



Sow It Forward: Vertical Garden Program

Resource Guide

A guide to help educators create and maintain an indoor school garden program





Disclaimer:

The Arizona Sustainability Alliance (“AZSA”) is an Arizona nonprofit corporation committed to protecting our environment and promoting sustainable living through action and advocacy. This resource guide is meant to provide general knowledge and primary information to educators regarding vertical/aeroponic gardens. Third-party information discussed herein is publicly available and does not constitute or imply endorsement by AZSA. Furthermore, AZSA makes no promotion, representation, nor any warranties regarding the performance or characteristics of any specific company, vertical/aeroponic gardens, or associated products.

Sow It Forward: An Introduction

Sow It Forward is a program created by The Arizona Sustainability Alliance (AZSA) to help teachers bring gardening and food education right into the classroom. Utilizing indoor, aeroponic gardens, AZSA has impacted over 2,500 students and provided them with education and access to fresh, healthy food.

The initial inspiration for this program came from the passion of volunteers to help schools grow food; however, with some research, it became abundantly clear that maintaining an outdoor garden is difficult. It requires many hours of work to weed, seed, water, control pests, and sustain healthy soil. Although this work is extremely rewarding and beneficial for students, most teachers just do not have enough time to fulfill all of the needs that a garden requires. To help teachers conveniently grow food in their classroom and provide gardening education to students, AZSA created the

Sow It Forward: Vertical Garden program. The Program was piloted in 2017 in two elementary schools in Tempe. Based on overwhelmingly positive feedback from both teachers and students, the program was expanded to an entire school district in 2018. Working at the district level allowed AZSA to experiment with various methods of garden implementation and conduct research regarding student health and educational impact.

A Resource Guide For Teachers

The purpose of this resource guide is to help teachers replicate this program in their own school and to learn from the challenges, opportunities, and best practices before doing so. This guide includes the experiences of AZSA and is meant to support decision-making so that teachers can effectively implement indoor gardening programs into their schools and classrooms.

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Sow It Forward: History

AZSA piloted the Sow it Forward: Vertical Garden Program in 2017 in two first grade classrooms in Tempe. After the first three months of indoor garden growth, teachers reported remarkable results. Not only did the students love eating the fruits, vegetables, and herbs that grew, but they also became calmer, and more well-behaved with the garden in the classroom. Each hour, the garden manually waters itself, which teachers report has a calming and focusing effect on the students. Teachers claimed that even the most troublesome students would relax after being sent for a 5-minute garden break. These observations inspired AZSA to expand the program to impact more students throughout Arizona.

In 2018, AZSA partnered with the Fowler Elementary School District (FESD) to expand the Program to seven schools and one childcare center, with a total of 15 gardens in the district. The expansion immediately impacted over 500 students and provided students with a source of fresh, healthy produce, and the opportunity to experiment with growing and eating a variety of new foods.

The district-wide expansion allowed AZSA to experiment with program design features such as:

- Where the garden is located
- Who cares for the garden
- Who shares the produce

To measure the impact of the Program expansion, AZSA administered pre and post surveys to students and teachers. The surveys measured student knowledge and interest in growing and eating healthy food.



Student Impact

Before starting the Sow it Forward Program at FESD, we took the opportunity to survey students to find out how they felt about gardening and eating healthy foods. Although most students were excited to learn how to garden and enjoyed eating fruits and vegetables, about 24% said they did not want to eat anything from the garden; and over 35% claimed that they did not eat fruits and vegetables every day.



This equates to approximately 80 students district-wide or 5-10 students per classroom who we expected to not be interested in and not want to participate in. However, throughout the entire year, every student in each classroom was completely enthralled and wanted to plant the seeds, add the water, cut the plants, taste the produce, and share their reactions, without a single student ever choosing to not participate or try at least one new food. This reflects how classroom gardens can truly impact students and help to positively change attitudes and behaviors around eating healthy food which can have lifelong benefits for the students and their families.



