

## SPACE LIFE SCIENCES SYMPOSIUM (A1)

Public Outreach and Education - Integral Elements of Space Life Sciences Program Development (8)

Author: Dr. Cristina Olivotto  
European Space Agency (ESA), The Netherlands

Ms. Shamim Hartevelt-Velani  
European Space Agency (ESA), The Netherlands

Ms. Nicole Sentse  
European Space Agency (ESA), The Netherlands

‘THE INGREDIENTS FOR LIFE - ON EARTH AND IN SPACE’ AND THE NEW EXPLORATION  
VIDEO SERIES: LIFE SCIENCE AND SPACE FOR PUPILS

**Abstract**

The new video series produced by the Human Spaceflight Directorate of the European Space Agency for educational purposes is dedicated to human space exploration and the International Space Station. The videos are addressed to European secondary school pupils and their teachers; they come with lesson notes and they are expected to be used in the classroom either in clips (sections of the video) or in one run.

The topics of the two first videos of the new serie are life-science related. After having dedicated three videos to physics, material science and robotics, it was decided to focus on life science, being this topic also strictly related to exploration and of the utmost importance in European curricula. The first video ‘The Ingredients for Life – on Earth and in Space’ has been released in September 2008 while the second one dedicated to nutrition is expected for autumn 2009.

This paper aims to present the video series, to share the lesson learned and propose some questions which we faced during the production phase. Firstly, we will present which topics have been selected in the first DVD (e.g. radiation, life support systems, psychology of confinement...) and which ones are planned for the second one, explaining the reasons of our choice. We will discuss why it is important to talk about life science in relation to space and how this can trigger the interest of students and especially female students. We will present and discuss other main features of the video which strongly affect its style and impact: choice of a presenter, duration, media of distribution, lesson notes for teachers. It will also be shown how we plan to take into account hot topics in science education in the next video: interactivity in the classroom, new media, inquiry based science learning, interdisciplinary approach, formal and informal education.

We will conclude presenting the benefits and limitations of using a video for life science and space education in the classroom, proposing some possible evolution of our next production and hopefully stimulating an open discussion.