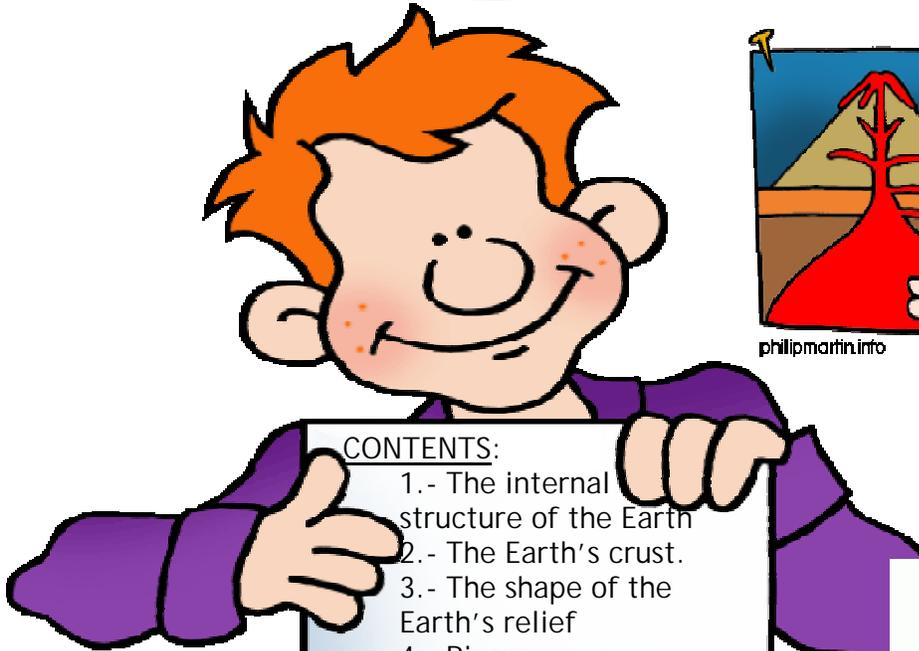


TOPIC 2: THE RELIEF



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CONTENTS:

- 1.- The internal structure of the Earth
- 2.- The Earth's crust.
- 3.- The shape of the Earth's relief
- 4.- Rivers
- 5.- Natural Hazards

MARTIN

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Full name:

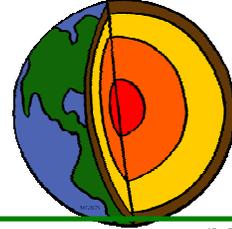
Date:

Class:

School:

Teacher:

VOCABULARY



A

Ash: ceniza

B

Basin: Cuenca
Bay: Bahía
Bear: oso/a
Between: entre

C

Channel: canal
Cone: cono volcánico
Continental slope:
talud continental
Continental shelf:
plataforma continental
Core: núcleo
Crust: corteza

D

Deep: profundo/a
Due to: debido a

E

Earthquake: terremoto
Eroded: erosionado

F

Fault: falla
Fissure: fisura
Flat: llano/a
Floor: suelo
Fold: pliegue

G

H

High: alto/a

I

inner: interno

J

K

Kind: tipo, clase

L

Layer: capa.
Land: tierra.
Lower: más bajo

M

Magma: lava
Mantle: manto
Measure: medir
Mouth: desembocadura
Mud: fango, lodo, barro

N

O

Opening: apertura
outer: externo
ocean floor: suelo oceánico
oceanic ridge: dorsal
oceánica.
oceanic trench: fosas
submarinas

P

Pipe: chimenea

Q

R

Release: liberar, expulsar
Relief: relieve

S

Salt: salado/a
Scientists: científicos
Shallow: poco profundo
Slower: más lento
Smoke: humo
Source: nacimiento de un río
Steep: escarpado
Sudden: repentino
Surface: superficie

