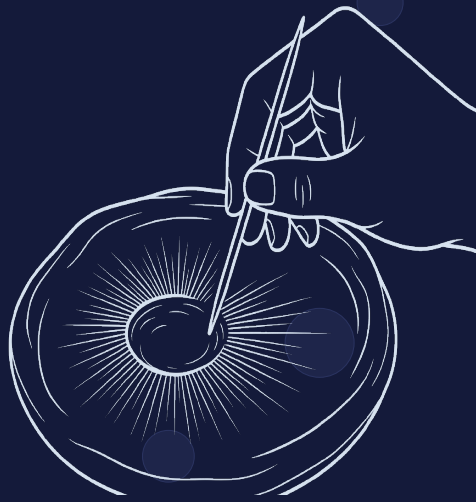


MOON SURFACE MISSION



Moon Surface Prototype

Build a real lunar landscape from household materials.

MATERIALS: • Baking soda • PVA glue • Round lid • Bottle caps • Toothpick • Spatula

1 The Lunar Mix



INSTRUCTIONS

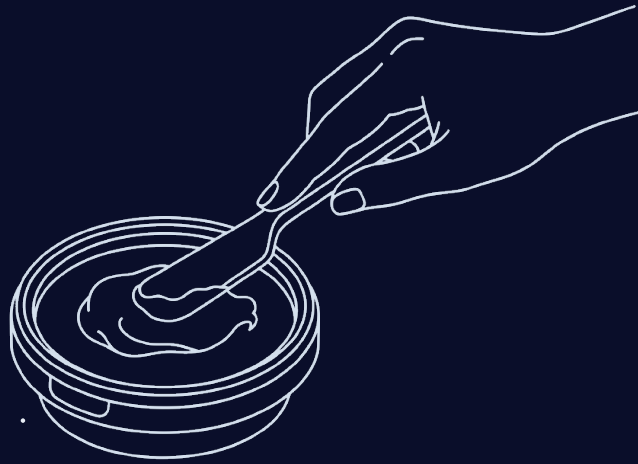
Combine baking soda with PVA glue in a bowl. Stir until you get a thick, spreadable paste like cookie dough — this is your moon surface.

SCIENCE FACT

Baking soda's grey, powdery texture mimics lunar regolith.



2 Prepare the Base



INSTRUCTIONS

Spread a generous layer of your mixture onto the round lid. Make it thick enough for texturing and crater creation.

SCIENCE FACT

The Moon's surface is covered in regolith — very fine dust.



3 Lunar Texturing



INSTRUCTIONS

Use a spatula to create irregular ridges and valleys — mimicking the rugged terrain found across the real lunar surface.

SCIENCE FACT

Lunar mountains can reach over 5,000 m in height.



4 Crater Impact



INSTRUCTIONS

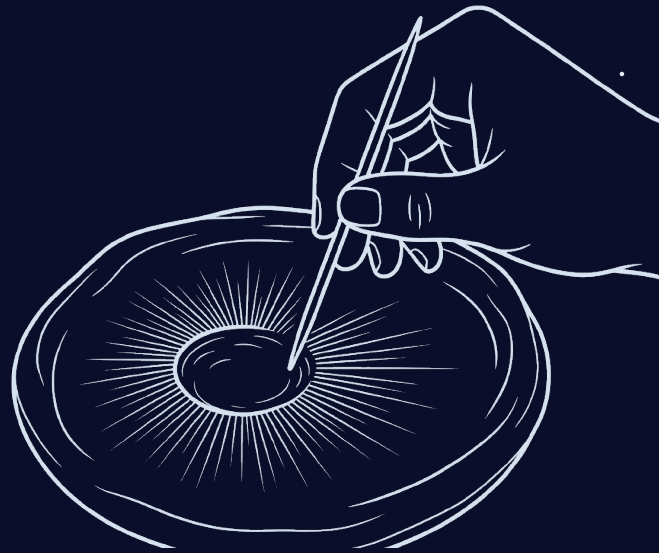
Press bottle caps of different sizes firmly into the mixture, then lift away. You just made realistic impact craters!

SCIENCE FACT

The Moon has over 300,000 craters wider than 1 km.



5 Ejecta Rays



INSTRUCTIONS

With a toothpick, draw radiating lines from each crater centre. These are "ejecta rays" — material thrown out during meteorite impact.

SCIENCE FACT

Tycho crater's rays stretch over 1,500 km across the Moon.



Mission Complete!

Now think like a scientist

Q1

Why do craters have different sizes?

Hint: think about the size and speed of the meteorite.

Q2

Why does the Moon have so many craters but Earth does not?

Hint: think about atmosphere and erosion on Earth.

Q3

What do ejecta rays tell us about the direction of impact?

Hint: look at the shape and spread of the rays.

Next mission coming soon...

The International Space Station — what do astronauts really do up there?