Pancyprian School Contest CARES: "Sky: A Neverending Exploration"

in Collaboration with the European Space Agency (ESA)

Directors of Public and Private Secondary General, Technical, and Vocational Education Schools,

Announcing the organization of the Pan-Cypriot Competition 'Sky: A Neverending Exploration,' held in collaboration with the European Space Agency (ESA) and supported by the CARES Program. The competition aims to inspire students in Cyprus to explore space in their own unique ways. The projects of the 15 winners, across 5 different categories, will be showcased at a special event, where the awards will be presented

Regarding the CARES Program::

The competition is being implemented through the CARES consortium (CY_AD_02 CYPRUS AWARENESS RAISING AND EDUCATION STUDY), led by '1010 COSMOS' as the Main Contractor, with the support of 'INTERSTELLAR INSTITUTE' and 'ADELVE Research, Innovation, Consulting & Trade.' The framework is supported by the 'Department of Electronic Communications' of the Deputy Ministry of Research, Innovation, and Digital Policy, bringing together a team of leading Cypriot experts, internationally recognized astrophysicists, and the support of the country's significant astronomical infrastructures with modern technologies, such as the Troodos Observatory, the Cyprus Planetarium, the Amiantos and Arodes Astroparks, as well as the Scientific Park of the Idalion High School.

Purpose of the Competition:

The competition aims to guide students in satisfying their curiosity, creativity, and innovation, encouraging them to make use of openly available tools, such as the internet, and to recognize the accessibility of knowledge. Through modern technologies and astronomical data, it promotes the understanding of science as an immediately accessible and exciting field of exploration for everyone.

Through their free individual participation, students will have the opportunity to cultivate their scientific thinking and imagination.

<u>Competition Start Date:</u> February 3, 2025 <u>Competition End Date:</u> April 30, 2025 Award Ceremonies: May 10, 2025

<u>Inspiration Material:</u> https://www.cosmos.cy/esa#sky

Competition Passport (to accompany each submitted project):

https://www.cosmos.cy/esa#sky

Competition Categories and Guidelines by Educational Level

Students can participate for free in one or more categories, depending on their educational level. Below are the categories and the evaluation methods for the respective educational level.

The following link contains suggested interactive tools and software that can be used as a starting point and source of inspiration for all students, ensuring the objectivity and impartiality of the process: https://www.cosmos.cy/esa

B. Middle - Secondary School

B1. Research - Light Pollution from My Home

 Description: A three-month study on light pollution in the student's local area, using the Bortle Scale methodology and proposing improvements to mitigate the phenomenon.

Evaluation Criteria:

Criterion	Percentage	Explanation
Technical	45%	 Data Collection Duration: The full three-month period must be followed to gather sufficient data and identify potential variations in light pollution. Data Presentation: The results should be presented in an organized format using tables or graphs to enhance clarity. Photographs: Photos should be taken according to the set specifications (e.g., same location, same equipment) to ensure comparability and reliability of the data.
Research Accuracy and Analysis	20%	 - Measurement Accuracy: Observations should follow the Bortle Scale consistently. - Scientific Analysis: Data must be clearly analyzed, identifying patterns or causes related to local light pollution.
Data Development and Presentation	20%	 Organization: The data should be presented in a structured and readable format (e.g., charts, graphs). Transparency: All research steps should be clearly documented to allow verification of the methodology.

Originality in Improvement Proposals	15%	 Innovation: Solutions for reducing light pollution should be practical, original, and tailored to the local environment. Feasibility: Proposals should consider local conditions and implementation possibilities. Repeating existing information without new insights will not be considered.
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Submission Method: Photos in .png or .jpeg format and completed tables in .pdf format should be sent via e-mail to: connect@cosmos.cy

B2. Poster (A1)

- Description: A scientific poster concept with an artistic approach, featuring an open-ended theme related to the competition's subject.
- o Evaluation Criteria:

Criterion	Percentage	Explanation
Technical	20%	Dimensions : A1 paper, Images : printed or hand-drawn.
Visual Aesthetics	20%	
Creativity in Data Presentation	30%	Structure and organization of content to facilitate the understanding of scientific concepts. Innovation in materials and tools used for presenting scientific information.
Communication Message	30%	RES

Submission Method: By mail to: 64B Tassos Mitsopoulos, 6028, Larnaca, Cyprus.

B3. Drawing

- Description: A drawing inspired by real images or events (e.g., a specific satellite, exoplanet, landing scene, etc.), creatively expanded based on each student's imagination.
- o Evaluation Criteria:

Criterion	Percentage	Explanation
Technical	20%	Dimensions : A1 board, Materials : all allowed.
Quality and Accuracy of Drawing	30%	 Correct proportions: The dimensions and proportions of the drawing elements should closely reflect reality. Scientific accuracy: If the drawing includes references to real objects or phenomena, they should be depicted based on scientific evidence (e.g., the number of Saturn's rings, the structure of a space rover).
Creativity and Imagination	20%	44
Artistic Skills	30%	USA 7

Submission Method: By mail to: 64B Tassos Mitsopoulos, 6028, Larnaca, Cyprus.

B4. Interactive Construction – Simulation

- Description: Creation of original 3D simulations based on the study of astronomical/space-related themes (e.g., the solar system, constellations from an exoplanet, exploration vehicles, etc.).
 - Evaluation Criteria:

Criterion	Percentage	Explanation
Technical	20%	Materials : all, with an eco-friendly approach. Dimensions : Maximum 1m x 1m x 1m.
Functionality and Accuracy of the Simulation	20%	The details of the simulation should be based on scientific data, ensuring a realistic and technically accurate representation.
Innovation, Creativity, and Interactivity	30%	Focus on interactivity , enabling active participation or user interaction , enhancing exploration and understanding of the topic.
Artistic Excellence	30%	

Submission method: via email in .png or .jpeg format at <u>connect@cosmos.cy</u>

B5. Short Educational Video

- Description: Creation of a video with an open theme based on the competition's subject.
- o Evaluation Criteria:

Criterion	Percentage	Explanation
Technical	20%	Resolution : 1920x1080px, Duration : 3.0 – 3.5 minutes.
Clarity and Quality of Content	35%	Includes content organization, use of clear language or presentation , and consistent development of the idea or theme without unnecessary ambiguities or omissions.
Creativity and Originality	35%	The ability to present new and imaginative ideas , going beyond conventional approaches. Originality refers to the authenticity of the content or perspective , while creativity is reflected in the innovative way the theme is developed or presented.
Technical Quality and Editing	10%	High-quality visuals and sound, including stable shots, adequate lighting, and clear narration or dialogue. The video should have a structured flow with proper use of basic editing tools (e.g., cuts, simple transitions, subtitles, or music).

Submission Method: In .mp4 format via email to: connect@cosmos.cy

We look forward to receiving **scientifically inspired and creative submissions** for this initiative, aiming to promote the **dissemination of space science** and highlight the **value of our planet's resources** through **interactive learning**!

For further information or clarifications, feel free to contact us:

Email: connect@cosmos.cy

Website: <u>www.cosmos.cy/esa</u>

Best regards,

The Competition Organizing Committee



CY_AD_02 CYPRUS AWARENESS AND EDUCATION STUDY (CARES)









