

Review for Test 2

ESC 115 Physical Geology

Last Revised, Spring, 2015

Chapter 3

1. Be able to sketch plate interactions for convergence, divergence, and transform boundaries. You should be able to do six sketches. Know example locations for each (e.g., Andes).
2. Who was Harry Hess? Make sure you know the answers to the questions about *Birth of a Theory* on the course web site at http://www.daleeasley.com/resources/Physical/tectonics_questions.pdf.
3. Be familiar with the essay about Lake Nyos. What is the impact of dissolved gases upon eruptions?
4. What are three indicators that a volcano is soon to erupt? Think of other natural hazards for which there are indications prior to their occurrence (precursor events).
5. What are the the three tectonic locations at which most volcanoes occur? What is a pillow basalt?
6. Describe the main events of the eruption of Mt. St. Helens.
7. Be able to compare the hot spot at Yellowstone with the Hawaiian hot spot.

Louisiana Geology

1. Know the main features of Louisiana geology using the questions handed out in class (online at <http://www.daleeasley.com/resources/Physical/LAQuestions.pdf>).
2. What was the role of the opening of the opening of the Gulf of Mexico in petroleum formation?
3. How was the opening of the Gulf similar to today's East African Rift?
4. What is a salt dome?
5. How did the Mississippi delta switch locations?

Chapter 5

1. Be able to distinguish texture from composition in igneous rocks. What are the main six types we examined in lab? What is the impact of cooling rate upon texture?
2. What are the plate tectonic settings where each of the rock types is found?
3. What are obsidian and pumice?
4. Why hasn't the Earth already cooled off?
5. Be able to explain a phase diagram of temperature and pressure.
6. What are Mt. Kenya and Ship Rock?

Chapter 10

1. What are the main features of the continental margin and the ocean bottom? How do we know?
2. What is a black smoker?
3. What is an atoll? How does it form?
4. How are active and passive margins different?
5. How do the east and west coasts of the U.S. differ from each other and from north to south?
6. What are five different types of data that support plate tectonics?

Chapter 11

1. What are four processes that form mountains?
2. Be able to identify the world's major mountain ranges from a world map and discuss how each range formed.
3. Be able to connect the rocks (igneous, metamorphic, and sedimentary) and processes of the rock cycle to the tectonics which helped form them.
4. What is the relationship between mountain building, plate tectonics, and the rock cycle?
5. Be able to look at a rock and predict the tectonic setting in which it formed.

Thought Questions

1. How does geology connect to your favorite vacation spot?
2. How does geology connect to the features of your favorite park?
3. How does geology connect to jazz?