

ABSTRACT ONLY

A JOURNEY TO THE MOON: EXPLORING
MULTISENSORY RESOURCES IN THE
TEACHING AND LEARNING OF ASTRONOMY

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Astronomy can be a gateway to STEAM engagement, but achieving this in educational environments requires equal access to information. As science teaching usually relies on visual resources, blind and visually impaired (BVI) individuals may face barriers to accessing adapted materials to their needs. The Universo Acessível project, based at the Valongo Observatory (UFRJ) in partnership with the Instituto Benjamin Constant, develops didactic resources to improve Astronomy learning for BVI students. The Brazilian Basic Education curriculum related to Universe encourages reflection on the role of the human species in the cosmos, beyond purely understanding concepts. This work presents the multisensory resources developed by the working group addressing a key component in the curriculum, the Moon: tactile model, booklet, and a talking book. The initiative responds to challenges identified through research on Brazilian teachers’ relates and their difficulties in understanding and teaching astronomical concepts. Each resource has its specificity, engaging students through minds-on, hands-on, and hearts-on experiences. The integration of multisensory resources fosters autonomy and inclusion. This approach has the potential to contextualize content and encourages critical thinking, aiming to achieve a meaningful learning. We seek to promote interdisciplinary exploration and the sharing of personal perceptions. Extending beyond people with disabilities, these resources reach a diverse audience, ensuring usability and specificity for each one. Active user participation is crucial to understand needs, overcome barriers, and find new ways to make Astronomy accessible—improving existing materials and creating new ones. These actions help make the Universe, everyone’s home, truly accessible.

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