



Engaging students and teachers in meteorology and atmospheric sciences: the LaMMA activities

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Science institutions can play an important role in the overall education system, providing students and teachers with different opportunities of learning. This is even more true when science centres realize opportunities to visit laboratories or design activities based on learning by doing; acting as informal science education places they contribute to increase science awareness of local communities.

LaMMA, a public consortium set up by Italian National Research Council and Tuscany Region (Italy), is the public weather service for Tuscany. In recent years LaMMA developed several educational proposals on meteorology, climate and atmospheric science, with modules for different school levels and students' age. Educational activities are performed during a half morning visit at the LaMMA weather labs. Since 2011 each year more than 1200 students come to visit LaMMA to follow one of the proposed activities. Children are engaged with simple experiments on meteorology performed by researchers; a more participative module allows students aged 12 years or older to realize their own weather forecast on video; a more challenging proposal for students of scientific curricula makes students reflect on the concept of chaos and uncertainty in weather forecast by using a weather game. Everybody has also the opportunity to visit the operational weather room and meet the forecasters.

Furthermore, in the last two years an educational module on climate change based on a participatory approach was also proposed to teachers of all school levels and environmental educators; more than 500 teachers from all over Tuscany participated and many of them developed a follow up activity in classroom finalized to increase competences on climate science. A web-based platform was also implemented in order to submit projects and results of class activities with the aim of creating a database of didactic good practices.