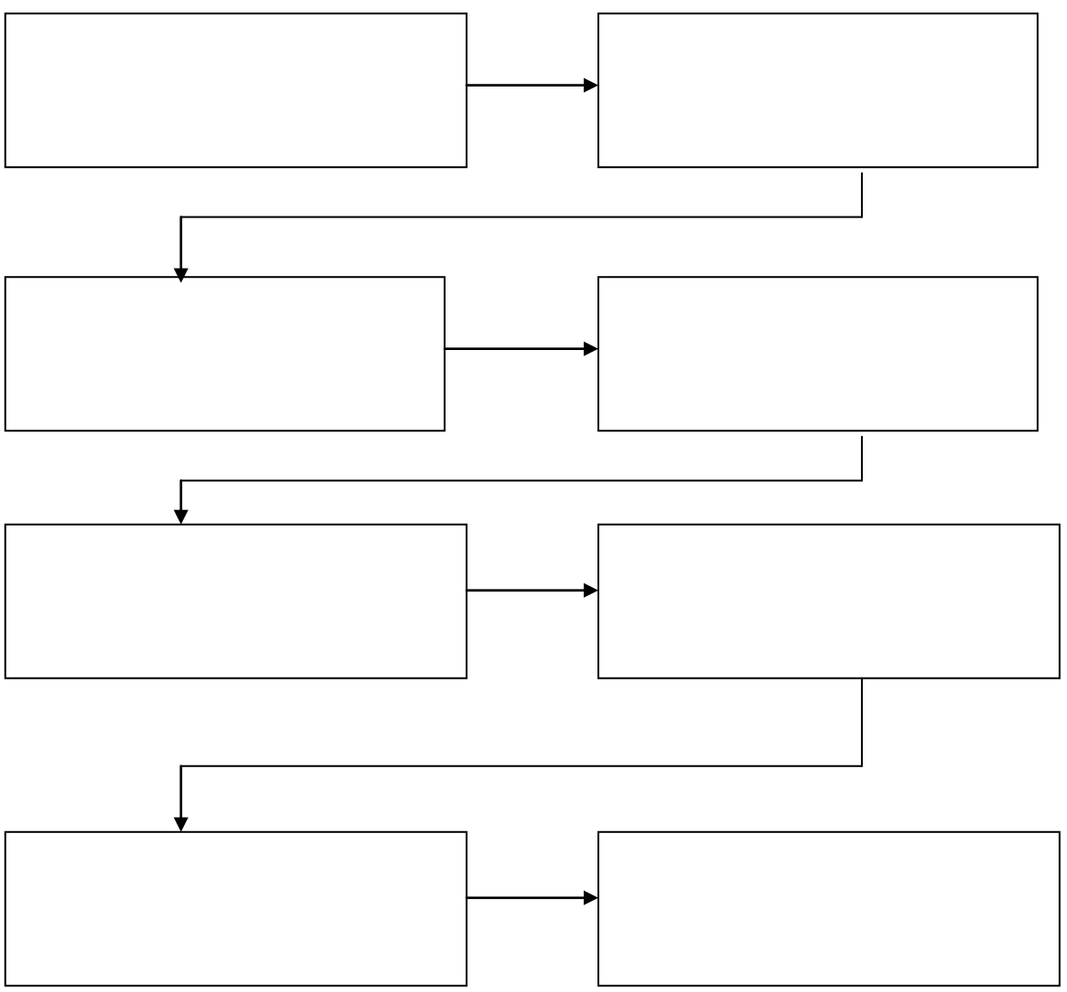
At the beginning, undercutting begins in the land where the sea meets it. This will be at about the high tide level. *Notch* will form. As erosion proceeds, the notch is further developed and the first signs of a *cliff* appear. Further recession of the notch results in the development of the cliff.

As wave erosion continues, the base of the cliff is being undercut. The top portion of the cliff collapses. Thus, the cliff gradually retreats. A broken surface of bare rock occurs. This is known as the *wave-cut platform.*

B. Find out the theme and the main points of the passage

1. Theme : _____
2. Main points : _____
   _____
   _____
   _____
   _____

C. Organize the main points by using the following figure



Exercise 4

A. Read the following passage

B. Find out the theme and the main points of the passage

C. Organize the main points by using the concept maps

At great depths of the earth's crust, magma will be forced out through the line of weakness when pressure is released. Because the temperature drops, the magma cools and solidifies to become igneous rock. The magma may either cool within the crust or flow out on the surface of the earth.

