

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IP)

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A CASE FOR THE SECONDARY CLASSROOM: GEOSPATIAL AND EARTH OBSERVATION
TECHNOLOGY FOR INCREASING AWARENESS OF GEOGRAPHY AND GEOLOGY DISCIPLINES

Abstract

Given the pressure on teaching for increasing the awareness of Geography and Geology disciplines for the secondary curriculum on understanding the planet Earth's fundamental purpose, utilising Geospatial and Earth Observation technology could be seen as a great tool to visualise spatial phenomena and as an interactive way to replace static maps and tables by engaging visualisation in a digital context. AVINTERRA team stepped in to add value to Geography, Geology and Computer Science lessons based on a collaboration with Space Generation Advisory Council, 4wardfutures UK and Space Science Engineering Foundation UK, developing the GEO4Schools programme. GEO4Schools, which stands for Geospatial and Earth Observation for schools, has been designed for helping teachers embrace the new and innovative geospatial technologies. Based on eight lectures of 50 minutes each, the GEO4Schools programme is bridging the gap between mathematics, geography, geology and computer science disciplines and their career progression. The programme explores digital maps and innovative developments in the sector, such as 3D globes. It is also a great way to build digital capabilities and reinforce subject knowledge in class. As part of the pilot phase developed throughout 2021, the lectures materials enabled teachers to understand the vast topics that could be explored through GIS-related services freely available, such as EO Browser based on Landsat and Copernicus data and Quantum GIS. As a result, GEO4Schools fosters the development of spatial and critical thinking, problem-solving and communication and opens up the door to exciting discussions for career progression.