

# Landforms and Oceans

## Words to know:

landform a natural feature of the Earth's surface. (mountains, valleys, peninsulas, etc)

sediment sand or small pieces of rock or gravel that break off from larger rocks.

constructive to build up

destructive to break down

constructive processes that create landforms.

This includes:  
- deposition 16

Constructive  
Processes

include:

- landslides
- volcanic eruptions
- floods

Destructive  
Processes

Processes that  
destroy landforms

Examples:

- weathering
- erosion
- landslides
- volcanic eruptions
- earthquakes
- floods

## CONSTRUCTIVE

Deposition

The dropping,  
or depositing, of  
sediments by  
water, wind,  
ice.

Examples: River  
deltas sand dunes,  
and shells on the beach.

Deposition

A delta is a landform that is formed at the mouth of a river.

Landslides

Mass movements of land due to gravity.

Volcanic eruptions

Volcanoes are mountains with openings in Earth's crust through which magma, gases and ash reach earth's surface.

When the magma erupts from the volcano, the top of the mountain can be changed, 18

Volcanic eruptions either built up or exploded off.

Underwater volcanoes are called seamounts.

Floods Floods occur when a large amount of water covers land that is usually dry.

Rapid erosion can take place and move soil and sediments away (DESTRUCTIVE)

When the flood recedes (goes down), new sediment → 20

is left behind  
and can build  
up rich soil  
deposits  
(CONSTRUCTIVE)

## DESTRUCTIVE

Earthquakes

vibrations  
on Earth's  
surface  
caused by  
sudden  
movement along  
a fault.

A fault is a  
break in  
the Earth's  
surface.

Large earthquakes  
can cause  
landslides.



Earthquakes underwater earthquakes cause tsunamis.

Weathering A process that breaks down rocks.

Any natural process that causes rocks to wear down or break apart is a cause of weathering.

Weathering can be:

- physical (pieces break off)

- chemical (the rock changes what it is made of.)

Water is an important cause of weathering. 23

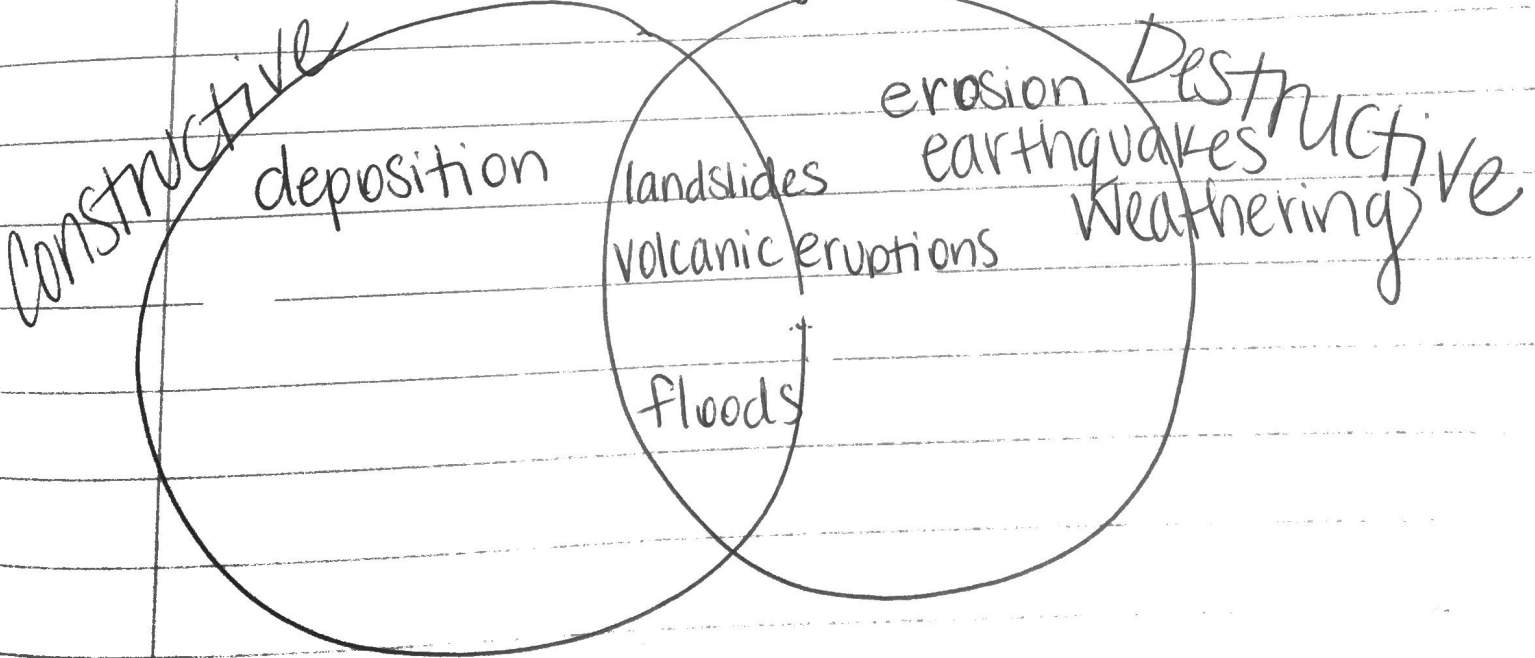
Weathering

can also be caused by:

