

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#1**

TYPE OF ACTIVITY: Discussion on The Structure of the Earth

Name: _____ Class No. _____
Grade & Section : _____ Date: _____

TOPIC: The Structure of the Earth

Learning Objectives:

- Enumerate the four distinct layers of the Earth.
- Identify the differences of the layers of the Earth.
- Appreciate the uniqueness of the Earth.

Reference: New Science Links 6 Worktext in Science and Health
Rex Publishing 1st Edition, 2013
Science Quest 5
Sunshine Interlinks Publishing House, Inc.

Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 250-252, 240 - 242

Concept Notes:

- The exterior part of the Earth is composed of lithosphere, hydrosphere and atmosphere.
- The crust is composed of two layers – the dense layer called oceanic crust and a less dense layer called continental crust.
- As a depth increases, the temperature also increases.
- The mantle makes up the largest part of the Earth. This is the layer which continents move.
- Mohorovicic discontinuity or Moho is the boundary between the crust and the mantle.
- The core is the central part of the Earth. It is separated into inner core and the outer core.

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#2**

TYPE OF ACTIVITY: Discussion on the Earth's Major Plates

Name: _____
Grade & Section: _____

Class No. _____
Date: _____

TOPIC: The Earth's Major Plates

- Learning Objectives:**
- Enumerate the present continents.
 - Describe the crustal movement of the crustal plates.
 - Identify the major and minor crustal plates.
 - Enumerate the effects of crustal movements of earth.

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Science Quest 5
Sunshine Interlinks Publishing House, Inc.

Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 250-252, 240 - 242

Concept Notes:

The lithosphere is divided into large and small plates called crustal plates. A crustal plate is a rigid layer of the earth's crust that is believed to drift slowly. **The major or largest plates** are the Pacific plate, the North American plate, the South American plate, the Eurasian plate, the Antarctic plate, the Indo-Australian plate, and the African plate. **The minor or smaller plates** include the Cocos plate, the Nazca plate, the Philippine plate, and the Caribbean plate.

Types of Plate Boundaries:

- 1. Convergent Plate Boundary** – occurs where tectonic plates collide.
- 2. Divergent Plate Boundary** – occurs where two plates move apart from each other.
- 3. Transform Plate Boundary** – occurs where two plates slide past one another.

The Continental Drift Theory was proposed by Alfred Wegener. This theory states that at one time, all major continents were connected and have been part of one supercontinent known as Pangaea.

Completeness:	___
Neatness:	___
Activity 1:	___
Activity 2:	___
Activity 3:	___
Synthesis:	___
Reflection:	___
TOTAL:	___

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#3**

TYPE OF ACTIVITY: Discussion on Earthquake

Name: _____ Class No. _____
Grade & Section: _____ Date: _____

TOPIC: Earthquake: It's Causes and Hazardous Effects

Learning Objectives:

- Describe how an earthquake occurs
- Describe how earthquakes are detected and observed
- Differentiate intensity from magnitude of an earthquake

Reference: New Science Links 6 Worktext in Science and Health
Rex Publishing 1st Edition, 2013
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Exploring and Protecting Our World
Vibal

Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 250-252, 240 - 242

Concept Notes:

Earthquake is the sudden movement or vibration of the crust, the earth's rocky outer layer. It is caused by rock masses that suddenly shift in position. As the rock masses shift into new positions, the energy stored in the rock masses is transmitted onto the surface in the form of seismic waves.

Violent earthquakes are triggered when two plates slide past each other along faults. Within a fault, the weakest part where the slippage of rocks occurs is called the focus or origin. The area above the focus is called the epicenter, where the strong shaking of the ground is felt. As the rock masses slide and slip against each other, the stored energy is released and it moves outward in all directions as seismic waves.

Science 6
FOURTH QUARTER
Activity Sheet #4

TYPE OF ACTIVITY: Quiz No. 1

Name: _____ Score: _____

Grade & Section: _____ Date: _____

TOPIC : Earth's Major Plates

Learning Objectives : Answer each item in the quiz correctly.
Follow directions in the test accurately.
Observe honesty at all times.