"Getting to bring the vertical garden program to the Accelerated Middle School at Basha High School was an absolutely irreplaceable experience. Everyone who participated, whether it was the high school mentors or middle school participants, took away substantial knowledge in the field of sustainability and gardening. Beyond furthering students' passion for environmental science, participating in this program taught us to spread that inspiration to others in every situation imaginable."

-Nikita Bharati, Senior at Basha High School in Chandler, AZ

What is Aeroponics?

Aeroponic gardening is a process of growing plants without soil. Rather, the roots of plants are suspended in a dark chamber, where they are periodically misted with nutrient-rich water. The plant can be started from a seed or seedling in a growth medium, such as Rockwool or foam, in openings around the growth chamber. The stem and leaves of the plant are referred to as the canopy and grow outside of the chamber, where the leaves are able to absorb light and undergo photosynthesis. Aeroponic gardening can be done indoors or outdoors. For indoor environments, plants require lighting to mimic the sun and allow for photosynthesis. All aeroponic gardens require liquid, nutrient inputs to nourish the plants and provide essential minerals for healthy growth.



Photo retrieved from:

https://www.alibaba.com/product-detail/Vertical-Column-hydroponic-Aeroponic-planting-system_60653169635.html

Benefits of Aeroponic Gardening

Aeroponic growing systems provide clean, consistent, and efficient classroom food growth. Crops can be planted and harvested year-round without interruption and without the mess of exposure to soil, pesticides, and residue. Since the growing environment is clean and sterile, it reduces the chances of spreading plant disease and infection that can commonly be found in soil and other growing media.

According to NASA, “Aeroponics systems can reduce water usage by 98 percent, fertilizer usage by 60 percent, and pesticide usage by 100 percent, all while maximizing crop yields. Plants grown in the aeroponic systems have also been shown to uptake more minerals and vitamins, making the plants healthier and potentially more nutritious”.¹

This method of growing food has proven to be convenient for teachers as it can be done right in the classroom without the mess and does not require extensive labor to maintain. It also allows students to learn about alternative food-growing and gardening methods.



Starting an Indoor Garden

To ensure the success of an indoor gardening program, educators should plan and prepare before making the initial purchase. This guide is meant to help in the preparation process. Although several variables will be unique for each scenario depending on the school, staff, location, or educational goals. The following will outline the recommended steps for success, and things to consider along the journey.

Step One: Creating a Team

Although an indoor, aeroponic garden can be easily cared for by one person, it is recommended that every school create a team to ensure a resilient, sustainable garden program. Team can be different for each school. For instance, it can be a team of teachers from different classrooms who plan to share the garden throughout the year. A team can be a teacher and aids from the same classroom. It can even be the student council and the sponsor who plan to care for it together. The team must have at least one teacher or staff member who will be in the same position in the following year. This person will be able to share the information with each team

every year, and ensure that the garden is properly cared for over many school years. Incorporating students in the planning process can also be a great way to engage them in gardening logistics and improve learning outcomes. In any case, the team will be responsible for ensuring the health of the garden and maintaining it throughout the year. They will be in charge of deciding what to grow, how to distribute the produce, stocking the garden with necessary nutrients, ordering materials, and finding funding. Therefore, the more people on a team, the better. This will ensure that responsibilities are evenly distributed and not overwhelming for any one person.

