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| Phase 3: Landing Site Challenge | |
| Step 1 | Students first learned about several basic landforms on earth (craters, mesas, river deltas, etc.) and then learned to compare them to analogous images on Mars. This helped ground the students’ perceptions of what the landform would be like on Mars as compared to Earth (rocky vs. flat) so that they could evaluate the safety and past habitability of these regions on Mars. |
| Step 2 | Students developed their own lists of criteria for what would make for a good vs. bad landing site. Then they shared their solutions with their group and the class. The purpose was to draw out students’ initial ideas for criteria for a good landing site so that they could revise those ideas later. See supplementary material “Let’s Pick a Landing Site on Mars.” |
| Step 3 | Students learned about NASA’s three major criteria for a landing site. They ranked ordered these in importance, discussed their rank ordering of the new criteria and compared these to their own criteria. |
| Step 4 | Students used the NASA criteria to evaluate each of the three landing sites proposed by NASA and then justified their evaluations. |
| Step 5 | Students shared their landing site rankings and justifications and had a discussion about which landing sites were the best in light of each terrain’s physical constraints and NASA’s criteria. |