

Students Aren't Taking Geology for Granite

Pasadena Fourth Grade Elementary Students Explore Erosion

Students in Mr. LeRea's fourth grade class at Pasadena Elementary School in the Plainview-Old Bethpage Central School District explored the effects that vegetation has on erosion as part of their Shaping the Earth unit which focuses on the effects of the Earth's slope of erosion, the effect of vegetation on the rate of erosion, rock layer formation and fossil evidence.

Students conducted experiments using a variety of materials such as soil, sand, and gravel to enhance their knowledge of erosion, as well as the effects vegetation has on it. The use of foam construction tiles helped the students understand rock formation and the different layers. The class utilized BrainPOP Jr. to show the tectonic plates' effect on the layers of land, which in turn created earthquakes.

As a culmination activity, students had to construct a two-story structure using mini marshmallows and toothpicks. They became engineers; and when the design was finished, students placed the structure in a tin filled with ping pong balls or Jell-O. The class then simulated an earthquake by moving the tin. Students had to discover if their structures were able to withstand the earthquakes. Students could alter their structures after one or two attempts.

The Plainview-Old Bethpage Central School District encourages students to examine and demonstrate their knowledge of science and geology by self-exploration. Experiments like this one set the foundation for allowing students to gain an interest in geological matters such as energy sources and sustainability, climate change, and the impacts of developments on the environment.

Photo 1-4: Students constructing a two-story structure using mini marshmallows and toothpicks before placing the structure in a tin filled with ping pong balls or Jell-O, then simulated an earthquake by moving the tin, observing if their structures were able to withstand the earthquakes.