Reference : New Science Links 5 Worktext in Science and Health
Rex Publishing 1st Edition, 2013

Authors : Evelyn Larisma, Jan Jason Mariano

Pages : pp. 251-256

CONCEPT NOTES : The lithosphere is divided into large and small plates called crustal plates. A crustal plate is a rigid layer of the earth's crust that is believed to drift slowly. **The major or largest plates** are the Pacific plate, the North American plate, the South American plate, the Eurasian plate, the Antarctic plate, the Indo-Australian plate, and the African plate. **The minor or smaller plates** include the Cocos plate, the Nazca plate, the Philippine plate, and the Caribbean plate.

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SCIENCE 6 FOURTH QUARTER
Activity Sheet **#5**

TYPE OF ACTIVITY: Discussion on the Effects of Earthquake

Name: _____ Class No. _____
Grade & Section: _____ Date: _____

TOPIC: Effects of Earthquake

Learning Objectives:

- Describe the effects of an earthquake
- Describe how earthquakes are detected and observed
- Differentiate intensity from magnitude of an earthquake

Reference: New Science Links 6 Worktext in Science and Health
Rex Publishing 1st Edition, 2013
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Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingo, Ph.D., et al

Pages: 326 – 328, 215- 218

Concept Notes:

Earthquakes occur without warning so people are caught unaware and may suffer injury or death. Buildings, roads and bridges may be damaged by a strong shocks. Earthquakes can also cause other phenomena which can damage life, structures and the land.

Tsunami – is a series of huge waves caused by an earthquake under the sea. These waves travel at about 800 km per hour. Before the tsunami reaches the shore, it slows down.

Ground Rupture – is a visible breaking and displacement of the earth's surface along the trace of the fault, which may be a few meters in the case of major earthquakes.

Landslides and Avalanches – On the sides of the mountains and hills, soil and rocks may slide down and bury towns and neighborhoods.

Fire – this can happen when electrical power and gas lines break. The amount of damage caused by post- earthquake fires depends on the types of building materials used.

Completeness:	___
Neatness:	___
Activity 1:	___
Activity 2:	___
Activity 3:	___
Synthesis:	___
Reflection:	___
TOTAL:	___

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#6**

TYPE OF ACTIVITY: Discussion on Precautionary Measures

Name: _____ Class No. _____
Grade & Section: _____ Date: _____

TOPIC: Precautionary Measures Before, During and After Earthquakes

Learning Objectives:

- Describe how an earthquake occurs
- Enumerate ways to be done before, during and after an earthquake
- Appreciate life

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Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 331-332, 222-223

Concept Notes:

Nobody knows when an earthquake will occur. To be safe from the disastrous effects of earthquakes, every person needs to know what to do before, during and after an earthquake.

Before an earthquake:

1. Develop self-confidence and composure. These will help you deal with any forthcoming disaster.
2. Members of the family should be trained on what to do in case of an earthquake.
3. Have a first aid kit, flashlights, batteries and battery-powered radio available.
4. Remove heavy objects on high shelves.
5. Fasten heavy appliances to the floor.

During an earthquake:

1. Be calm.
2. If you are indoors, get under a table.
3. If you are outdoors, stay away from buildings.
4. Avoid using matches, candles or other open flames.

After an earthquake:

1. Check yourself and other members of the family for injuries. In case of injuries seek first aid.
2. Check water and electric lines. If they are damaged, shut them off.
3. Turn on the radio for emergency instructions.
4. Stay out of damaged buildings
5. Wear shoes or slippers to protect your feet from broken glasses
6. Stay away from broken electric wires.

