

Beans on the Moon EXPERIMENT

Off Planet Research

Astronauts living on the moon will
need to grow their own food.

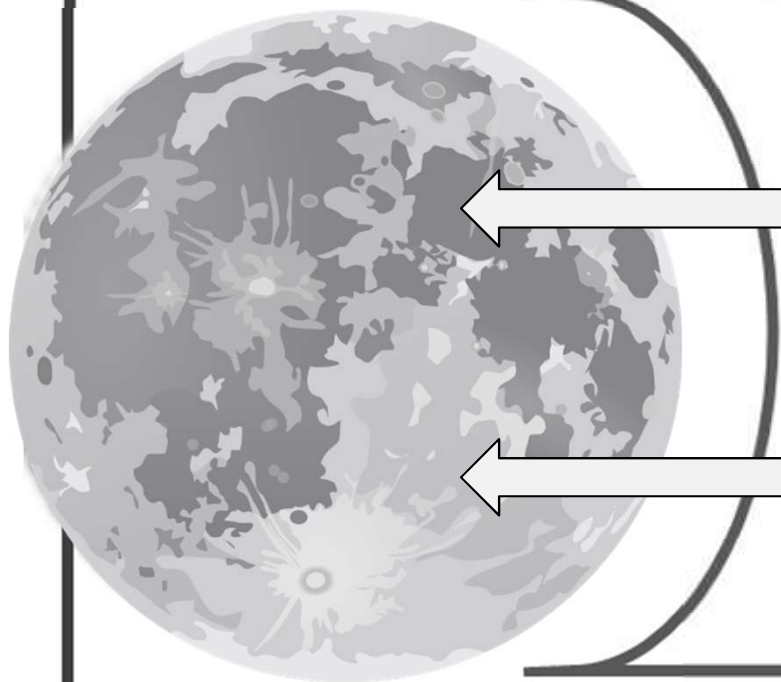
Can Food grow in Lunar Soil
(regolith)?



No matter what continent you visit, Earth dirt has nitrogen and insects that help plants grow.

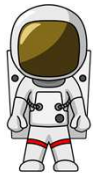


Lunar regolith has some minerals but no insects or available nitrogen. Regolith is different depending on where on the moon you find it.



The dark patches of the Moon are called "Mare" and consist mainly of basalt.

The light patches of the Moon are called "Highland" and consist mainly of anorthosite.



Scientific method



Question:

How well do beans grow in simulated lunar regolith?

Hypothesis:

Materials:

Experiment:

Results:

Earth Soil

Simulated
Mare Regolith

Simulated
Highland Regolith

Conclusions:





Beans on the Moon Data Sheet 1



Week	Earth Soil	Mare	Highland
1	cm	cm	cm
2	cm	cm	cm
3	cm	cm	cm
4	cm	cm	cm
5	cm	cm	cm
6	cm	cm	cm
7	cm	cm	cm
8	cm	cm	cm
9	cm	cm	cm
10	cm	cm	cm



Beans on the Moon Data Sheet 2



Quality	Earth Soil	Mare	Highland
Number			
Weight			
Length			
Color			
Texture			
Smell			
Taste			



Science Rules and Safety Contract



The most important part of every science investigation is to practice safety.

Taking care of lab materials and equipment and making sure all students have a safe learning experience is everyone's responsibility!

- I will listen carefully and follow all teacher directions.
- I will use all science lab tools and materials correctly.
- I will report all accidents, emergencies, or spills to my teacher.
- I will wash my hands before and after science lab activities.
- I will do my part during the lab experiment and when cleaning up.
- I will act responsibly in the science lab at all times.
- I will wear protective equipment as directed to protect my eyes, face, hands, and body while conducting experiments.
- I will help others follow safety rules.

- I won't touch, taste, eat, drink, or smell lab materials without permission.
- I won't clean up accidents or spills without informing my teacher.
- I won't rush ahead by skipping experiment steps.

I have reviewed these safety rules with my teacher and my parent/guardian. I agree to follow these rules and any additional instructions, written or verbal, given by the school and/or teacher.

Student Name (Print) _____

Student Signature Date

Parent/Guardian Name (Print) _____

Parent Signature Date

Teacher Signature Date