

Europeana Learning Scenario

Title

GeoChem Volcanic Eruption

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Summary

Table of summary

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| Subject | Geography, Chemistry |
| Topic | Volcanoes – geographical and chemical background |
| Age of students | 14-15 |
| Preparation time | 45' |
| Teaching time | 130' |
| Online teaching material | http://volcano.oregonstate.edu/ https://kahoot.com/ |
| Offline teaching material | Paper, glue, cardboard, scissors, chemicals |
| Europeana resources used | https://www.europeana.eu/portal/en https://www.europeana.eu/portal/en/search?f%5BLANGUAGE%5D%5B%5D=en&f%5BREUSABILITY%5D%5B%5D=open&f%5BTYPE%5D%5B%5D=IMAGE&q=volcano&view=grid |

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Integration into the curriculum

Students learn about landscape forming in the 1st grade of grammar school. They learn also about volcanoes – how and where they build themselves, parts of the volcano, types of volcanoes, types of eruptions and famous volcanoes. In Chemistry class they learn about ores that build volcanoes.



Aim of the lesson

Students will be able to label parts of the volcano and recognize the type of a volcano on different photographs and pictures, and they will make a 3D model by using a detailed map. They will also name the ores and get to know the chemical background of volcanic eruptions.

Trends

Collaborative learning, student-centred learning, peer learning, assessment, PBL

21st century skills

Communication, collaboration, developing social skills, creativity, problem-solving and informational and ICT literacy

Activities

| Name of activity | Procedure | Time |
|--------------------------------|--|------|
| Get to know me | The Geography teacher explains basics about volcanoes (15') and gives a worksheet with tasks needed to be solved or answered at the end of class. Pupils have 10 minutes to explore volcanoes both from the geographical and chemical point of view. | 25' |
| Making a volcano | Teacher divides students into groups of four. They use resources from http://volcano.oregonstate.edu/topographic-cardboard-volcano to make a model of the volcano and label visible parts of the volcano. | 50' |
| Europeana and volcanoes | In groups students explore Europeana collection in order to find and recognize types of volcanoes and eruptions. They look for the geographical and chemical background of the volcanoes they found. | 30' |
| Test your knowledge | Students make short Kahoot quizzes for other groups to check their knowledge about volcanoes. | 10' |
| Volcanic eruption | Chemistry teacher makes a simulation of a volcanic eruption in the classroom with some hazardous chemicals. Students get worksheets for homework to do the experiment with harmless chemicals. | 5' |

Assessment

The models of volcanoes will be exposed at the Science Fair in School. The best project due to the votes of the jury will receive a price.

***** AFTER IMPLEMENTATION *****

Student feedback

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Teacher's remarks

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About the Europeana DSI-4 project

[Europeana](#) is Europe's digital platform for cultural heritage, providing free online access to over 53 million digitised items drawn from Europe's museums, archives, libraries and galleries. The Europeana DSI-4 project continues the work of the previous three Europeana Digital Service Infrastructures (DSIs). It is the fourth iteration with a proven record of accomplishment in creating access, interoperability, visibility and use of European cultural heritage in the five target markets outlined: European Citizens, Education, Research, Creative Industries and Cultural Heritage Institutions.

[European Schoolnet](#) (EUN) is the network of 34 European Ministries of Education, based in Brussels. As a not-for-profit organisation, EUN aims to bring innovation in teaching and learning to its key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners. European Schoolnet's task in the Europeana DSI-4 project is to continue and expand the Europeana Education Community.