**Items in this kit**

30g Mars Regolith(Soil) Simulant

50 - plastic probes

2 - 96 Well Plates

10g LB Agar

20 petri plates

100 inoculating loops

100 1mL Pipettes

100 - 1.5mL plastic microtubes

4 - 50mL Tris buffer

6 - 15mL LB tubes with 5mL LB

**Extra**

16s rDNA PCR primers for Bacterial identification

200uL 5x Taq Master Mix(20 reactions)

The goal of these experiments are to find bacteria on earth that can harden Lunar and Martian like regolith(soils) naturally or with the help of urea.

1. Collect your samples. Go out and about and collect samples in the 1.5mL plastic microtube. Soil, water, plants and many other things have bacteria growing on them that could have properties to harden Martian regolith.
2. Using a pipette fill each 1.5mL tube with 1mL of Tris Buffer. Close each tube and shake to disperse bacteria.
3. Make LB Agar plates by adding 10g of LB powder into 0.5L of water(5g in 0.25L) and heating in the microwave or on the stove top until boiling and clear. Let the solution cool down for 15 minutes and then pour plates by filling just the bottom(smaller plastic circle) of each plate with the liquid. Let stand for 1 hour or until agar completely hardens.
4. Put 100uL(microliters, should be the 100 line on the pipette) on a plate and spread it across the plate using a plate spreading tool.