Step Two: Strategizing

After a team has been developed, it is beneficial to sit down together and devise a strategy. A sufficient strategy will outline how the garden will be used, where it will be located, who will use it, and how it will be incorporated into classroom education. This will ensure that visions are aligned among team members, and help to focus garden research in the next step. The following are some thoughts to consider when discussing the strategy, and how they might impact the garden brand that the team ultimately decides on:

- Who will be using the garden? If the garden is intended to be used by multiple teachers it is worth considering how this will work. Will the garden be moved among different classrooms? If so, a garden with a dolly or wheels might be the best option. What will the schedule look like for sharing the garden?
- Where will the garden be located? If the garden will be in a classroom with no windows, then a lighting system will be necessary to ensure growth. If it will be outdoors, or in a well-lit area, there may be no need for lights at all.
- How will the garden be used? If your team wants to use produce for a farmers market or in the cafeteria, then a high-yield garden might be the best option. If it is purely for educational purposes, something with a smaller-yield might be more economical and suitable for classroom needs.
- What will you grow? Fruiting plants like tomatoes and melons will require a support cage to ensure proper plant spacing, they will also need more space as they can grow quite large. Whereas herbs and leafy greens will need less space and might not require a cage at all.
- How will you utilize produce? This can also help guide what you grow. Will you have salad parties with your classroom or start a school farmers market?

The possibilities are endless and always evolving, don't feel pressured to know every detail, but talking it all through with your team will always be beneficial and help you best prepare for the next steps.

Step Three: Research

Now that your team has identified the logistics of the garden program, and what needs will need to be met. You can begin to research what garden brand will be most suitable. The following is a list of different websites with gardens of all shapes, sizes, and costs. Although this is a great place to start, there are a plethora of options out there. So don't be afraid to explore!



- Tower Garden®:
<https://www.towergarden.com/tg>
 - High yield, transportable, lights included
- Nutritower®: <https://nutritower.com/>
 - High yield, non-transportable, lights included
- Aero Garden®:
<https://www.aerogarden.com/aerogardens.html>
 - Smaller size, less yield, space efficient, lights included
- Grow Up® Hydrogarden:
<https://www.domyown.com/grow-up-deluxe-hydrogarden-kit-p-14500.html>
 - Cost-effective, non-transportable, no lights
- Interested in building your own? Check out these instructional websites:
 - <https://gardenpool.org/online-classes/how-to-make-a-simple-aeroponics-system>
 - <https://www.simple.com/blog/budget-to-build-your-own-aeroponic-garden>

Garden Comparison



Name: Tower Garden®

Company: Juice Plus

Cost: \$1,070.00

Size: 62 x 30 x 30 inches

Yield: 20 plants

Supplies Included:

- Garden
- Minerals & pH solution
- Lighting Systems
- Dolly
- Support Cage
- Water & Light Timer
- Seeds
- Rockwool
- 20 Grow Baskets



Name: Vertical Hydroponic Garden®

Company: Nutritower

Cost: \$949.00

Size: 89 x 24 inches

Yield: 32 plants

Supplies Included

- Lighting System
- 32 Growing Plants
- 32 Filters
- 32 Grow Baskets
- 32 Basket Clips
- Watering Tubes
- Water Cycle Timer
- Seedling Starter Kit

Initial & Recurring Costs

It should be expected that any garden will have both initial and recurring costs. Initial costs typically include the garden itself, accessory items (e.g. dolly, lighting system, and cage), nutrients, pH kit, and seedling starter pack. Recurring costs apply to the items that need to be replenished over time, such as nutrients, pH tests, and seeds. Additionally, components such as the water pump may need to be replaced after time due to normal wear and tear.

The initial cost of the Tower Garden®[®], for example, is \$1,073.00 (depending on shipping charges that vary by location). This cost covers all necessary materials to run the garden for approximately six months. After this initial period, the recurring cost of the garden range from \$75-\$100 annually.



For the Sow It Forward Program, AZSA provides funding for all initial costs through grant and donor support. The schools are responsible for covering all recurring costs after that point.

There are several ways that schools can acquire funds to maintain the gardens. The first is by asking the parents of each student to donate \$2. With a class of 30 students, this will easily cover one year of garden costs. Another method is to sell garden produce through a school farmers market. This can be done at lunch, after school, or during special events like band concerts or theatre performances.

