Laarman Lesson Plan

Class: Earth Science Unit: The Forces of Earth Impacting Humanity: Earthquakes and Tsunamis Standards: ESS3-1, PS4-1

Topic: Semester Intro Date: 12/12/16

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| **Procedure** | Final round of student presentations on system interaction |

Topic: Unit Intro Date: 12/13/16

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| **Materials, Prep** | Ch. 12 PowerPoint |
| **Objective** | Generate interest and engagement in the subject of earthquakes and tsunamis. |
| **Anticipatory Set**  **-connection, motivation, relevance** | 1. Introduction: Humans have an impact on Earth, and Earth’s forces and processes impact humans; sometimes humans are a cause of the events that impact them, other times they have nothing to do with it. 2. Vid clip (start at 0:15): <https://www.youtube.com/watch?v=gbuxGonBwpM> 3. Vid clip (watch through 4:00, turn off volume): <https://www.youtube.com/watch?v=3xKMFzKOIfQ> 4. Earthquake slideshow: <http://www.teachingboxes.org/earthquakes/lessons/lesson1.jsp> |
| **Procedure** | 1. Discussion: What’s going to determine how devastating to humans these events are? 2. Begin study of the anatomy of an earthquake    1. Discussion: prior knowledge    2. Notes: 12.1 PowerPoint |
| **Closure** | Summary questions |

Topic: Anatomy of an Earthquake and a Tsunami Date: 12/14/16

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| **Materials, Prep** | Ch. 12 PowerPoint |
| **Objective** | Students identify the anatomy of earthquakes and tsunamis |
| **Anticipatory Set**  **-connection, motivation, relevance** | Review yesterday’s learning. |
| **Procedure** | 1. Ch. 12 PowerPoint: anatomy of an earthquake and tsunami; causes of earthquakes and elastic rebound 2. Fault type animation at <https://ees.as.uky.edu/sites/default/files/elearning/module10swf.swf> 3. Tsunami animation at <https://www.youtube.com/watch?v=StdqGoezNrY> and <https://www.youtube.com/watch?v=Wx9vPv-T51I> |
| **Homework** | Study for quiz tomorrow |

Topic: Earthquakes and Humanity Date: 12/15/16

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| **Materials, Prep** | Earthquake and Tsunami Quiz; Earthquakes/Tsunamis and Humanity graphic organizers |
| **Procedure** | 1. Quiz: Earthquake and tsunami basics 2. Pass out/introduce graphic organizers: have these out and fill them in as we explore various disasters and efforts underway to mitigate them 3. Begin “The Quake” PBS video on the Haiti earthquake of 2010 |

Topic: The Haiti Quake Date: 12/16/16

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| **Anticipatory Set**  **-connection, motivation, relevance** | How big was the Haiti earthquake? What made it so much more devastating than many other quakes of the same size or larger? |
| **Procedure** | 1. Complete “The Quake,” pausing periodically to discuss the issues raised. 2. Study update on the 5th anniversary at <http://www.pbs.org/newshour/rundown/photo-essay-haitis-tent-camps/> |
| **Closure** | Discuss what was learned: Why was the impact of this quake so devastating? What can be done to make sure history does not repeat itself? |