

HEALTHY **FOODS**  
for HEALTHY kids  
THE FIRST STATE SCHOOL GARDEN EXPERTS



# HEALTHY FOODS for HEALTHY kids

## GROWING A LOVE FOR VEGGIES

How empowering students leads to healthy communities

Lydia Sarson, Executive Director

Thursday, June 6 2024

# Who am I?



## LYDIA SARSON

EXECUTIVE DIRECTOR, HFHK

- Joined HFHK in February 2021
- First Executive Director, Founder preceded
- HFHK combines personal (cooking & gardening) and professional passions (nonprofit management & business development)

# Who is HEALTHY FOODS FOR HEALTHY KIDS?

## HISTORY

A Delaware non-profit organization, founded in 2008 by Dr. Thianda Manzara, a plant scientist.

## MISSION

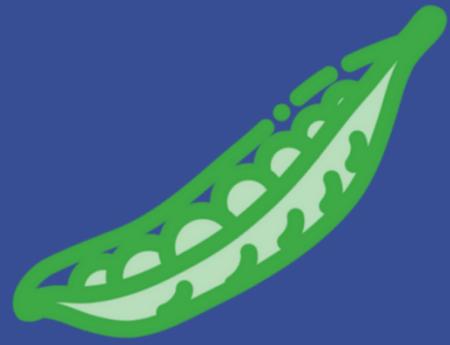
To inspire healthier lives by providing youth with joyful school gardening experiences and opportunities eat the garden-fresh vegetables they've grown.

## VISION

A vegetable garden in every school, leading to generations of healthy families throughout Delaware.



# OUR PROGRAM (in a pea shell!)



## WHAT WE GROW

- Cool-weather, fast-growing crops such as spinach, carrots, arugula, beets, bok choy, radishes, kale, turnips, & peas!

## WHEN WE GROW

- Planting - March and September
- Harvesting - May and November

## WHY WE GROW

- Teaches science in a fun and active way.
- Kids learn early on that vegetables can be delicious and lead to a healthier life.



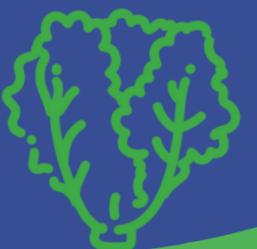


"This is so valuable for student learning ..."  
- Christy Kerr, Principal, Phillip C. Showell  
Elementary

## THE SEEDS OF OUR UNIQUE PROGRAM

- Carefully crafted lessons support the state's content standards for science (*NGSS-supported lessons*)
- A simple, reproducible framework for gardening that's attractive to administrators and teachers
- Every child in the school participates in each growing season, spring and fall regardless of age or ability
- Children experience "seed to cafeteria table" experiences up to 4 times during the school year

$$1 \text{ in-classroom lesson} + 1 \text{ outdoor garden lesson} = 1 \text{ Education Cultivation lesson}$$





**WE DO MORE  
THAN JUST  
BUILD GARDENS!!**



# IT'S A PARTNERSHIP



## HOW WE LAUNCH OUR 'EDUCATION CULTIVATION' PROGRAM IN A NEW SCHOOL

- HFHK and the school work together to find funding (grants, corporate sponsors, and private donors)
- HFHK conducts site visits, maps out garden area, and begins preparations
- HFHK orders all materials and schedules deliveries
- Together with the school, HFHK organizes volunteers for the garden build (takes place in 1 day!)



Lewes Elementary, before & after



# LET'S DIG IN!

## FIRST GROWING SEASON

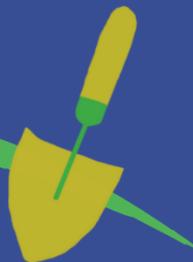
- HFHK staff models the garden lesson for each teacher in the school

## SECOND GROWING SEASON

- HFHK staff meets with each grade-level team

## THIRD GROWING SEASON+

- HFHK & Garden Coordinator choose crops each season
- HFHK creates planting kits for every K & 1st gr. teacher each season
  - Individualized garden maps & curated seeds (### in 2023!)
- HFHK coordinates with each school's GC for any garden needs (i.e.: compost deliveries)



## SECOND GRADE

### PREPARE THE SOIL

Students use cultivators to prepare the soil, while learning the difference between soil and dirt. They also learn about soil composition and properties.