Students and teachers can either choose to strategically value the produce to ensure funding goals are met, or share it as a “donation only,” where parents are likely to spend more than the produce may be valued. Lastly, school districts often have extra funds to support certain health programs. This is the case with the district that AZSA has worked. The district office covers the recurring costs of each of the school gardens.

Step Four: Find Funding

Once you have researched which garden will be best for your school, you can create a budget for initial and recurring costs based on associated materials for that garden. If your school does not have money budgeted to purchase a garden, then the funds will need to be raised among your team. There are many ways to do this, and these methods can be employed simultaneously to maximize efforts and diversify income. The following outlines potential ways to raise money:

- **Fundraiser:** Both internal and external fundraisers can be a great way to raise money for a cause. An internal fundraiser can be something as simple as having parents donate money in exchange for a pajama or dress down day. An external fundraiser can be employing students to sell items to friends, family, and neighbors, such as used books or t-shirts.
 - [TerraCycle](#) offers a great recycling program to help raise money in exchange for recyclables
- **Grants:** Many organizations provide garden funding to schools through grant awards. The following are just a few that have an annual award cycle:
 - <https://kidsgardening.org/2019-youth-garden-grant/>
 - <https://www.annies.com/giving-back/grants-for-gardens>
 - <https://www2.fiskars.com/Community/Project-Orange-Thumb>
- **Donations:** There are many parents, local companies, and organizations that are willing to invest in school gardens. Draft a letter of request for donations and send it home with students and out to local companies and organizations to foster monetary support for your school garden.
- **Crowdfunding:** Similar to donations, some platforms can be used to share your needs and get community assistance.
 - Annie's Garden Funder:
https://www.crowdrise.com/anniesgardenfunder?utm_source=annies&utm_medium=gardenpage&utm_campaign=g4g

Step Five: Purchasing the Garden

Once funds have been procured, it is time to purchase the garden. Most orders will be done online unless your school has chosen a local distributor. In this case, you can pick the garden up and save on shipping costs. Be sure that all necessary initial items are included in your order. Some items, such as a support cage or extra nutrients do not need to be ordered immediately. However, materials such as a lighting system, water



A thriving garden at Western Valley Middle School, 2018, Phoenix, AZ
Photo provided by: The Arizona Sustainability Alliance

pump, seeds, and pH kit will be required from the start. Review the strategy one last time before finalizing the order to be sure that you have everything you need.

