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SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Lift Off - Primary and Secondary Space Education (1)

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TAKE YOUR CLASSROOM INTO SPACE - CHILDREN AND ASTRONAUT IN "GREENHOUSE IN SPACE: PROJECT.

Abstract

The European Space Agency continues to work with its International partners in sharing a common goal to improve, support and create innovative programmes designed to enhance the education of all its citizens. By using the theme of Human Spaceflight in education programmes, teachers can in turn inspire, prepare and nurture the next generation who will form the workforce of the future. Astronauts and their daily lives on the International Space Station (ISS) are a fascination as well as a dream for many young minds. By involving young children aged 12 to 14 years old in one such project: Greenhouse in Space, this paper will outline the build up and results of how such a project can bring the classroom into space and give teachers and students the opportunity to not only continue working on the curriculum set out but to enhance the educative process beyond the classroom.

To survive long duration space missions, it is anticipated that one of the solutions be that astronauts produce fresh food and become partially self reliant. There will be a need to develop special greenhouses either on board the travelling spacecrafts, on orbiting stations or on the new planets' surfaces themselves. European school children were supplied with their own mini greenhouses and invited to join the experiment with a live event kick off when the astronaut initiated the experiment on board the ISS. Over a period of 15 weeks there were regular updates from the astronaut and via the use of social media networks, which astronauts and children have easy access to, made this multi-way communication tool valuable in engaging students with each other and with the ISS for the entire duration of the experiment. The benefits of such space related educational activities which engage both young students and space experts as well the lessons learned in this process will also be identified.

This project is part of the ESA Human Spaceflight Directorate's activities intended to stimulate the curiosity of students and to motivate them towards STEM (Science, Technology, Engineering and Mathematics) subjects as well as to bring awareness to the younger generation of the importance of the ISS as a testing bed for future exploration activities in space.