T

That: que
Thin: fino/a
Top: encima
Tributary: afluente

V

Vent: respiradero

W

With: con

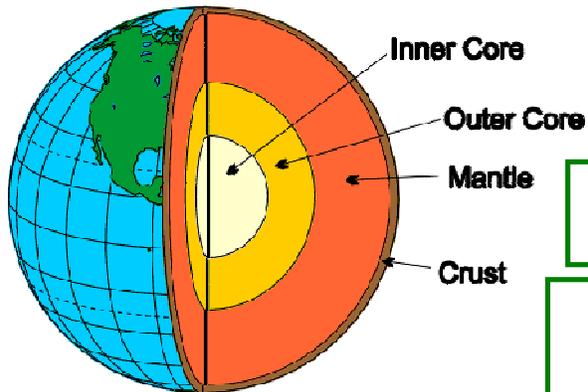
0.-INTRODUCTION

The German scientist Alfred Wegener developed the CONTINENTAL DRIFT theory in 1912. His theory says that there was only one continent, called Pangea, which broke up millions of years ago



1.-THE INTERNAL STRUCTURE OF THE EARTH

The Earth is made of crust, mantle, outer core and inner core.



- This layer is internal. It has got a solid and a liquid part.
- It is very hot. The temperatures are very high

- It is the intermediate layer. It has got magma.

- This layer is external because it is on the surface of the Earth.
- It is thin.
- It has got continents and oceans.

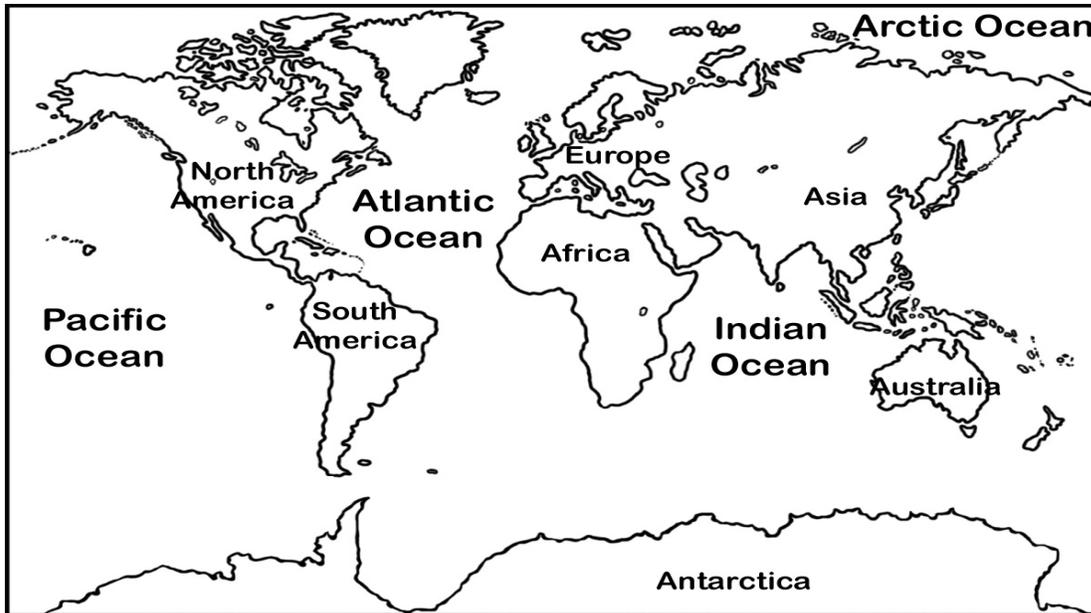
2.- THE EARTH'S CRUST

The Earth's crust has a solid part and a liquid part.

The solid part refers to the continents. There are six continents. Their names are Asia, America, Africa, Antarctica, Europe and Oceania.

The liquid part refers to the oceans. There are five oceans. Their names are Pacific, Atlantic, Indian, Southern and Arctic.

Oceans are massive bodies of salt water. There is connection between them.



The Pacific is the largest ocean. It is very deep. It is between Asia and America.

The Atlantic is the second biggest ocean in the world. It is between the continents of America and Europe and Africa.

The Indian Ocean is the third biggest ocean on Earth. It is between Africa, Asia and Australia. It is in the south of the Equator.

The Arctic Ocean is small, cold and shallow. It is in the North Pole in the Arctic circle. Polar bears live on the Arctic ice.

Activity 1. The Earth's crust has got a liquid part and a solid part. Colour the land brown and water blue.