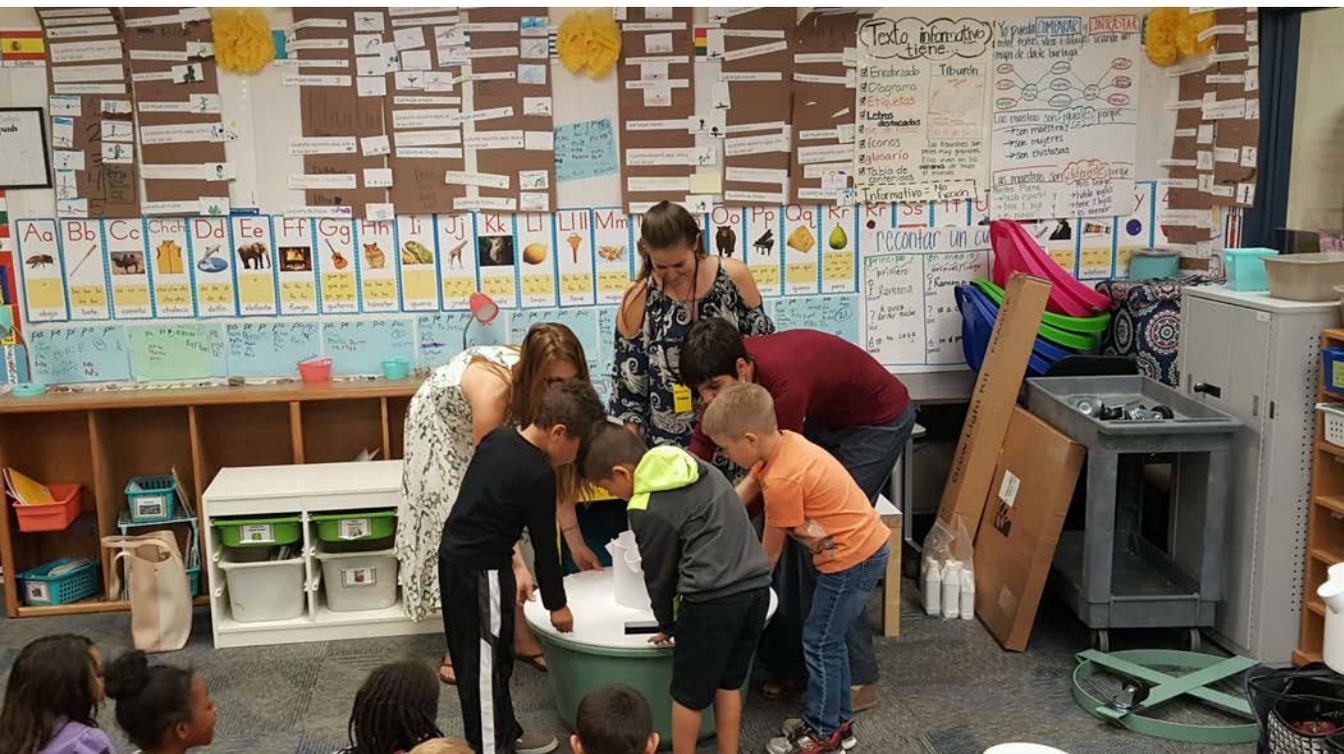
Often times, garden distributors will provide the option of a payment plan. This option will be best for some schools depending on funding availability. Double check your order so that you know how payments will be scheduled so you can account for funding over the payment plan.

Once the garden is ordered and you are patiently awaiting the arrival, you can prepare the space. Most indoor gardens will require an electrical outlet nearby or an extension cord to reach. It is recommended that the gardens are not located too closely to electrical equipment that can be damaged by water or possible plant debris.

Step Six: Installing the Garden

Once the garden has arrived at the school, it is ready to be assembled. This will be a different process for every garden brand, but there should be instructions included that will help guide you. This is a great opportunity to get students involved so that they can understand the mechanics of the garden and how it works. It is highly recommended to preview the process with your team prior to engaging students so that you have an idea of what to expect and can be prepared to explain the function of the parts as you assemble them.

Students will have an endless amount of questions. What can be grown? How do plants grow without sunlight? When can you eat the produce? Refer to Appendix A for a guide to frequently asked questions and a timeline of what to expect. Also, remember that this will be a learning process for everybody. It is okay to not have all the answers right away, because you will surely discover them after working with your garden for a harvest or two. Practice makes perfect, and in no time you and your team will be expert aeroponic gardeners.



First grade students at Kyrene Del Norte assisting with garden set up and installation, 2017, Tempe, Arizona
Photo provided by: Arizona Sustainability Alliance

Once the garden has been installed, you can begin planting seeds. There are multiple ways to approach this.

1. Seedlings can be started in a mini-greenhouse, such as a tupperware container with holes poked in the lid. Seeds will be planted in rockwool and kept moist until they have sprouted and can then be transplanted to the garden.
2. Seeds can be planted in rockwool directly in the garden. Many gardeners find this approach to be unconventional. However, this is the method used for The Sow It Forward program, and it has a generally high success rate. If something doesn't sprout, you can always plant another seed and try again.
3. Purchase seedlings from a specialty aeroponic store, such as True Garden in Mesa, AZ. This will reduce the time to harvest and also ensure the plant will grow in your aeroponic system.

Once seeds are planted, it is best to label the garden so it is clear what is growing where. This can be done with tape or with a toothpick, as illustrated in the photos on this page.



