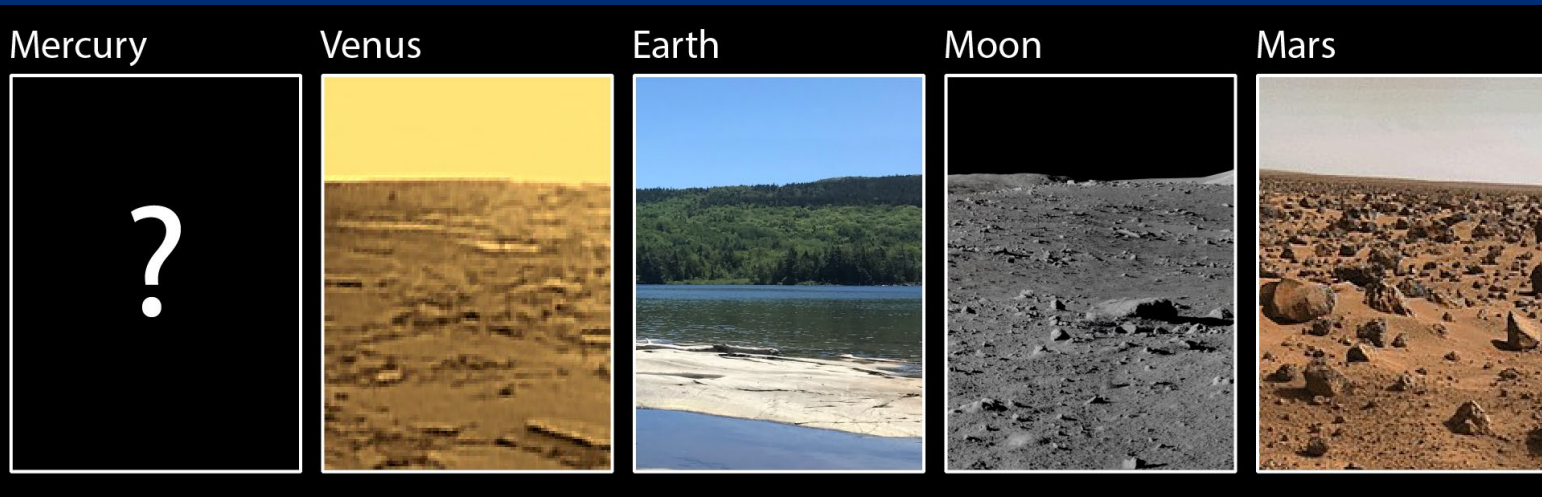


Why Land on Mercury?

- Mercury's highly chemically reduced and unexpectedly volatile-rich composition is unique among the terrestrial planets and was not predicted by earlier hypotheses for the planet's origin.
- As an end-member of terrestrial planet formation, Mercury holds unique clues about the original distribution of elements in the earliest stages of the Solar System
 - An example of how planets (and exoplanets) form and evolve in close proximity to their host stars
- Several fundamental science questions raised by MESSENGER's pioneering exploration of Mercury cannot be answered by remote means and can only be addressed by landed measurements.
- APL is leading a NASA-funded Planetary Mission Concept Study to explore a landed mission to Mercury. This study will to inform the upcoming Planetary Decadal Survey.



Mercury is the only major terrestrial body for which in situ surface data are lacking, yet the planet holds unique value in understanding how rocky worlds form and evolve.