According to the position of the cooling, three different types of igneous rocks can be found.:

1) *Plutonic rocks:*

They cool at great depth. The cooling rate is very slow so the mineral crystal is large in size. They are found in batholith.

2) *Hypabyssal rocks:*

They cool at dyke or sill *near the surface* of the earth. The cooling rate is intermediate. The mineral crystals vary in size, either large or small and they may be set in a groundmass.

3) *Volcanic rocks:*

The magma flow outs to the earth surface. It cools much more rapidly because it is exposed to the atmosphere. The crystals are *very* small. They are found in volcanic cone and lava flow.

Exercise 1

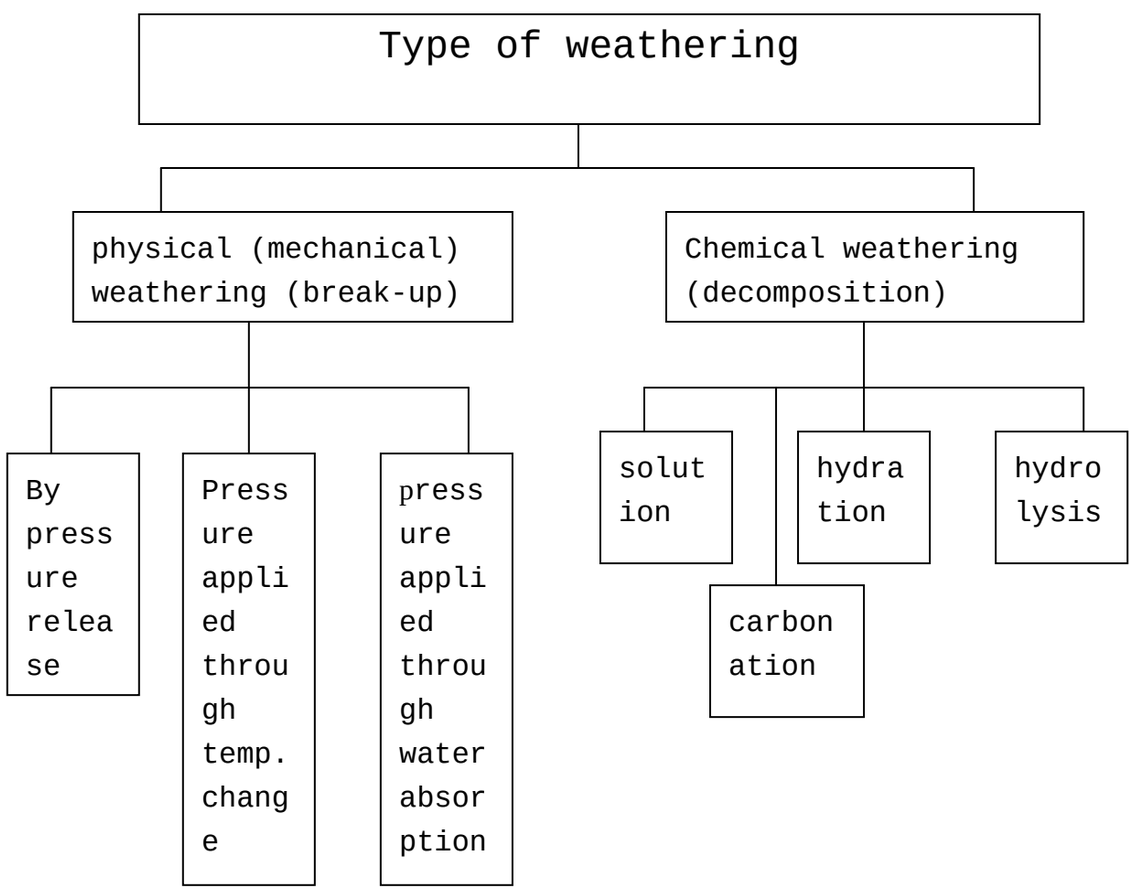
A. Read the following passage

1. Theme : Type of weathering
2. Main points :

A. physical (mechanical) weathering(break-up)
   a) by release of pressure
   b) pressure applied – I) through temp. change
      II) through water absorption

