



Communicate science: an example of food related hands-on laboratory approach

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The Laboratorio Didattica e Divulgazione Scientifica of the Istituto Nazionale di Geofisica e Vulcanologia (INGV's Educational and Outreach Laboratory) organized activity with kids to convey scientific knowledge and to promote research on Earth Science, focusing on volcanic and seismic hazard. The combination of games and learning in educational activity can be a valuable tool for study of complex phenomena. Hands-on activity may help in engage kids in a learning process through direct participation that significantly improves the learning performance of children. Making learning fun motivate audience to pay attention on and stay focused on the subject. We present the experience of the hand-on laboratory "Laboratorio goloso per bambini curiosi di scienza (a delicious hands-on laboratory for kids curious about science)", performed in Frascati during the 2013 European Researchers' Night, promoted by the European Commission, as part of the program organized by the Laboratorio Didattica e Divulgazione Scientifica in the framework of Associazione Frascati Scienza (<http://www.frascatiscienza.it/>). The hand-on activity were designed for primary schools to create enjoyable and unusual tools for learning Earth Science. During this activity kids are involved with something related to everyday life, such as food, through manipulation, construction and implementation of simple experiments related to Earth dynamics. Children become familiar with scientific concepts such as composition of the Earth, plates tectonic, earthquakes and seismic waves propagation and experience the effect of earthquakes on buildings, exploring their important implications for seismic hazard.

During the activity, composed of several steps, participants were able to learn about Earth inner structure, fragile lithosphere, waves propagations, impact of waves on building ecc..., dealing with eggs, cookies, honey, sugar, polenta, flour, chocolate, candies, liquorice sticks, bread, pudding and sweets. The activity was successful as more than 500 kids of different ages participated with great enthusiasm, as well as they parents, and gave the chance to explore and manipulate even complex scientific arguments without getting the feeling of having doing this.