

Flowchart explaining planetary geologic processes for children: a planetary outreach project

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1. Introduction

We have produced flowcharts to illustrate planetary geologic processes, landforms and landing site selection/evaluation procedures for children. This is a continuation and side project of our previous work of planetary maps for children [1].

2. Aims

Our aim to provide a game-like tool that follows the scientific approach of landform identification and landing site selection. In this abstract we show a preliminary version of the flowchart (Figs 1-3). The chart was made using www.draw.io flowchart making software but graphic design will be applied and line drawings will illustrate the actual landforms (the final boxes) in the version presented at the conference.

3. Methods

There may be several different approaches on how to present a pathway to identify a planetary feature. It may be started with shape or topography (positive-negative) or group parameter (single, double etc.). Similarly, landing site selection can be started with different parameters. Online interactive versions, chatbot-based versions and printable versions can be made using different user interfaces, and they can also be illustrated with actual spacecraft images.

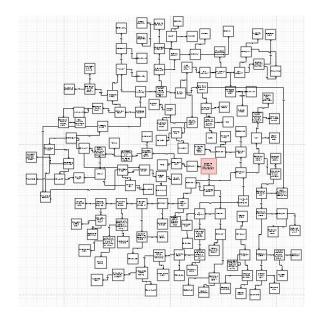


Fig. 1. Landform identification flowchart full structure, from flowchart making software screenshot.

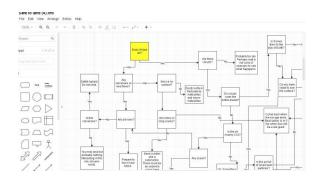


Fig. 2. "Safe to land?" flowchart showing landing site evaluation criteria. Screenshot.

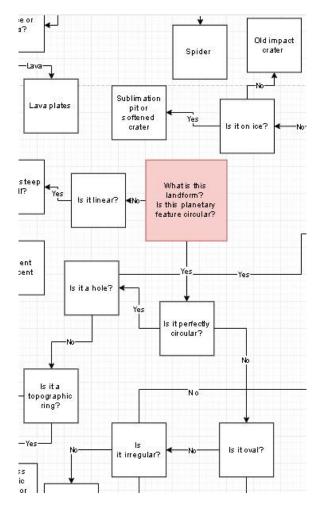


Fig. 3. Detail view from the landform identification flowchart. Screenshot from flowchart making software.

References

[1] Hargitai H., Gede M., Zimbelman J., Kőszeghy C., Sirály D., Marinangeli L., Barata T., López I., Szakács A., Dębniak K., Feuillet T. 2015. Planetary map series for children. 46th Lunar and Planetary Science Conference #2257