



MAKE YOUR OWN VOLCANO

Geography | Geology | Chemistry | Mother Language | Arts



MED
EDUC



Erasmus+



NATURAL HAZARDS

PEDAGOGIC CONTENT:

- Eruption,
- Tectonic plates
- Magma
- Lava
- Chemical reactions

PRE-REQUISITES:

- Computer skills

NEW COMPETENCIES TARGETED/LEARNING OUTCOMES:

STUDENTS WILL BE ABLE TO:

- Create by using simple materials a volcano eruption
- Understand volcano formation and types
- Identify key features of volcanic activity
- Create a chemical reaction
- Identify images and videos of real active volcanoes in Mediterranean Basin



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VOLCANO



DESCRIPTION:

IMPLEMENTATION

-  #1: (In the classroom). Educator activates prior knowledge by playing a video of a volcanic formation, eruption (e.g. <https://youtu.be/VNGUdObDoLk>)
-  #2: (in the classroom). Educator asks students to sketch a volcano and label it with the appropriate vocabulary words (eruption, lava, magma, mantle, tectonic plates, etc.)
-  #3: Educator divides the students in pairs and by using their sketch as a prop, they discuss each other about what causes a volcanic eruption and they keep notes in the worksheet.
-  #4: (In the ICT lab). Educator asks the students to work in pairs and to find information about the most popular volcanoes in their region or in Mediterranean basin generally and keep notes from their findings.
-  #5: (in the science lab). Students in small groups are provided by some common materials from our daily life to make an experiment. They will represent a volcanic eruption and will get an idea of what it might look like when a volcano erupts flowing lava. This experiment presents how a chemical reaction can create the appearance of a physical volcano eruption.
-  #6: (in the science lab). Educator gives the following instructions to the students for the experiment:
- Instructions**
- ✓ Mix the red coloring and baking soda in a small bowl until it's pink in color.
 - ✓ Use a funnel to put this dry mixture into the bottle. To give the volcano a more pyramid/mountain shape use air dry clay to create the slopes of the mountain around the bottle.
 - ✓ When you're ready for it to erupt, add in the vinegar and watch the lava ooze out.
-  #7: (In the science lab). Each group demonstrates the experiment, and they keep notes about the results.
-  #8: (In the science lab). All the groups discuss about the type of simulation the explosion represents
-  #9: (in the classroom). Students make a poster with all the information they found through their research

Type of activity  information research, experimental activities, exhibition

Target audience  From 12 years old

Place  Science lab, ICT lab, classroom

Material needed  400 ml of white or red vinegar
Food coloring
Baking soda
Air dry clay
Empty 2-liter soda bottle, or any other kind of plastic bottle
Gloves, funnels, spoons, pencils, worksheets, etc.

Duration of activity  Implementation : 1-3 hours

Authorship  HCMR (Education Unit)
No authorization required

Links  <https://geology.com/volcanoes/volcanic-hazards/>

<https://geology.com/teacher/volcano.shtml>

<https://sciencebob.com/make-your-own-volcano/>

Notes by author  Educator should activate prior knowledge of students



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