

# Education Activities



Germana Galoforo - Head of ASI education office







Agenzia  
Spaziale  
Italiana



## QUALITY EDUCATION



**Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

**TARGET 4-1**



**FREE PRIMARY AND  
SECONDARY  
EDUCATION**

**TARGET 4-5**



**ELIMINATE ALL  
DISCRIMINATION IN  
EDUCATION**

## Gli enti di ricerca per studenti, insegnanti e famiglie

La scienza e la ricerca per la scuola da casa. Fisica e astrofisica, ambiente, natura, tecnologia, matematica, scienze umane e sociali e tanti altri argomenti sono presenti in questi contributi scientifici messi a disposizione di insegnanti, studenti e famiglie. È l'iniziativa promossa da tutti gli enti pubblici di ricerca italiani, che hanno selezionato contenuti, video e contributi interattivi per favorire lo studio e l'approfondimento da casa. La piattaforma, in continuo aggiornamento, consente di scegliere le risorse utilizzando il menù di ricerca.



www.indire.it



An Italian Research Institutions' joint educational project developed during the COVID-19 emergency to support the distance learning during the lockdown.

<http://www.indire.it/gli-enti-pubblici-di-ricerca-a-supporto-degli-studenti>



# Vision on EDUCATION - 1

- ✓ "ASI handles relations with universities, research institutes / centers and doctoral schools, in defining training courses in the aerospace sector. (...) It also has the task of looking after the education activities for space culture by defining training courses with schools of all levels, also taking care of the related dissemination activities and developing agreements and relationships with researchers from universities, institutions of public or private research". (*DVS 2020-2029, paragraph 14, Development and exploitation of space research and knowledge*).
- ✓ "ASI supports Education initiatives dedicated to young people, carried out in order to inspire the new generations, to direct their interest towards the study of scientific subjects (STEM), to contribute to the advancement of knowledge of the Agency's activities among students and teachers "(*PTA 2021-2023: 4.12.3 Communication, Dissemination and Development of Knowledge*).

## Vision on EDUCATION - 2

- ✓ support the objectives and priorities of Europe as a knowledge-based society
- ✓ respond to the educational needs emerging from the evolving space sector and the new priorities and challenges of our society
- ✓ increase youth awareness of the leadership role played by Italy in space
- ✓ inspiring and motivating the new generations to improve their scientific literacy and technical skills
- ✓ attract the best talents in the STEM professions, supporting and encouraging those who want to pursue a career in the space sector
- ✓ support the enrolment of students in technical and scientific areas
- ✓ implement the concept of the Triangle of Knowledge (education, research and innovation)
- ✓ contribute to the OECD goal for Education 2030 to improve the capacity building for the new space sector, with a view to prepare «for jobs that have not yet been created; for technologies that have not yet been invented; to solve problems that have not yet been anticipated»

# YISS: Youth ISS Science

- Call for applications for upper secondary schools and universities
- Schools can propose ideas for experiments to be carried out on board the ISS during the missions of Italian astronaut;
- The educational activities and the implementation of the experiment are funded by ASI and managed by the school with the scientific coordination of an Italian university and the technical support of a space company;
- **Main Objectives:**
  - 1) to develop STEM skills, to deepen scientific research methodology and the knowledge of research activities in space
  - 2) To trigger synergies between schools, universities and space companies (the Triangle of Knowledge: education, research and innovation).





Italy



The ESERO project uses space as a powerful and stimulating context for teaching and learning STEM curricular subjects (Science, Technology, Engineering, Mathematics). Thanks to the use of innovative teaching, ESERO aims to develop knowledge and skills in the field of science and technology with the aim of helping to attract young people to technical-scientific studies and careers, in particular in the space sector, and to educate the new generations to critical and autonomous thinking as a social value.



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**Esero Italia: insegna, impara, vola in alto con lo Spazio**



Teams of students, supported by their teacher, are called to “make” a difference by indentifying a climate problem using available satellite data or by making measurements on ground. They must therefore propose a way to help reduce the identified problem.