# KINDERGARTEN & FIRST GRADE

## PLANT THE SEEDS

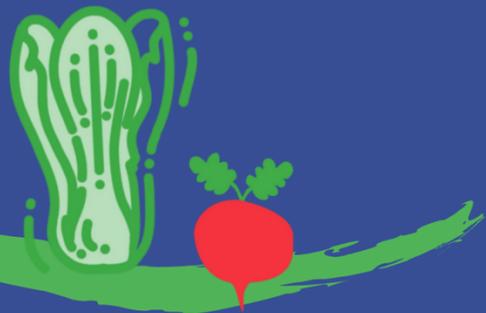
Students learn about seed structure and how to properly plant seeds. Using trowels, they prepare furrows and plant at depths according to the seed packet instructions.



# THIRD GRADE

## WATERS THE GARDEN

Students learn how to water a garden, how a drip irrigation system works, and about plant lifecycles. They watch for the first sprouts and handwater until they are visible.





HFHK

## FOURTH GRADE

### THE FIRST HARVEST

Students learn how to properly harvest a variety of vegetables, while observing hands-on the plant structure and function. They do this from two harvest lessons, one specific to Fall and the other specific to Spring.



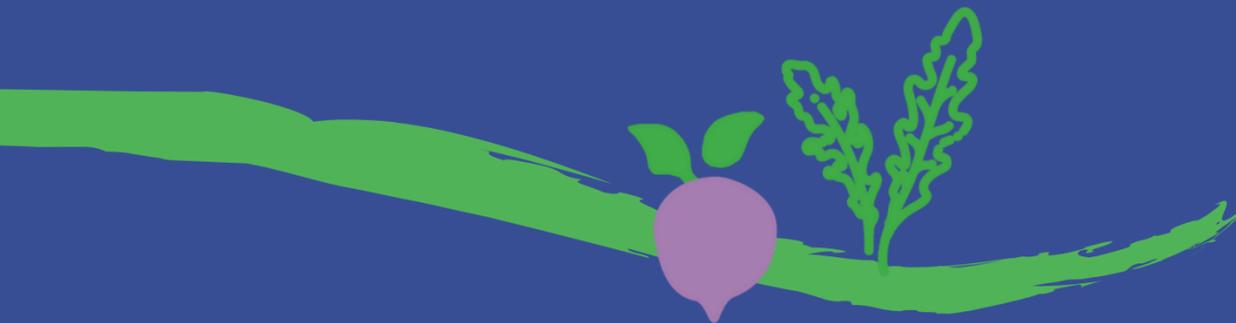
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## FIFTH GRADE

### 2ND HARVEST AND COMPOST

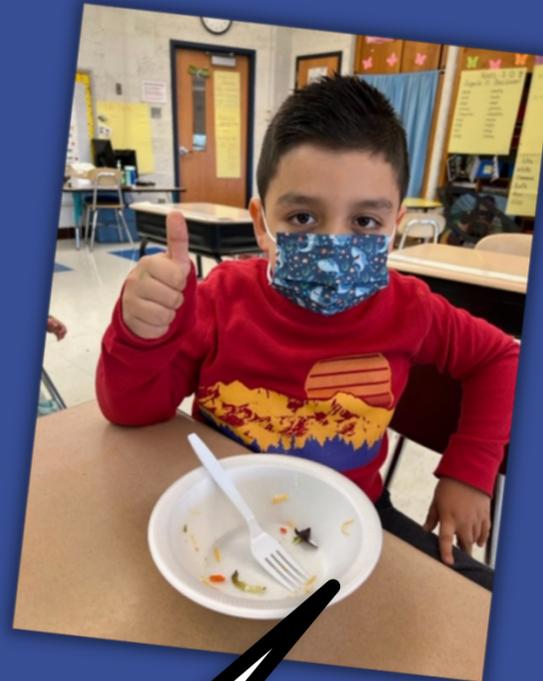
These students learn about the school garden as an ecosystem while harvesting and composting.

They also expand their knowledge of Matter and Energy.



# HFHkids HARVEST CELEBRATION!

Nutrition Services prepares the vegetables for the entire school to enjoy together at lunch, up to 4 times per year!