Caring for Your Garden

Step Seven: Maintenance

One of the best features of an aeroponic garden is the relatively low-maintenance required for healthy plant growth. Indoor, aeroponic gardens require only light, water, nutrients, and a healthy pH to thrive.



Garden harvest at Basha High School (BHS), 2019

For many gardens, the light and water systems are set to a timer. So all that needs to be monitored are water levels, nutrient inputs, and pH. When controlling lighting conditions, there are a few things to consider:

- How efficient is the lighting source? LED is high efficiency and low energy output, so it doesn't burn as hot, which makes it safe for classrooms and student experimentation.
- Plants need approximately 12 hours of low light or darkness. If garden lights are scheduled to turn on at night, make sure classroom lights are dimmed during the school day.
- If there is ample lighting in the classroom, try not turning on the garden lights, and see how the plants react. Experiment, discuss, and most importantly have fun!

Regular cleaning of the garden and water pump are recommended to ensure proper functioning. At schools, this usually happens when all the plants have been harvested before winter break and again before summer break. Every garden is different; therefore, it is important to read all of the care instructions provided when you first purchase the garden, and to record or store the instructions for future reference.

Step Eight: Harvesting the Garden

The best part about a garden is the delicious produce that it yields. After 1-3 months of aeroponic growth, most greens and herbs should be ready to be harvested, fruits and vegetables may take longer. At schools, this is the perfect time to set aside an hour or two to harvest the garden and try all of the foods the students have grown. There are many options for how to share and distribute produce. Some ideas are listed below:

- A salad or salsa party with the classroom
- A school farmers market
- VIP lunch with the principal
- Send it home with students
- Share it with other classrooms
- Experiment with fun recipes (basil pesto or mint tea)

Refer to Appendix B for recipe examples

Harvesting the garden also offers a great opportunity to journal, draw, taste test, and record, or discuss sensory details about the plants with students. In one school, the garden team is growing the same produce in both their indoor and outdoor gardens to compare yield time, taste, color, heights, and other plant variables.



Salad party after the garden harvest at Basha High School (BHS), 2019

Photo provided by: Nikita Bharati, an AZSA volunteer and BHS Student

S.T.E.A.M. Learning

Step Nine: Integrate STEAM garden learning into existing curriculum

Gardening is not only a great way to get kids growing and eating healthy food, but it also serves as a fun, interactive learning tool to engage students in STEAM (Science, Technology, Engineering, the Arts, and Mathematics) learning.

S

With indoor classroom gardens, students have the chance to explore scientific concepts ranging from plant anatomies, like flowers and root structures, to pH testing and nutrient analysis.

T

Garden technology is a great way to discuss how plants survive despite the lack of soil and sunlight. How do these technologies work? Who invented them? How else could they be used?

E

While building the garden, students can witness how the internal and external structure supports function and get first-hand experience assembling components.

A

The gardens support a plethora of artistic opportunities, whether it be experimenting with culinary recipes, drawing the plants as they grow, or writing poems about how they make students feel, there is always a chance to be artistically inspired by the garden.

M

Plants offer a variety of fun and engaging opportunities to measure, calculate, and mathematically analyze growth and anatomy. For instance, calculating the percentage of nutrient additions based on water inputs, measuring plants throughout growth to calculate growth rate, or simply counting the leaves on a plant.

The gardens come equipped with everything necessary to support experiential and exploratory lessons with students, and even better, they are already right in the classroom, ready to be integrated.



Doelis Pankey, leading a lesson on plants and pH with the 3rd grade Student Council at Sun Canyon Elementary, 2018

Photo by: The Arizona Sustainability Alliance

Step Ten: Have fun and support student inclusion!

Getting students excited about growing and eating healthy food is the overarching mission of the Sow it Forward Program. Students who feel free to explore, ask questions, and express their creativity will be the ones most impacted by the gardens.

