

Science is just around the corner: Outside and inside the classroom

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In this poster two activities will be presented, one outside and the other inside the classroom, both showing how science is easy to understand and takes part in everyday life.

Sintra is a geological/biological rich area to explore.

The Sintra hills are a small igneous intrusion, metamorphosing and deforming the surrounding sedimentary rocks. They have an E-W orientation and form a natural barrier to the N-NW winds, promoting a micro-climate that is moderately humid in the Sintra hills and semi-arid in Cabo da Roca. Teachers consider this area as an outdoor laboratory due to its geological and biological diversity.

A Geo-Paper was developed (a walk evolving through a set of stops with observations/clues/questions), so participating students are able to observe and understand the importance of rocks in the village's buildings and their relation to the local/regional/national geology. The final stop is a guided tour to Sintra Natural History Museum.

This is one of many activities to explore the wide choice of resources this area has to offer. Others include: walks in the forest to photograph species, recognize biodiversity and spot/report environmental issues; field-trips to visit geological spots in the Sintra-Cascais Natural Park that will enable students to make a virtual tour in Google maps and elaborate the geological history of the area.

‘Science in Action’ club: Where Primary School Meets Science

The ‘Science in Action’ Club is an extra curriculum activity for 7th, 8th and 9th grade students, which takes place once a week and is run by a Biology/Geology and a Physics/Chemistry teacher. One or two activities are chosen, per week, to be carried out by the students, under the supervision of the teachers, in compliance with the rules for behaviour and safety in the laboratory.

The main goals to be achieved are: motivating students towards Science, giving them the opportunity to learn by doing, complementing the knowledge acquired during the science classes and developing the minimum skills to carry out laboratory experiments within safety standards. The students will learn how to be independent, to decide, solve problems and adapt to new situations as well as to be able to work individually and as part of a team.

The students' skills, motivation and commitment will be shown during the “Spring Week”, the last week of the spring term. It is during this week that ‘Primary School meets Science’ as the 3rd and 4th grade students visit the Open Laboratory of the Science in Action Club. The students will choose the activities to be shown and make sure all the materials needed are ready to be used and are involved in the organisation of the Open Laboratory. Each group of students will be responsible for running one activity to the 3rd and 4th grade students and to explain the final results.

Integrating the area where we live in the subjects we teach and involving students in practical activities are important steps towards motivation and to promote learning.