B. Chemical weathering(decomposition)
   a) solution
   b) hydration
   c) hydrolysis
   d) carbonation

C. Organize the main points by using the following figure



Exercise 2

A. Read the following passage

B. Find out the theme and the main points of the passage

1. Theme : Purpose and types of concept map

2. Main points :

A. Purpose of concept map:

a) harness the power of our vision to understand complex information

B. Categories:

a) spider

b) hierarchy

c) flow chart

C. Ways to use:

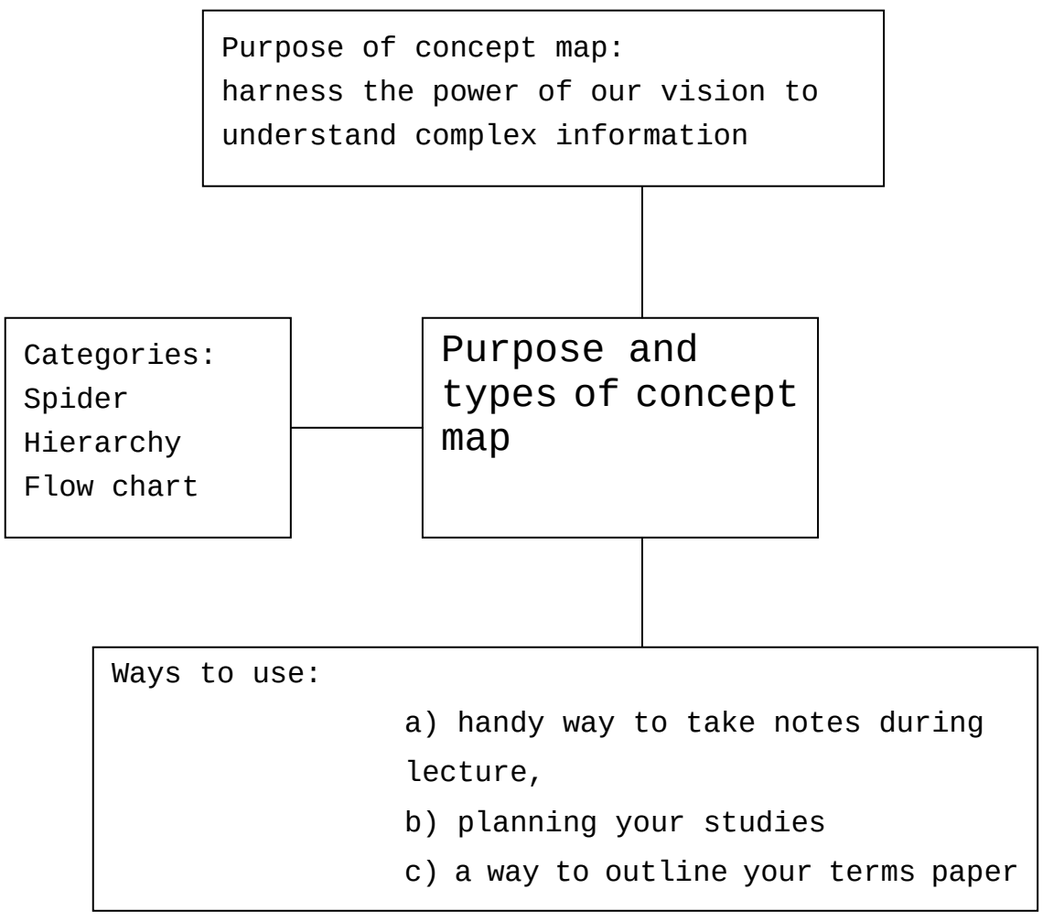
a) handy way to take notes during lecture,

