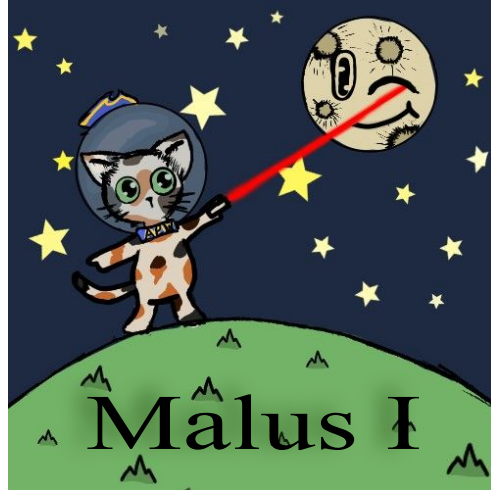


A_{pples} P_{eaches} W_{atermelons}

Team Number: 31



Devin Eberly, Zym Goodberry, Collin Hallock, and Nico Wejko (Formally Also Had William Francisco and Leo Rolon) and (APW Jr/Sr HS)

MO-5: Gardening on the Moon

Checkpoint Guidelines

- For Checkpoint #2 (Injection Burn)
 - This could be one of the three additional MOs that you submit
- Check [Submission Guidelines!](#)

Final Submission Guidelines

- Complete the next slide
- Add more slides after that with design drawings, scale calculations, photographs, videos, data tables, and additional descriptions of your work.
- Visit the [Challenge manual](#) for more details on deliverables for this Mission Objective

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24 (technically still going)	Nico	

Independent variable: Soil type
 seen dependent: growth
 controlled: water, light soil amount.
 jazz/folk/soul Song bird by
 pot type + location Kenny G M W F
 1/2 hour

3 types

beans sunflowers dandelions basil

Independent variable: Soil type
 Earth
 Earth + Fertilizer/garden soil
 Moon

Dependent Variable: Growth
 Which grows the best

Controlled Variables:
 Water type + amount
 pot type
 location
 Sun light
 Soil amount
 M W F 1/2 hour of Song Bird Kenny G

The original design had 4 plants and three types of soils. The idea was to try to see which plant would work best in which soil. We picked plants that have the most purposes, like nutritional. There were a couple of flaws and unfortunate events that happened and we had to start over. With the amount of plants it wouldn't fit in a growth chamber which was also unfortunately in use. A mouse had gotten to the seed and we weren't able to water consistently so they never grew. Once the growth chamber was available we had restarted, with only two types of plants and three soils. We have worked out a more consistent watering schedule and there has been more growth. All plants total are given 200 ml water daily and and growth is measured Monday-Friday, unless I am unable to do so because of absence ect.

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	

Photos
Taken
5/20/24



Sunflower sprout dying after a couple days of growth, in the moon soil.

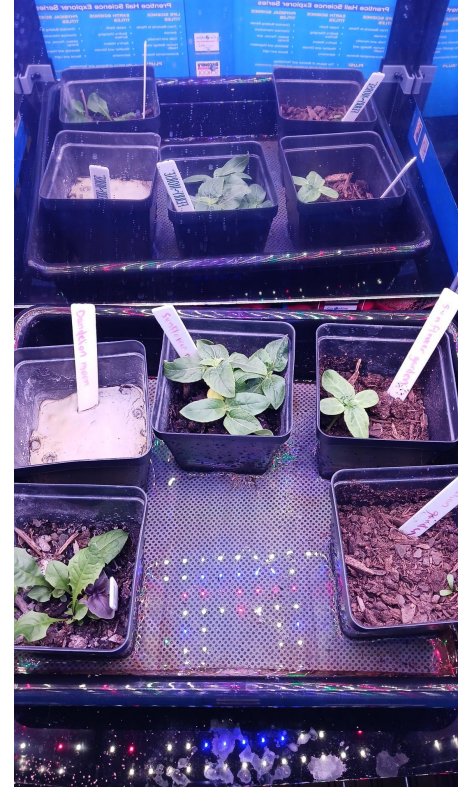


Photo of all plants when the moon sunflower died

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	

Photos
Taken
5/30/24



Both photos show when there was growth spotted in all pots except the moon soil (concrete)

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	

Photos
Taken
6/3/24



Both photos show their growth for our last day of collecting data.

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	Nico

Date	Sunflower			Dandelion		
	Moon	Mixed	Garden	Moon	Mixed	Garden
5/6/24	2cm	2cm	0cm	0cm	1cm	0cm
5/7/24	1cm	2cm	0cm	0cm	0.4cm	0cm
5/8/24	.2cm	1.8cm	0cm	0cm	0.4cm	0cm
5/9/24	dead	No data	0cm	0cm	No data	0cm
5/10/24	dead	2.2cm	0cm	0cm	0.5cm	0cm
5/13/24	dead	No data	0cm	0cm	No data	0cm
5/14/24	dead	3cm	0cm	0cm	0.5cm	0cm

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	Nico

Date	Sunflower			Dandelion		
	Moon	Mixed	Garden	Moon	Mixed	Garden
5/17/24	dead	3cm	0cm	0cm	1cm	0cm
5/20/24	dead	3cm	2cm	0cm	0.7cm	0cm
5/22/24	dead	3.3cm	2cm	0cm	0.7cm	0cm
5/28/24	dead	4cm	2cm	No data	2cm	0cm
5/29/24	dead	4cm	2cm	No data	4cm	0.1cm
5/31/24	dead	4cm	3cm	No data	4cm	1cm
6/3/24	dead	4cm	3cm	No data	6cm	1cm

MO-5: Gardening on the Moon

Date Completed	Lead Student	Participating Students
6/3/24	Nico	Nico

The plant that did better was the sunflowers. They sprouted earlier than the dandelions and grew more overall. The soil that did better was the mixture between moon soil and garden soil, as both of those plants growing in that soil sprouted before the garden soil, and had more growth than the garden soil. The sunflowers sprout faster than dandelions so they had more time for growth, which explains why they did better growth wise. The mixture of soils may have done better because the moon soil tended to filter out none of the water, while the garden soil filter out a lot of it, so the mixture may have been a happy medium.