Earth Science Unit Guide

Earthquakes in California Unit

State Standards:	CLASSLRs:
▲ Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. ▲ Develop a model to illustrate how Earth's internal and surface processes operate at different spatial and temporal scales to form continental and ocean-floor features. ▲ Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection. ▲ Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	▲Character by: Acting with personal and academic integrity. ▲Leadership by: Engaging in cooperative learning experiences. ▲Attitude: Engaging in classroom activities. ▲Scholarship by: Engaging in higher-level thinking skills. ▲Service by: Assisting others in daily interactions

On test day you should be able to answer all of the following questions:

1. What is the evidence for and what is the mechanism for plate tectonics? (Sketch the interior of the Earth, show and explain how and why the crust moves, and the seismic waves)
2. What evidence of plate tectonics can be found in oceanic and continental crust that can explain the ages and movement of the crust?
3. What are the structures that form at the three plate boundaries, you can sketch them, and explain how they form (the different forces that construct and destroy that make them the shapes they are)?
4. Why are some earthquakes of the same size (magnitude) more destructive than others of the same size?
5. How do earthquakes occur and explain their direct and indirect impacts?
6. What hazards are associated with plate tectonics?

Investigation and Experimentation skills and concepts

1. Know the difference between hypothesis and theory.
2. Understand the time intervals that are characteristic of natural phenomena.
3. Solve scientific problems by using mathematical skills and equations.
4. Recognize the cumulative nature of scientific evidence.

Vocabulary/Concepts		
Continental Drift	Pangaea	Plate Tectonics
Convergent Plate Boundary	Divergent Plate Boundary	Transform Plate Boundary
Paleomagnetism	Hot Spot	Focus
Epicenter	Fault	Liquefaction
Convection	Trench	Ridge or rift valley
Seismic Waves		