Earthquake Prediction Module

Introduction: Earthquakes cause billions of dollars of damage. You have been tasked to use a model of a fault to develop and theory of Earthquake prediction. As you very well may know Rocks under great pressure behave elastically through tensional stress. Your model of a fault will consist of the material listed below.

Learning Objective: I can develop and utilize a model; I can analyze data

Question: How can Earthquakes be predicted?

Materials: Block of Wood

Rubber Bands

Strings

Spring scales

Weights of varying mass

Problem: How does increasing mass on block of wood effect the force required to generate an earthquake?

Procedure: a. Needs to be written in step-by-step.

b. Identify the variables of the experiment (Control, Independent, and Dependent)

c. Complete multiple trials of each weight.

Data and observations: Record all data in table.

Analysis: Average the trials. Graph results.

Conclusion: 1. Based on your results is it possible to accurately predict how often Earthquakes happen?

2. Compare the results of different weights and force.

3. How does force compare to distance traveled?

4. Based on this lab, why is there normally many smaller quakes than larger quakes?