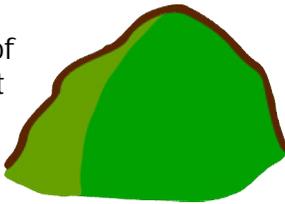


The Earth's surface is not flat. There are different kinds of relief. Continental relief, coastal relief and oceanic relief. The relief is the different forms on Earth, for example, mountains, plateaus, valleys...

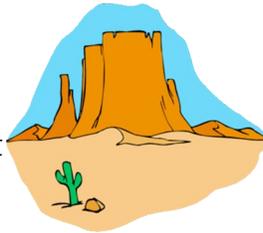
2.1- Continental relief.

Continental relief includes hills, mountains, valleys, plateaus and basins.

A hill is an elevation of the land. It is smaller than a mountain.



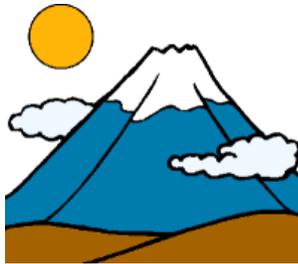
A plateau is an elevated area of flat land.



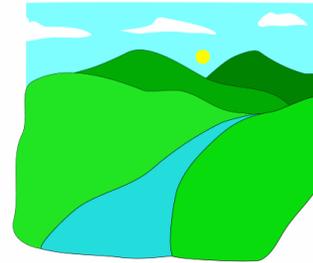
A basin is a shallow area with water.



A mountain is a very high hill. It has got more than 600 metres.



A valley is the flat land between two mountains. It usually has got a river.



Activity 2. Remember. Complete the diagram.



The Earth is made of three main parts:

1. - _ _ _ _ _

2. - _ _ _ _ _

3. - _ _ _ _

a) Liquid part. It includes _____

b) _____ part. It includes

c) The crust has got three types of relief:

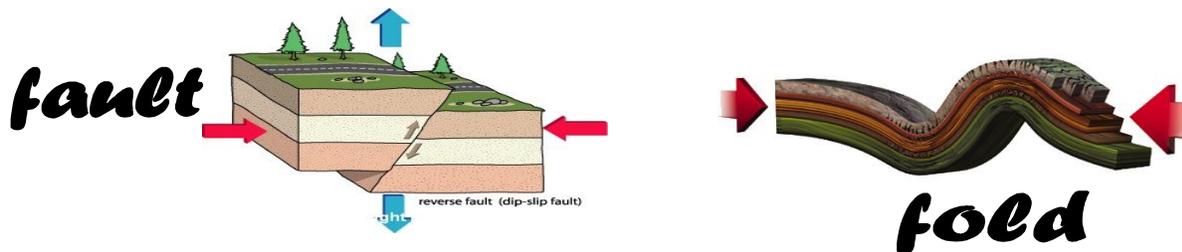
-oceanic relief.

2.1.2 Changes in the relief

The relief of the Earth can change due to:

Internal forces:

The Earth's crust has got tectonic plates. They move continually. The collision of the plates produce undulations and fractures. Their names are folds and faults.



External forces:

There are two external forces:

Erosion refers to the fragmentation of dissolution of rocks, soil and mud. The causes of erosion are temperature, water, wind and human beings



Sedimentation: refers to the accumulation of sediment (sand, mud or eroded rocks)

Activity 3. Complete with the words in the box.



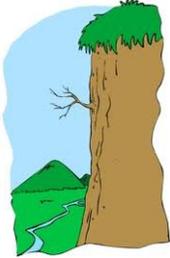
responsible fault land (X2) fold

- A is an undulation in the
- A is a fracture in the
- Water, wind, and temperature are the for erosion.

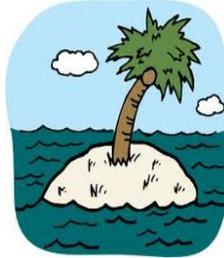
2.2 Coastal Relief

Coastal relief includes cliffs, island, beach, cape, bay, archipelago and gulf.

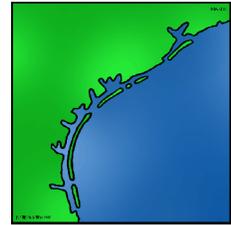
A cliff is a rock formation. It is very high and steep.



An island is a piece of land surrounded by water.



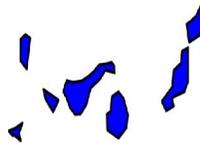
A gulf is the part of the ocean partially surrounded by land.



