

"Land of Volcanoes" workshop: a first step in Earth Sciences for "L'Alzina" Public School primary students (4-5 years old)

Jordi Cortés (1), Adelina Geyer (1), and Mabel Díaz (2)

(1) Institute of Earth Sciences Jaume Almera, CSIC, Barcelona, Spain (ageyer@ictja.csic.es), (2) Escola "L'Alzina", Molins de Rei, Barcelona, Spain

"Land of Volcanoes" is a scientific outreach workshop devised by Adelina Geyer, researcher of the Institute of Earth Sciences Jaume Almera, ICTJA-CSIC. The workshop proposes an approximation to the world of volcanology through the explanation of different concepts related to these geological phenomena: its origin and its characteristics, magma eruptions and their associated hazards, etc. Over the last years, Geyer has developed the workshop in the context of different outreach activities for an audience formed, not only but mainly, by secondary school students.

At the beginning of 2016, as a result of different informal contacts between ICTJA-CSIC Communication Unit and Mabel Díaz, teacher of the "L'Alzina" public school (Molins de Rei), arose the idea of developing Geyer's workshop in front of 26 students aged 4-5 years old, primary students.

Díaz explains that it is "in the age ranged between 0 and 6 years when observation and hands-on activities are important elements of the learning process", although she adds that "primary students are usually not seen as potential audiences of this type of outreach activities and workshops". Díaz says that "Science is simple: it is about observing, asking questions and finding answers, the same that children, even the smallest, do constantly."

Adelina Geyer accepted the challenge of conducting the "Land of Volcanoes" workshop in front of 4-5 year old children, although it was necessary to adapt its format and content to the new audience.

Meanwhile, students prepared the session following the same process used in the project work system employed at the school and that started from two questions: "What do we know about volcanoes? What we want to know about them?"

On June 3rd 2016, Adelina Geyer conducted "Land of Volcanoes" workshop at l'Alzina public school in front of a classroom of 4-5 years old students.

The activity was divided in two parts with a total duration of 45 minutes:

1) Brief introductory talk: this part included a presentation and introduction to scientific activity, the structure of the Earth and the volcanoes which was complemented by graphic panels and real samples of volcanic rocks that could be touched by children.

2) Experimental and hands-on activities: in this part a small scaled simulation of a lava flow and the elaboration of a magma lamp was carried out.

Later that day, pupils evoked in group their experiences and ended up drawing their personal vision of the session. According to Mabel Diaz, the explanation through drawing is "the richest way because students ad the emotions generated by the activity" and remembers that "learning is not possible without emotion".

We would like to show in this communication how this experience was conducted in front of an unusual type of audience in the ICTJA-CSIC outreach activities.