

Nova Deadliest Earthquakes

Haiti

- 1 Describe the devastation that occurred in Haiti in January 2010.
- 2 How did scientists know that an earthquake was inevitable in Haiti?
- 3 Which type of boundary caused the Haitian earthquake?
- 4 How fast do plates move? What is the source for the movement?
- 5 The energy released by earthquakes is equivalent to _____.
- 6 How many times stronger is a magnitude 8.0 earthquake than none at all?
- 7 The faster the movement of plates the more frequent the earthquakes. (True or False)

California

- 8 What is the name of the main fault in California?
- 9 How long is the fault in California and does it move relatively fast or slow?
- 10 The Northridge Earthquake occurred in 1994 on the San Andreas Fault was a magnitude 6.7 but caused _____ deaths and _____ billion dollars worth of damage
- 11 What is the Great Southern California Shakeout and why did people in Southern California go through this exercise?
- 12 Why are scientists drilling in the desert of Southern California?

Chile

- 13 February 2010 there was a massive earthquake in Chile that was a magnitude _____. It was the 5th largest earthquake recorded. Describe the devastation of this earthquake.

- 14 What type of boundary is found between the Nazca and South American Plates?
- 15 What was found on the beach to demonstrate to how much power the earthquake had?
- 16 When massive amounts of energy are released under the water at subduction boundaries, _____ can occur.
- 17 Why are tsunamis so destructive?

North America – Cascadia Fault

- 18 Which areas are affected by the Cascadia Fault?
- 19 Why are scientists collecting and storing mud samples at Oregon State University and how do they tell earthquakes' stories?
- 20 A Mega thrust is expected in the next 50 years in Cascadia which will result in a massive _____ and a _____.
- 21 What subtle indicators are scientists observing in the forest that might be excellent predictors of future earthquakes?

Predicting and Preparing for Earthquakes

- 22 Why can earthquakes trigger other earthquakes and where was this observed in 2010?
- 23 Which wave arrives first? Second?
- 24 How can early P-wave warning systems help decrease death and destruction in earthquake prone areas?
- 25 Why were there so many more deaths in Haiti than in other areas with large populations? What are some strategies that builders can use to decrease death and destruction in earthquake prone areas?