b) planning your studies

c) a way to outline your terms paper and presentation

d) refine your creative and critical thinking

C. Organize the main points by using the following figure



Exercise 3

A. Read the following passage

B. Find out the theme and the main points of the passage

1. Theme : Formation of cliff and wave-cut platform

2. Main points :

A. undercutting begins in the land where the sea meets

B. notch will form

C. notch further developed as erosion proceeds

D. further recession of notch leads to development of cliff

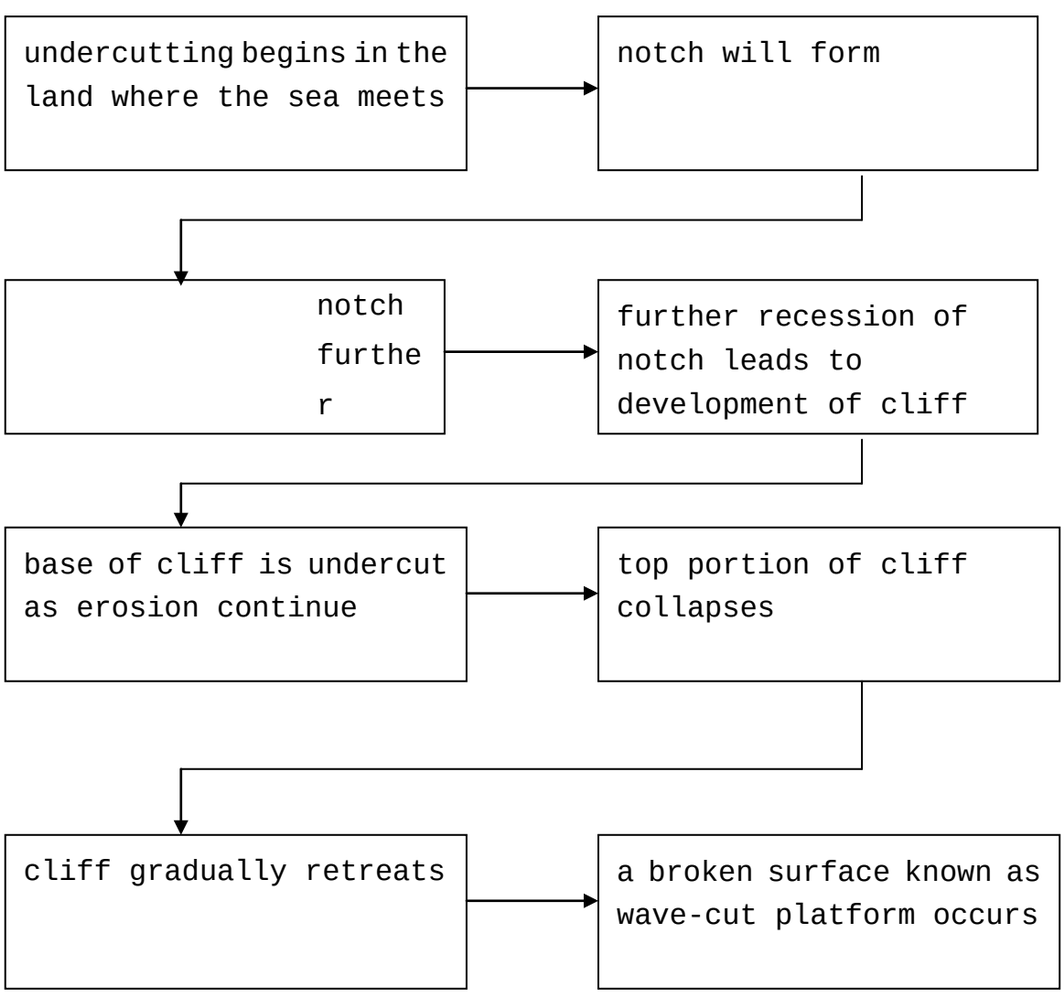
E. base of cliff is undercut as erosion continue

F. top portion of cliff collapses

G. cliff gradually retreats

H. a broken surface known as wave-cut platform occurs

C. Organize the main points by using the following figure



Exercise 4

A. Read the following passage

B. Find out the theme and the main points of the passage

1. Theme : Formation and types of igneous rocks

2. Main points :

A. Formation process of igneous rock

a) pressure releases

b) magma forced out through line of weakness

c) temperature drops

d) magma cools and solidifies

B. Types of igneous rock

a) criteria to classify the rock: position

b) types:

i) plutonic rock:
characteristics: cools at great depth, slow cooling rate, large mineral size, found in batholith

ii) hypabyssal rock
characteristics: cools at dyke/sill, cooling rate is intermediate, mineral size is various,

iii) volcanic rock
characteristics: cools at the earth surface, more rapid cooling rate, very small crystal, found in volcanic cone and lava flow

C. Organize the main points by using the following figure