Let students help in deciding what will be grown, building the garden, and planting the seeds. Some students like to name their plants or mark them so they can watch them grow. Get creative, try growing certain plants to make a recipe with students, or experiment with growing conditions to see how it affects how the plants grow and taste. Don't be afraid to try new things!

Remember that the gardens are an experiential learning tool. Have fun and make mistakes, it's all part of the process. Use every experience as an opportunity to learn with students and you will be a master in vertical gardening in no time.

*Refer to
Appendix B for
garden recipes*

First grade students at Fowler Elementary getting ready to plant their seedling transplants in to their new vertical garden!





Scaling the Program Up

Vertical farming is a great way to grow a large amount of produce in a relatively small amount of space. This is a great option for schools who supply their cafeteria with school-grown produce, or for those who have a school farmers market or culinary program.

When scaling the garden up, you have a few options.

1. Buy more of the same gardens. This is a convenient approach to increasing output but might get expensive depending on how large you would like to scale your program.
2. A more economic approach is to try building your own. Systems provide a great introduction to the principles behind vertical gardening. Once the mechanics are understood, an online search will quickly provide you with all information you need to build your own garden at a larger scale.
3. Hire a contractor to help in complex designs, such as indoor or outdoor wall gardens, as seen in the photo above.

Sow it Forward Scaled

Vertical Farm to Market pilot

As the AZSA continues to expand vertical garden education throughout schools in Arizona, program leaders are continuously advancing the approach to student engagement and program sustainability.

In 2020, the AZSA will begin working with the Alhambra Elementary School District to introduce teams of students, teachers, and staff to vertical farming and farmers market education. This will allow students to learn how to both grow their own food and build a successful farm to market business; providing valuable farmpreneur education to students throughout the district.

Sow it Forward Program is a perfect example of how a vertical garden program can start off simple, and then grow to something much more complex. It took time, energy, and lessons learned to develop the program to what it is today. But at the end that's all part of the fun. Enjoy the process, take time to learn and experiment, don't be afraid to fail, and most importantly have fun!



Appendix A

In this appendix, you will find :

Frequently Asked Questions.....27-28

Timeline for
Teachers.....29



Appendix A

Frequently Asked Questions:

What is the difference between aeroponic, hydroponic, and aquaponic growing?

To lay it out simply, in aeroponic systems the roots are suspended in air and are regularly misted with nutrient-rich water.

In hydroponics the roots are suspended in nutrient-rich water that is pumped or oxygenated.

Aquaponics utilizes nutrient-rich water from fish and usually involves a sand or gravel growing medium.²

How much water will the garden use?

NASA has estimated aeroponic gardening to require up to 98% less water compared to traditional in-ground gardens. However, the amount of water that your garden will use will depend greatly on what you are growing. Large fruiting plants like melons or pumpkins will need much more water and nutrients compared to non-fruiting plants like basil or lettuce.

How long will it take for the plants to grow?

Plants usually begin sprouting within a week or two, and sometimes are ready to harvest within two months. Again, this largely depends on what you are growing. Fruits usually take much longer to develop and mature.

What can you grow in aeroponic gardens?

A large variety of fruits, vegetables, and herbs can be grown aeroponically. However, the size of your garden may constrain what should be grown. For instance, although some trees and bushes can be grown without soil, it would not be recommended to grow a blackberry bush in a classroom garden. For this reason, it is important to do your research before planting seeds and take into consideration variables such as:

- Plant size/expected dimensions
- Plant anatomy (e.g. vines, thorns, pollen)
 - Avoid anything that might pose a threat to students
 - Root vegetables **can not** be grown aeroponically
 - Indoor fruiting plants will require self-pollination
- Growth time
- Does the plant fruit within the first year?

Appendix A

Frequently Asked Questions:

How much artificial light do the plants need?

Every plant is unique, and therefore, has its own optimal light conditions. Generally, it is recommended to provide about 12 hours of light a day. It is important to remember that plants need to rest too, so make sure that when the garden lights are off, the plants are not being exposed to too much additional light from windows or bright classroom fluorescents.

