

Family Learning Session 2 – Mercury

Solar System and Beyond STEM course.



Our STEM course this week involved Science experiments to make mercury's surface. We noticed how different angles, speeds, and meteorite sizes made different craters on Mercury first by looking at photos taken by NASA.

We then turned ourselves into scientists and made **holes in our flour to create impact craters** made from meteorites hitting Mercury's surface.

We used straws to indent ridges and troughs most likely formed from ancient lava flows.

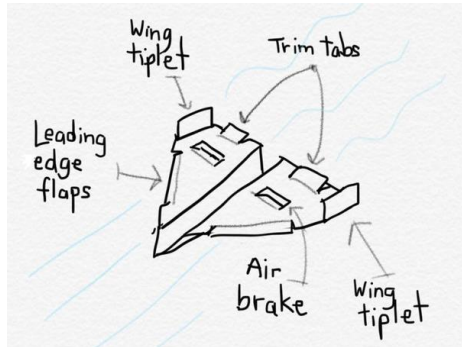
We added some water droplets into the flour to form ice at the poles which are permanently frozen water "caps" on Mercury.

We used some water droplets around the edge of the flour to make scarps

"seams" that formed as the planet cooled. When the inner parts of the planet cooled, they shrank. The hard crust then needed to shrink to, but as it did so, it left behind "scarps."



We have sent a couple "fly-by" missions to Mercury to study its surface, so our children joined the session, and we engineered our own paper glider to land on mercury's surface.



No human has ever landed on mercury yet, but the first spacecraft to visit Mercury was NASA's Mariner 10, which photographed about 45% of the surface.

NASA's MESSENGER spacecraft flew by Mercury three times and orbited the planet for four years before crashing on its surface at the end of its mission.

