Study Guide: Unit 1

How is the Earth Changing?

Review all quizzes from this unit. Some test questions will be based on previous questions from quizzes.

Review scientific principles.

Review Lesson summary tables.

Review lesson resources found at mrslafrate.weebly.com

**This study guide is broken down by lesson. Review the pages/questions/labs indicated. Be prepared to give scientific explanations for phenomena in this unit. Be prepared to answer the driving question: How is the Earth Changing? and support your answer with evidence and the scientific principles in this lesson.**

**Lesson 1**: p. 1-10

Review patterns that were found among earthquakes, volcanoes, elevation, and plate boundaries.

**Lesson 2:** p. 11-25

What was Wegener’s Theory of Continental Drift?

Review table of Wegener’s evidence (p. 16)

What was the one thing that Wegener could not adequately explain to his critics regarding his theory of continental drift?

(p. 24-25) What was discovered that finally gave credibility to Wegener’s Theory of Continental Drift?

**Lesson 3** (p. 27-28)

Models: What are the important features of a model of Earth’s plates? What should the model include to be considered a good model?

Which made the best model and why? Play dough and 1) paper, 2) crackers, 3) paper and crackers, 4) M&Ms, 5) lines drawn with a pencil or 6) cracked hard boiled egg. You should be able to identify the advantages and limitations of each model. (pictures of models available under Lesson 3 resources on mrslafrate.weebly.com)

\*\*Remember: Models should be designed to explain or predict natural phenomena (in our case, plate boundaries).

**Lesson 4** (p. 29-34)

Review properties of the mantle and what causes plate movement.

**Lesson 5** (p. 35-44)

What are all the ways in which plates can interact with each other?

What type of events/features form at each individual interaction?

Why does one plate subduct beneath another plate?

Review table on p. 43

Review making sense questions on p. 44

**Lesson 6** (p. 45-51)

How do volcanoes form?

What is the difference between volcanoes formed from a hot spot and those formed by subducting plates?

How does the lab in lesson 6 represent volcano formation?

Be prepared to write a scientific explanation about how volcanoes form.

**Lesson 7**

In this lesson, we applied what we learned about the features that form at each type of plate boundary to identify direction in which the plates are moving.

Be prepared to use features on a map to help you identify boundary type and direction of plate movement.

**Lesson 8** (p. 55-57)

Be prepared to write a scientific explanation as to where new plate material comes from.

**Lesson 9** (p. 58-67)

Review specifically summary tables filled out during this lesson.

Review diagrams and labels on page 60 and 64.

**Lesson 10**

Review table of case study sites. You will use these case study sites as evidence supporting how the Earth is changing.