I never trusted a turnip,  
but now that I have it  
tastes good. The veggies  
are delicious!  
-4th grader, Brader Elementary



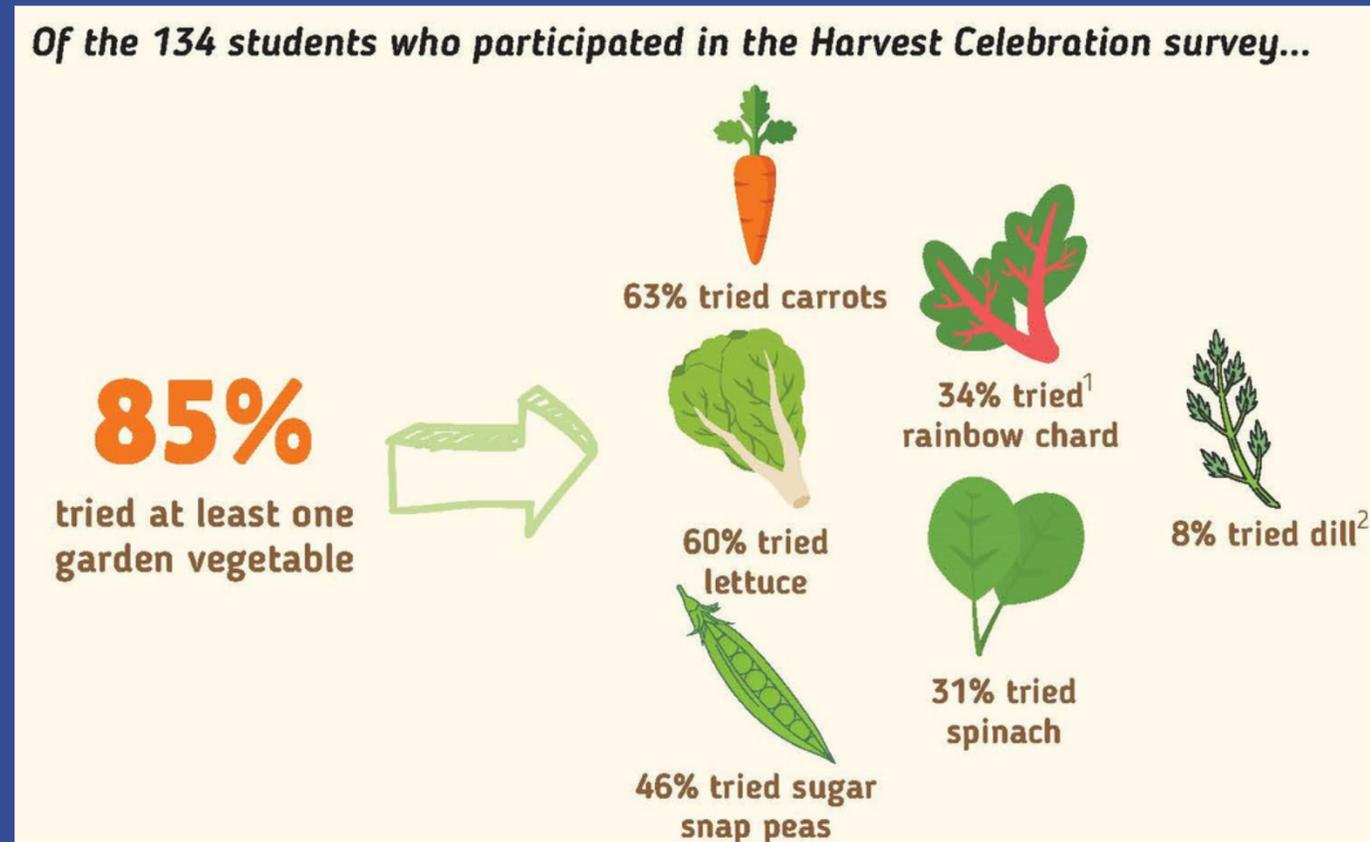
# 52 PARTNER SCHOOLS

WE'RE ADDING 6 NEW PARTNERS IN 2024!

- Bayard
- **Booker T. Washington**
- Brader
- Brookside
- **W. Reily Brown**
- Carrie Downie
- Carrcroft
- Delaware School for the Deaf
- Downes
- Eisenberg
- Early Learning Center (IRSD)
- East Millsboro
- **Georgetown**
- Forest Oak
- Forwood
- **Frear**
- Gallaher
- Hanby
- Heritage
- HB DuPont
- Keene
- Joseph E. Johnson
- John M. Clayton
- Lancashire
- Lewes
- Lewis Duel Language
- Lord Baltimore
- Lombardy
- Maple Lane
- Marbrook
- Marshall
- McVey
- Milton
- Mount Pleasant
- Nativity Prep
- New Castle
- North Star
- Odyssey Charter
- **Olive B. Loss**
- Pleasantville
- Phillip C. Showell
- Read
- Red Lion Christian Academy
- Rehoboth
- Serviam Girls Academy
- Shortlidge
- **Southern Elementary**
- South Dover
- Springer
- **Stubbs**
- Sussex Academy
- Sussex Montessori
- West Park Place
- Wilson
- Wilmington Manor



Figure 1.