A bay is similar to a gulf but it is smaller.



An archipelago is a group of many islands.



A beach is a flat area covered with sand. It is surrounded by the sea.



2.2 Oceanic Relief

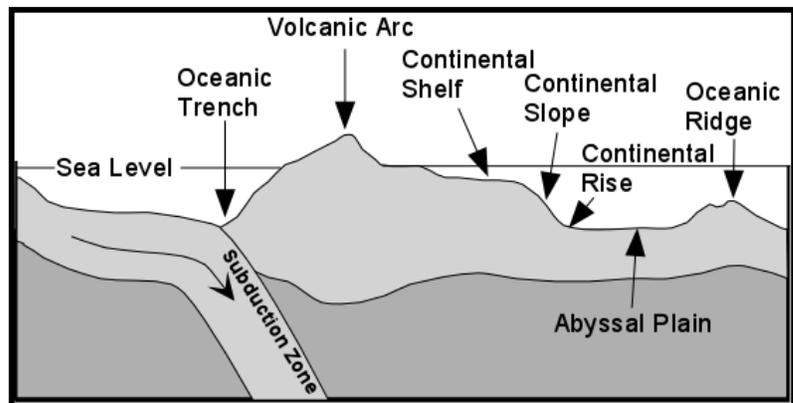
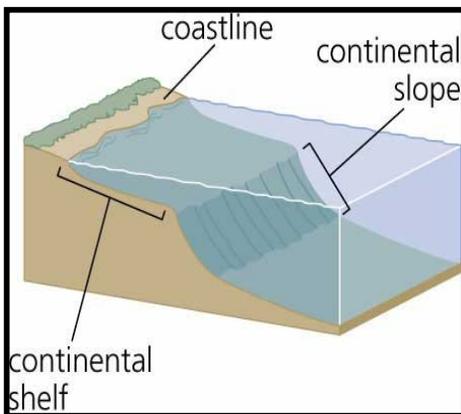
Oceanic relief includes continental slope, continental shelf, oceanic ridges and oceanic trenches

Continental slope is a place which goes to deep parts of the ocean.

Continental shelves are places near the coast. They are submarine plateaus with more than 150 metres.

Oceanic ridge is a row or group of submarine mountains in the ocean floor.

Oceanic trenches are large, deep depressions in the ocean floor



Activity 4. Write under the correct column.



| | | | |
|-------------------|---------|---------------------|-------|
| continental slope | island | continental shelves | hill |
| oceanic ridge | beach | mountain | cliff |
| basin | plateau | archipelago | bay |
| oceanic trenches | valley | gulf | |

CONTINENTAL RELIEF

COASTAL RELIEF

OCEANIC RELIEF

Activity 5. Unscramble the words. Find all the landforms of the coastal relief

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q | S | P | O | T | T | E | R | Y | H | N | F | C | P |
| B | V | W | F | L | U | G | F | F | E | C | A | E | F |
| M | X | F | F | B | T | N | O | O | P | R | A | H | U |
| I | S | F | N | N | F | A | E | B | C | R | U | V | C |
| L | D | I | T | E | N | E | C | H | N | U | F | R | U |
| K | H | L | V | T | H | R | I | A | R | F | S | F | D |
| P | J | C | D | O | L | P | E | C | T | C | T | C | N |
| O | H | E | F | R | I | V | F | H | F | U | O | V | A |
| E | T | S | F | E | N | E | K | C | I | H | N | T | L |
| F | V | E | L | V | U | G | F | E | F | E | E | V | S |
| V | F | A | F | F | F | N | R | U | H | R | Y | H | I |
| F | G | N | C | V | H | U | L | F | S | A | U | P | F |
| O | V | U | H | C | A | E | B | E | B | H | F | F | V |

cehab - - - - -

fglu - - - - -

ladsin - - - - -

chiarpigoela - - - - -

cfifl - - - - -

yba - - -

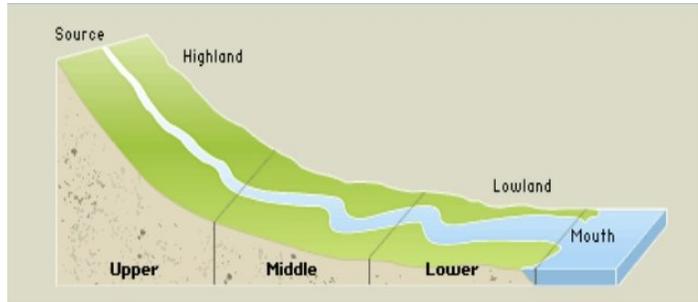
Activity 6. Find out the hidden message.

| | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|----|----|----|---|---|---|----|---|----|---|---|---|
| | T | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 2 | 1 | 7 | 8 | 1 | 2 | 3 | | | | |
| | | | R | L | | Y | | | | N | | | H | | | | |
| | 9 | 6 | 1 | 3 | 5 | 11 | 10 | 12 | 3 | 5 | 9 | 13 | 3 | 10 | 5 | 1 | 2 |

3.-RIVER

A river is a body of fresh water. It is always in movement. Its destination is a sea, an ocean, a lake or another river. A tributary river is when a river opens into another river. A river has got three parts:

- The source is where it begins.
- The mouth is the path of the river between the mountains and the sea.
- The channel is the deepest part of the river.



And three courses:

- High course: it is the first part of a river. The water descends with energy. The erosion is very strong.
- Middle course: the river is lower and slower. It transports the eroded materials.
- Low course: it is the final part of a river. It usually ends in a sea.

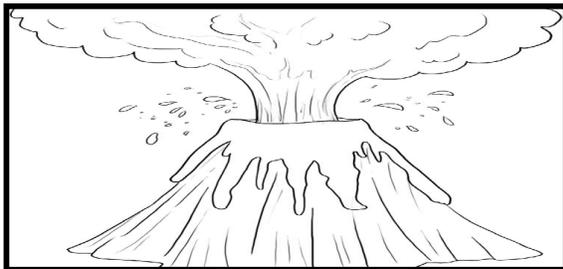
4.-NATURAL HAZARDS

The movement of tectonic plates can produce volcanoes and earthquakes.

4.1 VOLCANOES

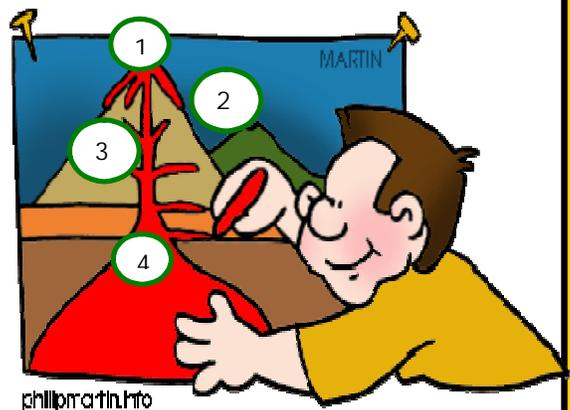
A volcano is a fissure in the earth's crust. It has got magma, gases, smoke, rocks and ashes. A volcano is very dangerous. It has got four parts: vent, pipe, cone and crater.

- The vent is the opening at the Earth's surface.
- The pipe is the tube that connects the interior and exterior of a volcano.
- The cone accumulates eruptive material.
- The crater is at the top of the volcano. It releases eruptive materials like ash and lava.



Activity 8. Colour as indicated:

- The cone of the mountain is brown.
- The magma outside the crater is orange.
- The smoke is grey and white.



Activity 7. Look at the volcano and write its parts.

- 1.-
- 2.-
- 3.-
- 4.-

4.2 EARTHQUAKES

An earthquake is a sudden movement of the Earth. Seismographs measure the intensity of an earthquake. The famous Richter scale is a graphic representation of an earthquake. Scientists say that there are around 6000 earthquakes every year.



When an earthquake is produced on the ocean floor, it can produce a tsunami.

Activity 8. TRUE or FALSE. Correct the false sentences.



..... 1.- The crust has got magma.

.....2.- Alfred Wegener said that the Earth was a unique continent many years ago.
.....

.....3.-The Indian ocean is the largest in the world.

.....4.-The Pacific ocean is cold and shallow.

.....5.-A valley is the flat land between two rivers.

.....6.-A hill is higher than a mountain.

.....7.- Tectonic plates produce faults and folds.

.....8.- Continental shelves are submarine plateaus.