Completeness:	___
Neatness:	___
Activity 1:	___
Activity 2:	___
Activity 3:	___
Synthesis:	___
Reflection:	___
TOTAL:	___

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#7**

TYPE OF ACTIVITY: Discussion on Volcano

Name: _____
Grade & Section: _____

Class No. _____
Date: _____

TOPIC: Volcano

- Learning Objectives:**
- Describe a volcano
 - Describe how a volcano is formed
 - Enumerate the parts of a volcano

Reference: New Science Links 6 Worktext in Science and Health
Rex Publishing 1st Edition, 2013
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Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 335-336, 224-225

Concept Notes:

A volcano is an opening in the earth's crust where lava, pyroclasts, and gases are ejected onto the surface during eruptions. The most prominent part of the volcano is the **cone**, formed by the mountainous accumulation of volcanic materials. The other parts are the **crater**, which is a steep-walled depression at the peak of the volcano; and the **volcanic vent**, a cylindrical channel that connects the crater or mouth to the magma chamber. Some volcanoes have large craters called **calderas** that can exceed about 1 km in diameter. Calderas are formed when the summit of the volcano collapses during violent or explosives eruptions.

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PCC @ 103: " Be with Jesus, be with the Poor"
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Science 6
FOURTH QUARTER
Activity Sheet #8

TYPE OF ACTIVITY: Quiz No. 2

Name: _____ Score: _____

Grade & Section: _____ Date: _____

TOPIC : Earthquake

Learning Objectives : Answer each item in the quiz correctly.
Follow directions in the test accurately.
Observe honesty at all times.

Reference : New Science Links 5 Worktext in Science and Health
Rex Publishing 1st Edition, 2013

Authors : Evelyn Larisma, Jan Jason Mariano

Pages : pp. 251-256

CONCEPT NOTES : Earthquakes occur without warning so people are caught unaware and may suffer injury or death. Buildings, roads and bridges may be damaged by a strong shocks. Earthquakes can also cause other phenomena which can damage life, structures and the land.

Tsunami – is a series of huge waves caused by an earthquake under the sea. These waves travel at about 800 km per hour. Before the tsunami reaches the shore, it slows down.

Ground Rupture – is a visible breaking and displacement of the earth's surface along the trace of the fault, which may be a few meters in the case of major earthquakes.

Landslides and Avalanches – On the sides of the mountains and hills, soil and rocks may slide down and bury towns and neighborhoods.

Fire – this can happen when electrical power and gas lines break. The amount of damage caused by post- earthquake fires depends on the types of building materials used.

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#9**

TYPE OF ACTIVITY: Discussion on Kinds of Volcanoes

Name: _____
Grade & Section: _____

Class No. _____
Date: _____

TOPIC: Kinds of Volcano

Learning Objectives:

- Describe how a volcano is formed
- Enumerate the different kinds of volcano
- Illustrate the characteristics of a volcano

Reference: New Science Links 6 Worktext in Science and Health
Rex Publishing 1st Edition, 2013
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Authors: Evelyn Larisma, Jan Jason Mariano
Carmelita C. Coronel, Thelma Mingoa, Ph.D., et al

Pages: 336-337, 224-225

Concept Notes:

Kinds of volcano according to the following:

Shape and Composition of the Cone

1. Shield Volcano – has a wide base with gently sloping slides. The cone is made up purely of lava that has poured out and solidified during a mild or quiet eruption.

2. Cinder Cone Volcano – is built almost entirely of loose fragments called cinders. Cinder cone volcano is formed by explosive eruptions.

3. Composite Volcano or Stratovolcano – are composed of alternating layers of lava and cinders. They are formed when volcanic eruptions vary between quiet and violent or explosives.

Activity

1. Active Volcano – a volcano is considered active if it is currently erupting or showing regular signs of activity like earthquake activities and significant gas emissions.

2. Dormant Volcano – are those that have currently erupted and then enter a long period of inactivity. Seismologists have found out that the longer period of

dormancy or inactivity between volcanic eruptions, the greater the chance of having a very explosive eruption in the future.

3. Extinct Volcano – are those that have not shown signs of activity for a long period of time. It has no record of volcanic eruption in the past thousand years. Whether the volcano is truly extinct is often difficult to determine.