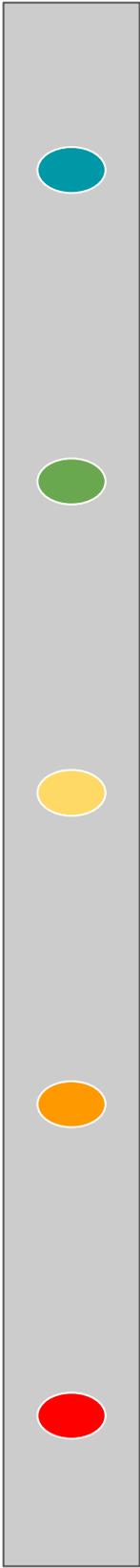
Is aeroponic gardening organic?

The easy answer is mostly not. The more complex answer is that plants need many minerals and nutrients to thrive. One of these essential minerals is iron, which is readily available in the soil but does not dissolve well in water. So to provide nutrients through a liquid medium, mineral blends must use a synthetic binding agent to help absorb the metals and provide iron to plants. However, some growers claim to have made the process organic by using filters to allow for natural absorption, but most aeroponic nutrient blends will contain the synthetic binding agent.

Where do the gardens go over summer vacation?

This is up to your school and the policies. In one school district, they break all gardens down to be stored in the classrooms over summer. Another district has a special storage unit in the district. At some schools, teachers take them home to care for gardens while students are away.

Garden Timeline



Day 1:

Garden Install

- Setup garden
- Add water
- Add minerals
- 20 mL of A & B

for every gallon

New plants need only ½ this amount

- Full reservoir = 20 gal
- Lights on for 12 hours and off for 12 hours
- Check water and pH once every week
- Ideal pH = 5.5-6.5*
- Plant seeds!

2-4 Weeks:

Garden Check-In

Seeds should be sprouting!

Remember to **check water and pH** once a week.

Add the regular amount of minerals next time you fill the reservoir with water.

5 - 8 Weeks:

Taste Test

Plants should be growing and ready to sample!

This is a great opportunity to involve the class and taste test some of the delicious food growing in your garden.

Afterwards, you can reflect as a class, individually journal the experience, or draw the foods each student liked best.

8-12 Weeks:

Harvest Time

By this time your garden should be ready to harvest!

With all the delicious food, you can:

- Send food home with students
- Enjoy a class salad party
- Share with the school
- Try out a delicious recipe

*Mint lemonade?
Basil pesto?*

End of Year:

Garden Breakdown

Plant, harvest, and enjoy all year long!

At the end of the school year, the garden needs to be taken apart, cleaned, and stored for next school year.

Make sure to harvest all produce and store garden in a safe place over summer break.

Repeat next school year!

Appendix B

In this appendix, you will find:

Cookbook Recipes.....	31-32
Basil Pesto.....	31
Peppermint Tea.....	32



Appendix B

Basil Pesto

- 2 cups fresh basil leaves
- 2 cloves of garlic
- 1/4 cup pine nuts
- 2/3 cup extra virgin olive oil
- 1/2 cup parmesan or pecorino cheese
- Salt & pepper

Add ingredients to food processor and pulse until fully chopped and enjoy!



Appendix B

Mint Tea

- 2 cups water (filtered)
- 15 mint leaves (fresh, peppermint or spearmint)
- Optional: 2 teaspoons sugar (or honey; start with 1 teaspoon per cup and add more as desired)
- Optional: ice
- Optional: lemon slices

Boil water over stove or in electric tea kettle, remove from heat, add mint leaves and let steep 3-5 minutes.

Enjoy hot or ice, sweetened or unsweetened, with or without lemon. A great chance to experiment and discover new tastes!





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Fowler Elementary District
Tower Garden
Green Bronx Machine

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