- plants
- changes in temperature
- ice forming inside cracks in rock.
- acid rain

Erosion

The movement of sediments and soil by wind, water (floods), ice (glaciers), and gravity.



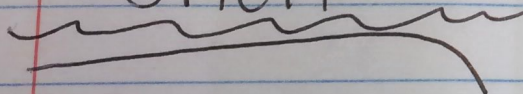
# Parts of the Ocean Floor

The Ocean Floor

Landforms can be above and underwater!

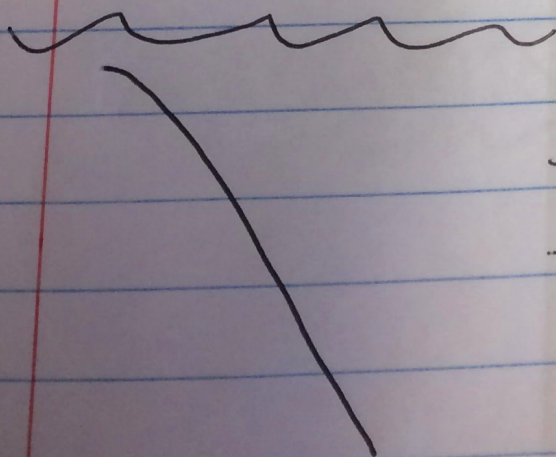
Compare **oceanic** (underwater) landforms to **continental** (above water) landforms.

Continental Shelf

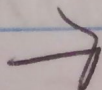


The part of the continent located underwater.

Continental Slope



The steep slope where the continental shelf drops to the bottom of the ocean floor.