**Main Objectives:**

- 1) Learn about the climate change on Earth
- 2) Learn the importance of respecting our environment
- 3) Learn the usefulness of Earth Observation satellite data



# Educational activities for astronaut missions

**Proposed activities of the ASI-ESA Joint education Plan for Samantha Cristoforetti's Mission**

**(still under negotiation and not formally approved yet):**

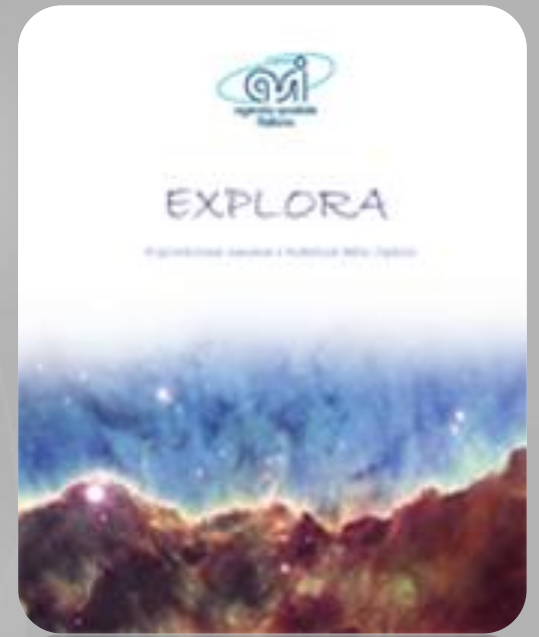
- Educational experiment in space
- Educational program about AI
- Teaching Excellence in Space
- Collaboration with Italian Onlus against educational poverty
- European Astro Pi Challenge (2021/22)
- Mission X: train like an astronaut (2023)
- Climate Detectives (2021/22)
- Moon Camp (2021/22/23)
- Earth From Space Trivia Quiz
- Paxi on the ISS: Ask an Astronaut
- Newton's Law Demonstrations
- Inflight Calls
- ARISS/HAM Radio school contacts



## LISS: Lessons on the International Space Station

## EXPLORA: Esplorazione umana dello Spazio

Educational initiatives of the Italian Space Agency aimed at creating a direct link between the world of school and that of universities and research in the space field, through the unique perspective offered by the International Space Station





ESERO ITALIA PRESENTA

# BEYOND

DALLO SPAZIO ALLA TERRA,  
DALLA TERRA ALLO SPAZIO.

IN COLLEGAMENTO DALLA ISS,

**LUCA PARMITANO**

RISPONDERÀ ALLE DOMANDE DEGLI STUDENTI.

MARTEDÌ

**15-10  
2019**

IN COLLEGAMENTO  
AGENZIA SPAZIALE EUROPEA  
ESERO SPAGNA  
ESERO GERMANIA

INTERVERRANNO

ANNALISA TERRACINA | RESPONSABILE ESERO ITALIA  
PAOLO D'ANGELO | GIORNALISTA SCIENTIFICO  
LUCA DELLI PASSERI | DIPARTIMENTO PROTEZIONE CIVILE NAZIONALE  
ANGELO ZINZI - GERMANA GALOFORO | AGENZIA SPAZIALE ITALIANA



- Educational Events
- Inflight calls
- ARISS school contacts
- Video with astronauts on board



Istituto Comprensivo Ladispoli 1

## ARISS SCHOOL CONTACT

missione



*L'astronauta Luca Parmitano  
risponderà in diretta radio  
alle domande dei ragazzi*



**SABATO 19 OTTOBRE 2019 dalle ore 12:27**

aula multimediale dell'istituto in via Castellammare di Stabia n. 8 a Ladispoli

# Future perspectives in education

- guarantee continuity over time to educational programs
- facilitate school participation
- broaden the audience of participants
- increase the role of industries in the program
- involve more and more space experts in the training of students and teachers
- ensure that even those who live in disadvantaged context can benefit from the inspirational, multidisciplinary and fascinating ecosystem of space
- reinforce and create new collaboration schemes among schools, industry, academia (Triangle of Knowledge)



**Strengthen ASI positioning at the forefront of innovation and quality in Education**



*Thank you for your attention*

[www.asi.it](http://www.asi.it)

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[www.esero.it](http://www.esero.it)



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**ASI**  
**Agenzia Spaziale Italiana**  
Via del Politecnico snc  
00133 Roma, Italia

[germana.galoforo@asi.it](mailto:germana.galoforo@asi.it)