

# Forces that Change the Land

#	TERM	DEFINITION
1	LANDFORM	<b>Surface features.</b> <b>Ex. Mountains, valleys, canyons, etc.</b>
2	CRUST	<b>The outermost layer of the earth</b> <b>*Made of solid rock/ *The THINNEST layer/ * Includes the continents</b> <b>*The layer on which we live/ * Includes the land under the oceans</b>
3	CONTINENT	<b>Seven large land masses that are part of the crust</b> <b>Ex. Africa, Antarctica, Asia, Australia, Europe, North America, &amp; South America</b>
4	PLATE	<b>Giant pieces of the earth's crust that float on partly melted rock and move SLOWLY over time.</b> <b>When they move, they can bump into each other and cause landforms</b>
5	PLATE BOUNDARY	<b>Places where the edges of plates meet and where the biggest changes in Earth's crust happen.</b> <b>Ex. Earthquakes, volcanoes</b>
6	FOLDED MOUNTAIN	<b>A mountains (landforms) that form when plates push against each other (compression) causing the land to squeeze together and the layers of rock to form folds in the rock. These are the TALLEST mountains.</b>
7	FAULT	<b>A crack in the Earth's crust caused by plate movement.</b>
8	FAULT-BLOCK MOUNTAIN	<b>A mountain (landform) formed when plate push together (compression) resulting in a fault where the land slides UP.</b>
9	RIFT VALLEY	<b>A valley (landform) formed when plates move apart (tension) resulting in a fault where the land moves DOWN.</b>
10	VOLCANO	<b>An opening in the Earth's surface (crust) that lets melted rock, ash, and gases escape. Magma – melted rock <u>below</u> the Earth's surface (crust); Lava – melted rock <u>above</u> the Earth's surface (crust)</b>
11	ERUPTION	<b>The <u>sudden release</u> of melted rock, ash and gases from a volcano.</b>
12	EARTHQUAKE	<b>The shaking of the Earth caused when rock breaks or moves suddenly along a fault.</b>
13	OCEAN BASIN	<b>The bowl-shaped land under the ocean where melted rock breaks through the crust (because it is thin) and mountains and valleys can form</b>

TODAY'S **CRUST** IS DIFFERENT FROM THE WAY IT WAS A LONG TIME AGO. ITS SURFACE FEATURES CAN CHANGE **SUDDENLY** OR OVER **A LONG PERIOD** OF TIME.

## NATURAL DISASTERS

### Volcano-

- An opening in the Earth's surface
- Erosion Occurs SUDDENLY
- Caused by MOVING PLATES
- BUILDS LAND UP

### Earthquakes-

- Shaking of the Earth when a fault occurs
- Caused by MOVING PLATES
- Moves land UP, DOWN, or SIDEWAYS.
- Caused when plates rub against each other (SHEAR force)

Volcanoes & Earthquakes mostly occur at PLATE BOUNDARIES

These boundaries exist along the WESTERN COAST OF THE UNITED STATES, and often occur in the states of California, Oregon, Washington, & Alaska

## WEARING AWAY OF THE LAND OVER TIME

Weathering – The breaking down of rock

Erosion – The carrying away of rock (after it has been weathered)

Deposition – the settling down of rock (after it has been weathered & eroded)

\*Sediment – rock, minerals, sand and dirt

\*WIND & WATER (in the form of rivers, rain, and ice) cause weathering, erosion, & deposition

# CAUSES OF CHANGE IN THE EARTH'S SURFACE (CRUST)

## HUMAN ACTIVITY

Digging – carving out the land creating large wholes

Strip Mining –

scrapping away the land to find minerals causing the earth to erode and add mud and debris to lakes & rivers

Clear-Cutting –

cutting down trees in a large area causing the earth to erode and add mud and debris to lakes & rivers

## MOUNTAINS

- Caused by MOVING PLATES
- Happens slowly over time
- Folded mountains caused by compression has one piece of crust that folds in and are the TALLEST mountains
- Fault-Block Mountains are caused by compression where the crust faults and one piece slides UP.
- Ocean basins contain the LONGEST mountain ranges on Earth where plates move apart (tension) and the land moves down between them. Volcanoes then break through the thin crust and mountains and rift valleys