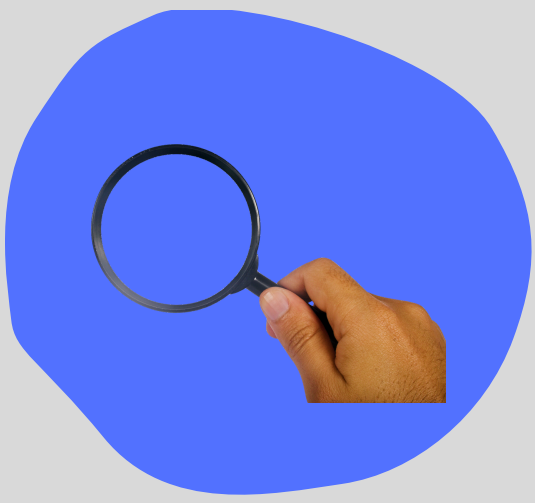
Lunar Regolith

What is Regolith?

Regolith is the layer of material found covering the surface of the Earth's moon, It is also found on asteroids, planets, and other moons. Regolith on the moon forms a blanket of small dust particles and broken rocks that covers rocks below.

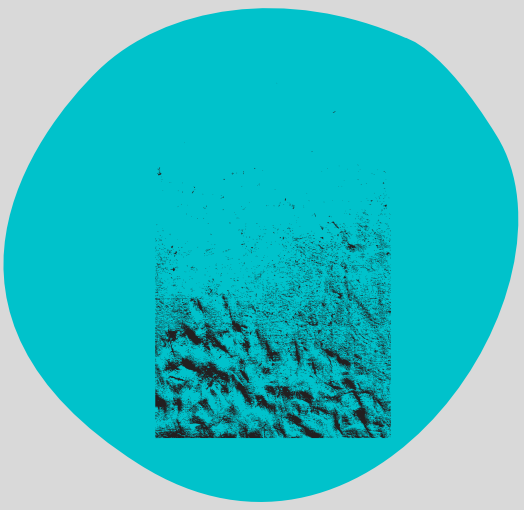


How We Study Regolith

Observing regolith in different environments helps scientists to better understand its properties. Regolith data can be collected in different gravity environments - such as microgravity or lunar gravity - and in different atmospheric conditions - such as a vacuum or earth's - to enable interactions and motion similar to what we may find on the surface of the moon.

Regolith Simulants

After lunar exploration during the Apollo missions, the composition and properties like size and shape of regolith were studied in depth. This has allowed researchers, like those at NASA and Exolith Labs, to create lunar regolith simulants that are the same composition as actual lunar regolith and behave like actual lunar regolith.



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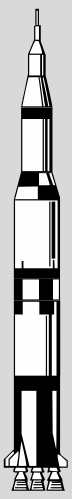
The Stephen W. Hawking Center for Microgravity Research and Education is actively studying the properties of regolith to help with the advancement of tools and technologies for upcoming lunar missions.

Did You Know?

Astronauts who went to the moon during the Apollo missions returned 842 pounds of lunar rock and regolith to Earth. Some samples still remain unopened for future testing. On our moon, two different types of regolith were found, Mare (darker, from the lunar lowlands), and Highland (lighter, found at higher altitudes).



INFORMATION SOURCES

NASA

EXOLITH LABS