School Garden Report

This action is a variable point action, ranging from 10 to 30 points depending on the number of garden types at the school. Garden types include: outdoor soil-based plots/raised bed gardens; greenhouse gardens; hydroponic gardens (including Aeroponic); and aquaponics gardens. For each type of garden you wish to earn credit for, complete a separate garden report (up to 3) and upload it to the application.

Reminder: *The garden and supporting documentation* ***must be operational in the current or previous school year****.*

1. Garden type selection.

Select the one (1) type of garden applied for in this report. If submitting for additional garden types, please complete separate garden reports for those gardens.

- ❑ Outdoor soil-based plots/raised bed gardens
- ❑ Greenhouse gardens
- ❑ X Hydroponic gardens (including Aeroponic)
- ❑ Aquaponics garden

2. Please describe the following information on the garden, including:

a. History: With the success of our first STEM elective, the school wanted to expand its elective program with a course that focused on environmental sustainability. The development of the Environmental STEM course, headed by Mr. Ross Cruz, focused on local, national, and global issues based on the Global Goals. Winslow Township is surrounded by a farming community, however, many of our students coming into the school have limited knowledge about the farming industry. In conjunction with traditional farming, the course focused on alternative ways to feed our ever-growing population. With the support of our local nursery, Dambly's Gardening Center, students began developing hydroponic systems by repurposing household supplies. Grant funding from the Environmental Community Service Award allowed for the course to purchase hydroponic systems for the class to utilize. It became evident that the utilization of hydroponics within our science classes would be a perfect way to incorporate hands-on instruction while covering the NGSS. Thanks to Sustainable Jersey for Schools, grant funds were awarded to purchase hydroponic Tower Gardens for our science classes.

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b. Location: The hydroponic Tower Gardens are located and utilized within all of our eighth-grade science and resource classes. The Environmental STEM elective has a variety of hydroponic systems such as a DWC, NFT, Bato Bucket, and Ebb and Flow.

c. Crops Grown: There are a variety of crops that are grown in the hydroponics systems throughout the year.

-Herbs: basil, cilantro, parsley, mint

-Vegetables: microgreens, kale, tomatoes, spinach, peppers, and a variety of lettuce

d. Environmentally friendly practices used: There are a number of practices we use to be environmentally friendly.

-All hydroponic systems are set on timers to run efficiently without excess power usage.

- Systems are checked daily to determine the optimal time to change nutrient solution.

-The systems use LED lighting for energy efficiency.

-Plant waste is placed in compost bins to utilize in the Bernzomatic IDEA Garden.

e. How the food produced from the garden is used (i.e. at the school, donated, etc.)

The food produced from our systems is used to educate our students on healthy and tasty alternatives to highly processed and fatty foods. Food challenges based on the popular cooking show “Chopped” are developed to have students create healthy plant-based dishes based on the crops available from our hydroponics systems. The recipes are then shared with the student’s family to promote healthy eating habits.

f. How the garden teaches environmental/nutrition education (reference uploaded documents)

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Students explore some of the environmental issues facing our country and the world through the study of the campus environment and develop/test solutions to address those issues. They start off by designing soda bottle hydroponic systems to understand the basic concepts of hydroponics as well as looking at alternative ways to repurpose trash. More advanced hydroponics systems are created from repurposed trash and mechanical pumps. From there they begin to run and maintain the classroom hydroponic systems. Food challenges are developed for teams of students to create healthy and delicious alternatives to highly processed and fatty foods.

3. **Provide at least two samples of documentation showing environmentally friendly practices are used in the garden.**
    a. Only one social media post will be accepted
    b. All materials submitted should have a date, **including the year**, indicated on them

Project newsletter article	History: https://wtmseagle.com/1244/schoolwide-events/science-salads-put-healthy-habits-on-display/ https://middleschool.winslow-schools.com/apps/video/watch.jsp?v=10046728 https://wtmseagle.com/771/classroom-spotlight/11-21-science-classroom-spotlight/
End of growing season report	Students created recipes and their evaluations based on the crops available in our garden for our food challenges.
Materials used to recruit participants/volunteers	

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Website link	https://wtmseagle.com/category/classroom-spotlight/
Social media post/page (only one allowed)	