

Tactile Astronomy – a Portuguese case study

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Abstract

Although astronomy plays an important role in the most various outreach initiatives, as well as school science curricula, due to its strong visual component in knowledge acquisition, astronomy subjects are not entirely well addressed and accessed by visually impaired students and/or general public. This stresses the need of more tactile material production, still very scarce in an educational context whether formal or informal.

This is a case study activity developed based on different schematic tactile images of several objects present in our solar system. These images in relief, highlight, through touch, several relevant features present in the different astronomical objects studied. The scientific knowledge is apprehended through the use of a tactile key, complemented with additional information. Through proper hands-on activities implementation and careful analysis of the outcome, the adapted images associated with an explanatory key prove to be a valuable resource in tactile astronomy domain.

Here we describe the process of implementing such initiative near visually impaired students. The struggles and challenges perceived by all involved and the enrichment experience of engaging astronomy with visually impaired audiences, broadening horizons in an overall experience accessible to all.