

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Calling Planet Earth - Space Outreach to the General Public (6)

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THE IMPORTANCE OF OFFERING SPACE EDUCATION IN AN INFORMAL MUSEUM
ENVIRONMENT

Abstract

All of us are exposed to the starry heavens, but few of us knows the true facts. MadaTech aims to instill more accurate scientific knowledge about Space in Israel's young students, thereby also acquainting them with a critical approach and systematic thinking methodologies. MadaTech utilizes the stimulating subject to attract young Israelis to the world of science, with this unthreatening doorway, through which even the most physics-wary may enter, realizing that science can be friendly. Equipped with this understanding, many students choose to expand their scientific studies in high school, and some may even go on to higher education and careers in science and technology. MadaTech offers a wealth of informal education programs on Astronomy that are unique in Israel - in their content, scope, educational concepts and target populations. MadaTech's Space Education Programs are based on advanced principles of experiential learning, delivering scientific knowledge through hands-on investigation and personal observation. Here, in modernly equipped educational laboratories and classrooms, students enjoy a broad offering of teaching tools that cannot be found in Israel's formal schools. The activities include: Digital Planetarium friendly demonstration exhibits, spectrometers and other lab instruments, multimedia interactions, a range of age-appropriate scientific experiments conducted by the students themselves, rocket-driven vehicles built by the students, computations such as solar radiation on different planets, how to launch a rocket, gravity and more. Programs are offered in several formats: single-session workshops, multi-session courses, full-day experiences at MadaTech, and off-campus activities delivered to schools across the country by the Museum's Mobile Labs. MadaTech's highly diverse Space Education Programs target many different populations, aiming to bring advanced and comprehensive knowledge to all parts of the Israeli public. Specially targeted programs are produced for young learners of all ages, from elementary school through the 12th grade, as well as all sectors of Israeli society. Speakers of Hebrew and Arabic, students from orthodox and secular schools, children with special needs, gifted youngsters with high abilities and many other groups – all find here Space Education Programs that suit their culture and language, and accord with their interests and capabilities. Another major audience are Israel's educators, who benefit greatly from MadaTech's special Space Education Programs for teachers, where they can explore subjects offered nowhere else in the country. For the general public, MadaTech organizes a free annual Space Day, featuring numerous riveting activities, and attracting thousands visitors every year.