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The Museum and Laboratory of Geology as a space that promotes local and regional geological heritage

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About six years ago a collection of rocks, minerals and fossils was donated to Lousada School Grouping by the hand of Engineer Rui Couto Martins's widow. This collection, which had been made for decades, constitutes a legacy of relevant scientific, didactic and patrimonial value.
After transporting the lithological complex to the school, subsequent organization and classification of the various materials was carried out within the Curricular Department and in active collaboration with teacher Hugo Novais, who helped creating the museum and laboratory of Geology. This space, later christened Engineer Rui Couto Martins Museum and Laboratory of Geology, constitutes an area of excellence exclusively dedicated to the geological legacy existing in Portuguese public schools.
Associated with the museum, there is an interactive area where activities of varying degrees of complexity are developed with students. For example, the possibility of studying the diversity and geological history of the county of Lousada; determining the density of mineral samples; measuring the natural radioactivity of various samples; using a petrographic microscope associated with a digital image capture system; scientifically classifying diverse samples of fossils, rocks and minerals.
The laboratory and the museum are important spaces complementary to the Earth Science classes; they allow you to work with students from 11 to 18 years of age. Along with this curricular work, there is another extracurricular one, which comprises the organization of field trips to the geological heritage of the region, workshops, school work done by the students and guided tours to this space.
Among the field trips associated with the Geology Museum and Laboratory is one held in the counties of Lousada, Paços de Ferreira, Penafiel and Paredes. This is a region essentially constituted by magmatic and metamorphic rocks associated with the Varisca orogeny. The intention underlying this trip was to create an environment of proximity between the scientific and non-scientific world, that is, to bring the students closer to science; to arouse curiosity and sensitivity for subjects related to Geology; to develop the spirit of observation in outdoor activities; to motivate the students, giving them the opportunity to learn from the knowledge acquired in class; to develop minimum skills so as to enable students to perform laboratory work and to provide students with tools that allow them to be autonomous by dealing with problem-solving, adapting to new situations and accomplishing teamwork.
The preparation of the visit followed the model recommended by Nir Orion. A pre-trip, in which the Museum and Laboratory of Geology plays a major role in the decrease of the concept of "novelty space"; a trip, where several outcrops were studied and samples for analysis in the laboratory were collected; and a post-trip, where the samples collected in the field were analysed and studied in the classroom and in the laboratory.