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#10**

TYPE OF ACTIVITY: Discussion on Volcanic Eruptions

Name: _____
Grade & Section: _____

Class No. _____
Date: _____

TOPIC: Volcanic Eruptions

Learning Objectives:

- Identify hazards associated with volcanic eruptions
- Identify beneficial aspects of volcanoes
- Describe how a volcano erupts

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Pages: 336-337, 224-225

Concept Notes:

Types of Volcanic Eruption

1. Explosive or Violent Eruption – during explosive eruptions, the lava ejected is torn into shreds, forming pieces of pyroclastic materials called tephra. Explosive eruptions can eject a large amount of materials into the air. Very violent explosive eruptions are called Plinian eruptions, after the Roman naturalist Pliny the Elder. These eruptions can last for several hours to days, ejecting large amount of pyroclastic materials.

2. Quiet or Non-explosive Eruption – Basaltic magma has relatively low silica content. It is less viscous and gases can escape readily from it. As a result, volcanic eruption is mild and gentle flow of lava flows. Mild eruption and quiet flow of lava are typical of the Hawaiian shield cones like Mauna Kea and Mauna Loa.

SCIENCE 6 FOURTH QUARTER
Activity Sheet **#11**

TYPE OF ACTIVITY: Discussion on the Benefits and Dangers of Volcanic Eruptions

Name: _____
Grade & Section: _____

Class No. _____
Date: _____

TOPIC: Benefits and Dangers of Volcanic Eruptions

Learning Objectives:

- Identify the benefits and dangers of volcanic eruptions
- Practice precautionary measures during volcanic eruptions

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Pages: 338-339, 226-227

Concept Notes:

Benefits of Volcanic Eruptions:

1. Agricultural – the greatest resource from volcanic eruption is the land formed by the erupted materials. After a volcanic eruption, the burning lava can turn into the one of the richest or most fertile soil in the world.

2. Energy – Geothermal energy is an alternative source of electricity. People living within volcanic regions use the underground steam as the source of electricity. With a ready supply of water and a steady source of heat, steam can be generated to power turbines that can spin generators to produce electricity.

3. Industrial – Volcanoes contain very rich amount of minerals, such as gold, silver and copper. Volcanic soil is a good source of building materials and, because of its rich mineral contents, it is used as a source of chemicals and industrial materials. It is also used in making pots and other earthen containers and house decors.

4. Economic and Recreational – Volcanoes also can promote tourism. Mayon volcano in Albay and Taal Volcano in Batangas are among the most sought tourist spots in the Philippines.

Dangers of Volcanic Eruptions:

1. Effects of Volcanic Gases – the volcanic gases pose the greatest potential hazard to people, animals, agriculture and properties.

2. Effects of Lava Flows – lava flows destroy everything in their paths – vegetation, field, ranches, forest in the slopes of the volcanic cone, etc. Huge volumes of lava flow can cause massive damage to property and tremendous economic loss.

3. Effects of Pyroclastic Flows – massive debris flow or lahar forms when hot ashes, very fine rock fragments, and hot lava mix with water from nearby lake or river, or when heavy rains occur. Lahar moves from the volcanic vent or fissures on the volcanic cone at great high speed and can travel through valleys and flat areas destroying and burying everything in its path.

4. Effects of Volcanic Activities in the Global Climate – Ecologists theorize that volcanic activities play very important role in reducing global temperature, thereby reducing the overall warming trend.

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Science 6
FOURTH QUARTER
Activity Sheet #12

TYPE OF ACTIVITY: Quiz No. 3

Name: _____ Score: _____

Grade & Section: _____ Date: _____

TOPIC : Volcano

Learning Objectives : Answer each item in the quiz correctly.
Follow directions in the test accurately.
Observe honesty at all times.

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Authors : Evelyn Larisma, Jan Jason Mariano

Pages : pp. 251-256

CONCEPT NOTES : A volcano is an opening in the earth's crust where lava, pyroclasts, and gases are ejected onto the surface during eruptions. The most prominent part of the volcano is the **cone**, formed by the mountainous accumulation of volcanic materials. The other parts are the **crater**, which is a steep-walled depression at the peak of the volcano; and the **volcanic vent**, a cylindrical channel that connects the crater or mouth to the magma chamber. Some volcanoes have large craters called **calderas** that can exceed about 1 km in diameter. Calderas are formed when the summit of the volcano collapses during violent or explosives eruptions