

MW-GAIA: BRINGING THE MILKY WAY TO SCHOOLS 2021

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TOPICS COVERED

- The Milky Way as a Galaxy: the science and research background
- Dissemination of the GAIA science
- Bringing the research closer to the public
- Teaching the Milky Way in schools
- How to make teaching and science communication more inclusive

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Poster 2



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ORGANIZERS



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Inclusive Astronomy

The inclusive astronomy project that takes place at the El Minuto de Dios Ciudad Verde school (Colombia), implements new technologies (STEAM), methodologies and workshops for students from vulnerable populations or with some type of special need (differentiated education), girls and boys in equality gender, using aspects of divergent and sensitive education to introduce the world of science and technology to these classes in times of virtuality through the study of astronomy and space science.

<https://lco.global/education/partners/inclusive-astronomy>

<https://astrobvi.org>

INCLUSIVE ASTRONOMY: A BRIDGE BETWEEN SCIENCE AND SOCIETY

Online Workshop MW-Gaia: Bringing the Milky Way to schools 2021

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Research hotbed in inclusive astronomy and aerospace sciences

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"We must try to understand the beginning of the universe from scientific bases. It may be a task beyond our capabilities, but we should at least try" Stephen Hawking (1942-2018).



The Minuto de Dios Ciudad Verde School has highlighted It has focused and promoted its work towards the most needy, excluded, and above all that population of school age that has limited options for continuing their studies in higher education with quality, whether at a technical, technological and university level. From this premise, from the area of Sciences has been implementing the inclusive astronomy project, astronomy with all the senses and astronomy for all, in order to bring science and technology closer to the population with a certain degree of vulnerability, learning difficulties, special conditions and of gender equality so that girl scientists can be trained in these fields stimulating from astronomy and space sciences. The ASTROBVI project was born in 2017 as a collaborative work between various entities and countries to promote access to different topics of astronomy and space sciences through activities, workshops, events and an educational kit to carry out activities. do practices with the entire student population.



Figure 1. Allied entities Inclusive astronomy Project (www.astrobvi.org).

Sensitive education through inclusive astronomy It allows offering pedagogical and methodological tools, giving students of the educational institution the opportunity to participate with all the senses, not only the intellect as the primary basis for acquiring knowledge or learning, but also touch, hearing, taste and in some cases the same vision approaching, concepts, sensations, impressions and impact of astronomical sciences to be accessible to the vulnerable population but eager for knowledge. Within the Sustainable Development Goals or Objectives (ODS) that has been proposed by the Office of Astronomy for Development (OAD) attached to the International Astronomical Union (IAU), and whose framework is taken from the United Nations (UN). learning astronomy through the inclusion and organization of curricular plans in schools or colleges for the teaching and appropriation of this science; annually it makes a call to finance collaborative projects between countries dedicated to these purposes of dissemination, appropriation, apprehension, teaching, research, inclusion, participation and gender equality to encourage girls and women to study astronomy

(Figure 2). Inter, multi and transdisciplinarity is a fundamental aspect to take into account to approach astronomy and space sciences from many complementary perspectives that allow working pedagogical approaches aimed at the design, production and implementation of inclusive education under research projects.



Figure 2. Sustainable development goals and Connection of astronomy with other areas of knowledge

In our educational institution the Minute of God day was developed with the motto door to the universe and inclusive astronomy with all the senses, where in workshops, exhibitions, music, sounds, colors, interactive exhibits, presentation of portable dome and projections The samples of both elementary and high school students were carried out in front of parents and the educational community in general, this activity was given as a framework of the ASTROBVI and Astronomy project with all the senses Within the conclusions and impact that has been established. When implementing this type of project in our educational institution has been the social appropriation of scientific knowledge from astronomy, the approach towards the advancement and progress of science and technology throughout history in the aerospace sciences, the adaptation and insertion of methodologies in science class (Biology, Chemistry, Physics) that bring closer to the applicability and reality that astronomy shows us in the interaction or complement with many areas of knowledge starting from mathematics, engineering, robotics, English, social, anthropology, philosophy, humanities to medicine, neurosciences, environmental education and information sciences; Opening spaces for participation to female students has allowed women to broaden or cover scientific knowledge, promoting the taste for science and founding the breeding ground to create a critical mass of women scientists and humanist men of science under the sense the care of our common home, international participation in the asteroid search program, acceptance as a participating group or seedbed of the Colombian Astronomy Network (RAC) academic, dissemination and pedagogical committee, as well as participation in the Einstein Schools program of the International Astronomical Union in its one hundred years of foundation (<https://minciencias.gov.co/cultura-en-cte/ondas>).



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