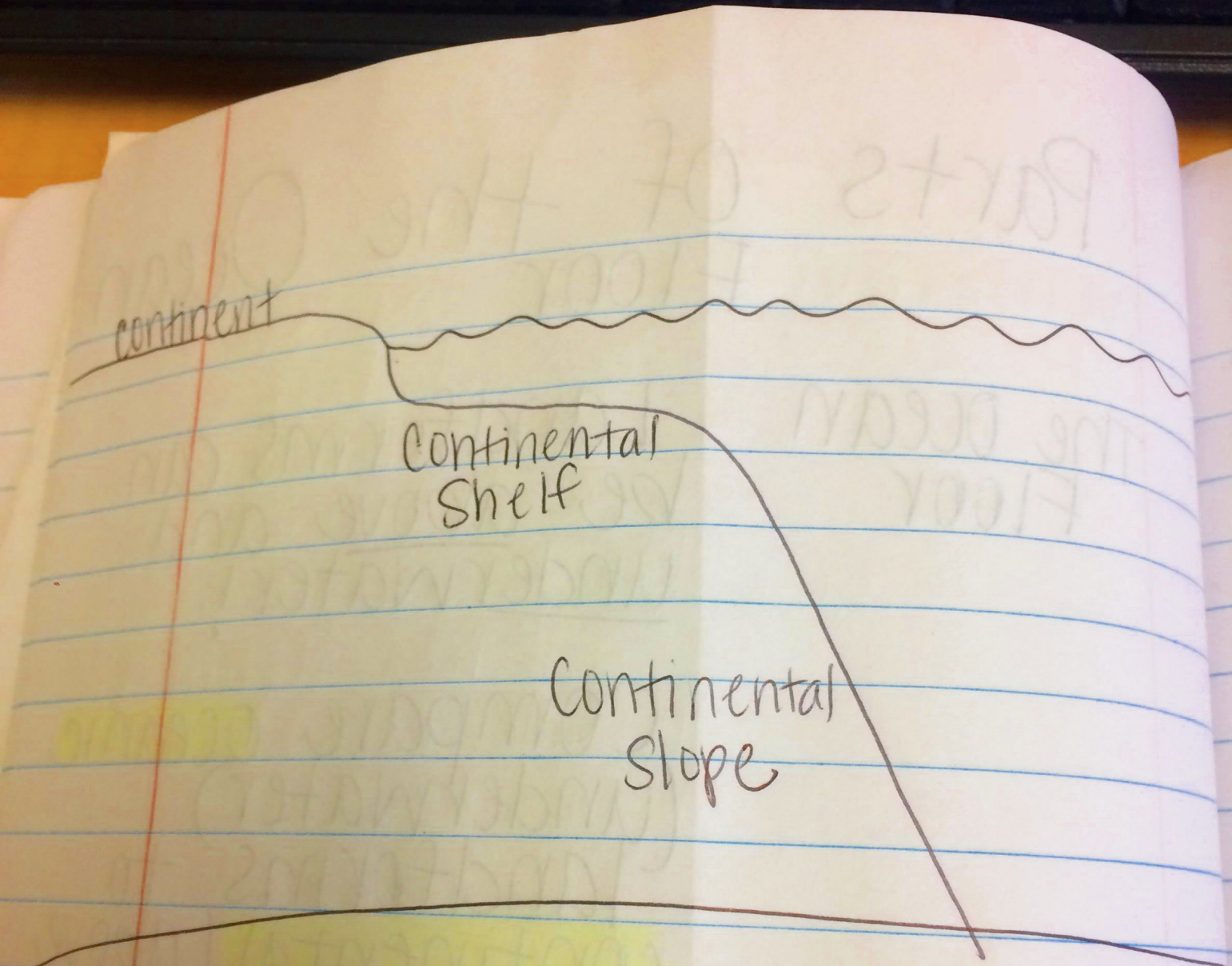




continent

Continental Shelf

Continental Slope

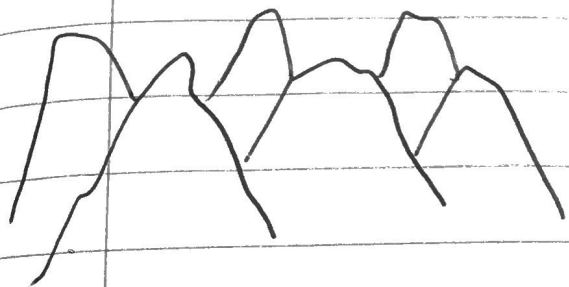


Continental Slope

The depth of the ocean water increases greatly here.

Mid-Ocean Ridge

A central ridge, or mountain range, made of underwater volcanic mountains that divides the ocean floor into 2 parts.



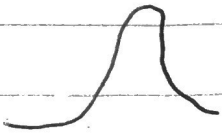
Compare: This is similar to a mountain range underwater.

Seamounts

Volcanic mountains not formed on the mid-ocean ridge.



## Seamounts



Compare: These are similar to volcanos above water.

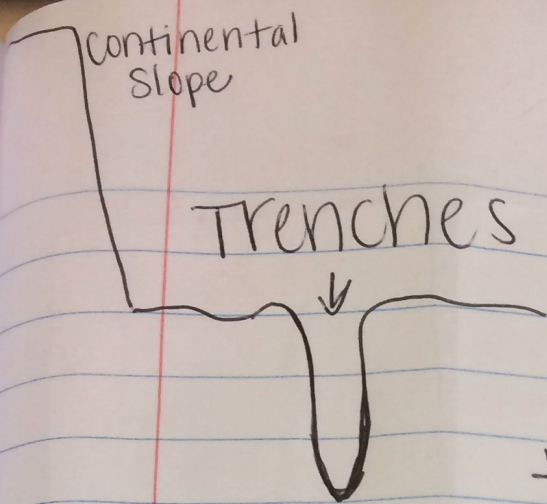
## Rift Zone



In the center of the highest part of the mid-ocean ridge is a narrow trench called a rift.

Underwater volcanic activity here adds mountains to either side of the mid-ocean ridge

Compare: This is similar to a valley above water.



The deepest part of the ocean basin (ocean floor).

★ They are deeper ★ than any valley found on land.

Compare: This is similar to a canyon above water.

Abyssal Plain

Begins where the continental slope flattens.

Flat or gently sloping, smooth area of the ocean floor.

Covers about 54% of the



Abyssal  
Plain

Surface of the  
Earth.

Compare: This is  
similar to a  
plain above water.

## Trench

Deepest part of the ocean basin (ocean floor) and deeper than any valley found on land.

## Mid-Ocean Ridge

Underwater volcanic mountains that divide the ocean floor in 2 parts.

## Seamounts

Volcanic mountains not formed on the ocean ridge.

## Abyssal Plain

Begins where the continental slope flattens.  
Flat or gently sloping, smooth area of the ocean floor.

## Rift Valley (Zone)

Underwater volcanic activity that adds mountains/valleys to either side of the mid-ocean ridge occurs here.

## Continental Slope

Where the continental shelf drops to the bottom of the ocean floor. The depth of water increases greatly here.

## Continental Shelf

The part of the continent located under the water. In some places is fairly shallow, and other parts, it is very deep, but not the deepest part of the ocean.