ES3: Unit 1

“How is the Earth Changing”

Study guide

This study guide DOES NOT contain questions from the test. It will prepare you to apply what you have learned from this unit to successfully answer questions. Be prepared to read scenarios NOT discussed in class. Part of the assessment is your ability to apply what you have learned to all different scenarios.

Fill in the table below with ALL possible answers that are listed below:

Line of volcanoes

Chain of volcanic islands

Mountain chain

Trench

Rift Valley

New Rock

Fault line

Mid-Ocean Ridge

|  |  |
| --- | --- |
| BOUNDARY TYPE | FEATURE |
| Convergent boundary  at a subduction zone (o-o) |  |
| Convergent boundary  at a subduction zone (o-c) |  |
| Convergent boundary (collision)  (c-c) |  |
| Divergent boundary on a continent |  |
| Divergent boundary in the ocean |  |
| Transform boundary |  |
| Hot Spot |  |

Fill in the table with ALL the possible answers listed below:

Convergent Boundary (collision, c-c)

Divergent boundary on a continent

Divergent boundary in an ocean

Convergent Boundary at a subduction zone (o-o)

Convergent Boundary at a subduction zone (o-c)

Transform Boundary

Hot Spot

|  |  |
| --- | --- |
| Feature | Boundary Type |
| Line of Volcanoes |  |
| Chain of Volcanic Islands |  |
| Mountain chain |  |
| New Rock |  |
| Rift Valley |  |
| Oceanic Trench |  |
| Fault Line |  |
| Mid-Ocean Ridge |  |

**\*\*You must be able to identify features and make a claim regarding how they formed, and/or you must be able to identify the boundary type and make a claim as to what features you would find.**

What is the underlying cause of tectonic plate movement?

What evidence do we have that tectonic plates move?

Can volcanoes form at divergent boundaries?

If so, how are they different than those formed at Convergent Subduction boundaries?

What is the Law of Conservation of Matter and how does it relate to our study of “How is the Earth Changing?”

**Review Graphing Earthquake Data, as well as the conclusions.**

Why does oceanic crust subduct under continental crust?

When creating a model of Earth’s plates, what scientific principles need to be addressed? (do not list numbers!) \*\*\*You will be asked to decide between 2 models which best illustrates Earth’s plates. Be prepared to support your decision.

**\*\*\*Questions will ask you to choose a Scientific Principle that is best supported by the evidence provided.**