

## מקורות אקדמיים בתחום כינוך לחלל

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### [The paper: A place for Space / Roche. et al. 2021](#)

The COVID-19 global pandemic has transformed the relationship between science and society. The ensuing public health crisis has placed aspects of this relationship in harsh relief; perceptions of scientific credibility, risk, uncertainty, and democracy are all publicly debated in ways unforeseen before the pandemic. This unprecedented situation presents opportunities to reassess how certain disciplines contribute to the public understanding of science. Space education has long provided a lens through which people can consider the intersection of the natural world with society. Space science is critical to understanding how human activity and pollution affect global warming, which in turn, inextricably links it to perceptions of the natural world, environmental change, science communication, and public engagement. The pandemic has caused a dramatic shift in how space education projects connect with public audiences, with participation pivoting to online engagement. This transition, coupled with the renewed societal examination of trust in science, means that it is an ideal time for the field of space education to reflect on its development. Whether it evolves into its own distinct field, or remains an area that straddles disciplinary boundaries, such as science education, communication, and public engagement, are crucial considerations when scientific trust, accountability, and responsibility are in question. This paper describes the current state of space education, recent advances in the field, and relevant COVID-19 challenges. The experience of an international space education project in adapting to online engagement is recounted, and provides a perspective on potential future directions for the field.

### [The paper: The Gateway Science: a Review of Astronomy in the OECD School Curricula](#)

Astronomy is considered by many to be a gateway science owing to its ability to inspire curiosity in everyone irrespective of age, culture, or general inclination towards science. Currently, where there is a global push to get more students engaged in Science, Technology, Engineering, and Mathematics, astronomy provides an invaluable conduit to achieve this shift. This paper highlights the results of a study which has reviewed the presence and extent to which astronomy has been incorporated into the school curriculum of the Organisation for Economic and Cooperative Development (OECD) member countries. In addition, two others strong in astronomy research, China and South Africa, are included together with the International Baccalaureate Diploma science curriculum. A total of 52 curricula from 37 countries were reviewed. The results reveal that astronomy and its related topics are prevalent in at least one grade in all curricula. Of the 52 curricula, 44 of them had astronomy-related topics in grade 6, 40 introduced astronomy-related topics in grade 1, whilst 14 had astronomy-related topics explicitly mentioned in all grades. At all year levels, celestial motion is the dominant content area; however, topics such as stars, physics, cosmology, and planetary science become much more frequent as a proportion towards the higher year levels. The most common keywords employed in the curricula related to basic astronomy concepts were the Earth, Sun, Moon, and stars, all with a high frequency of use. There is hardly any focus on Indigenous Astronomy or the role of prominent women astronomers. Relational textual analysis using Leximancer revealed that all the major concepts could be encompassed within two broad themes: Earth and Physics. Astronomy and Physics are often seen as different domains, with astronomy content being more facts based, than based on concepts.