



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Melany Arriola; Camila Fernandez	Project Number 35105
Project Title Landslides, Soil Types, and Buildings	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The problem we will solve during this experiment how do soil types and varying slopes affect the durability and resistance of a buildings base during a landslide.</p> <p>Methods/Materials</p> <ul style="list-style-type: none">o 5ft. Vinyl rain guttero 16 clay brickso A bag of potting soil, sand, and landscaping rocks (gravel)o Hose <p>We used dirt to symbolize the loam soil, sand to represent the sandy soil, and gravel for the clay soils. We built one main building made out of Lego blocks that stood 30cm tall. We created two different land slopes with a 5 foot long gutter and several bricks. The first slope was 24.4 degrees, while the second slope was 31 degrees. We filled the gutter with one type of soil and placed the building inside. We sprayed water with a hose on #mist# mode until the building toppled over.</p> <p>Results Gravel was the strongest soil, while dirt was second and sand was last. All test worked better on a 24 degree slope than on a 31 degree angle. The raft foundation helped the building stand for longer than the deep foundation.</p> <p>Conclusions/Discussion The building that lasted the longest time proved that the gravel was the strongest terrain out of the three. The best foundation was the raft foundation, also known as the a base</p>	
Summary Statement Our project is about landslides, soil types, and buildings	
Help Received	