

A Photo Essay

A soul was remanded to heaven, and a blessing came down to earth. In the winter of 2015, Mrs. Sue Moses, devoted mother and dedicated community passed away. Her passing left a void in many of our hearts, but she also left a legacy.

Her legacy was one of love – love of G-d’s beautiful world, love of children, love of knowledge, and love of Eretz Yisroel.



Due to a generous donation made by the Kohelet Foundation in memory of Mrs. Sue Moses, we decided to build a greenhouse in her memory. We wanted the greenhouse to give our children a hands-on in real time experience in agriculture, develop an appreciation of G-d’s world, and have a better understanding of how Israel meets its agricultural needs in the context of its climate and limited rainfall.

Originally we thought we would grow typical herbs in a “typical” soil environment. We planned a curriculum around it which included all the grades. The goal was to have the children play an active role in cultivating the plants while learning the relevant scientific principles. Once the plants were harvested, the goal was to sell the produce and give part away to the JRA food bank and to elderly citizens.

In August 2016, a parent in our school approached us with the possibility of a corporate sponsorship to work together on a project. He introduced us to hydroponic grower Mike Andrus owner of FTG (Future Tech Global). One of the projects the company is working on is experimenting with the latest hydrating technology to prevent aphids from feeding on hydroponically grown plants. Politz Hebrew Academy went into a partnership with FTG to use the greenhouse to enhance STEM programming while allowing FTG to use our greenhouse for their experimentation.



Overall Curricular Goals

Goal: To allow students to grow plants (lettuce) in a soilless environment.

Objectives

1. Students will:
2. Understand vocabulary related to hydroponics
3. Demonstrate an understanding of how a basic hydroponics system operates and explain the different components of the system.
4. Demonstrate the ability to work with others and to cooperate the coordination plant tasks.
5. Data will be collected and entered into a designated journal.
6. Create a visual display of their data in the forms of charts and graphs.
7. Assess the transformation of a seed to a mature plant and document the speed of formation of roots, shoots, and leaves. Complete sketches and measurements on a weekly basis.
8. Observe the growth of Romaine Lettuce.
9. Work together with FTG to test the hypothesis that the water being used for the project will detract aphids from attacking the lettuce leaves.



The Israel Connection

Yisroel is certainly a part of our curriculum and a part of our hearts. We will be expanding our study of Israel to include hydroponics as a component of agriculture in this arid country.



Objectives

The students will:

1. Understand the topography of the land and the need for an artificial aquatic system.
2. Understand the system of “Growponics” as a major source of “farming”.
3. Connect with the founder (via skype) of “Green in the City” – a rooftop farm in Tel Aviv which grows organic vegetables. Their primary product is Romaine lettuce. As our focus is Romaine lettuce, we will maintain an on-going relationship with “Green in the City”.
4. Compare our hydroponic system with that of “Green in the City.”



Expected Outcomes from our **Hydroponics Project**

- Politz Hebrew Academy will be able to add a new dimension to its science curriculum using a Project-Based learning model.
- The students will have a real-life experience growing Romaine lettuce in the Sue Moses Memorial Greenhouse.
- The students will understand the way hydroponics works, the benefit to the environment, an alternative to growing healthy and nutritious produce.
- The partnership between Politz Hebrew Academy and FTG will be innovative as the project is experimental in nature, innovative and has global ramifications for the Kashrus world. The project involves using Plasma water which is supposed to detract aphids from attacking the vegetables. The ramifications for Kashrus will be exponential. This will certainly put Politz Hebrew Academy on the “map”.
- The students will form a relationship with the directors of GROWPONICS in Israel.
- The lettuce that will be grown will be donated to JRA or a similar organization.