# Our Impact



**"THIS IS COOLER THAN MINECRAFT!"**  
-4th grade student, Rehoboth Elementary

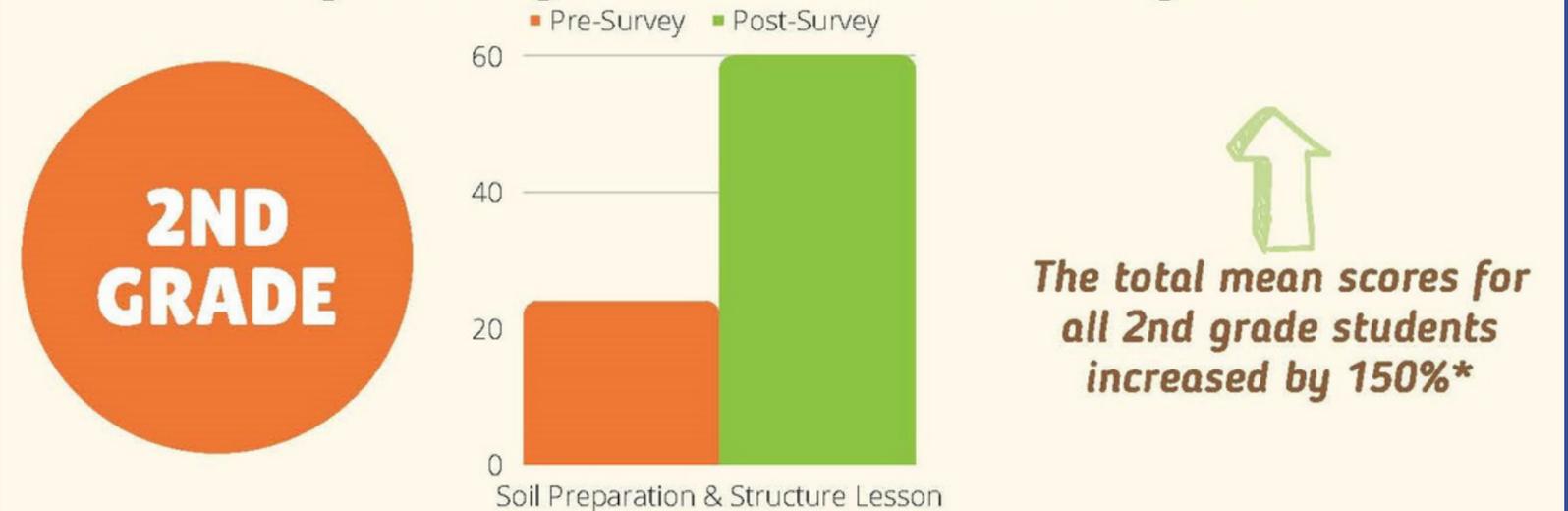


"It was AMAZING to see the level of excitement as our students planted, harvested, and ate vegetables that grew in our garden. Who would have thought that lettuce would become the number one requested vegetable at school? The students were motivated to taste the lettuce they had grown and super motivated to share their experiences with their families."

JANET HICKMAN, EARLY LEARNING CENTER,  
INDIAN RIVER SCHOOL DISTRICT



Figure 2. Change in total mean test scores for 2nd grade



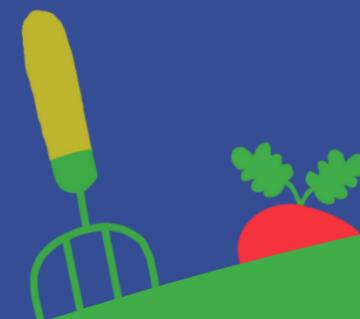
Data from Fig. 1 & Fig. 2 were collected by HFHK and analyzed by the University of Delaware, Aug. 2022.

# WHY SCHOOL GARDENS?

Garden based education has a positive effect on many aspects of student's lives

## SCHOOL GARDENS SUPPORT THE DEVELOPMENT OF:

- Environmental Awareness
- Fine and Gross Motor Skills
- Social and Emotional Skills
- Sense of Responsibility/Life skills
- Physical fitness
- Nutritional Awareness and Healthy Habits

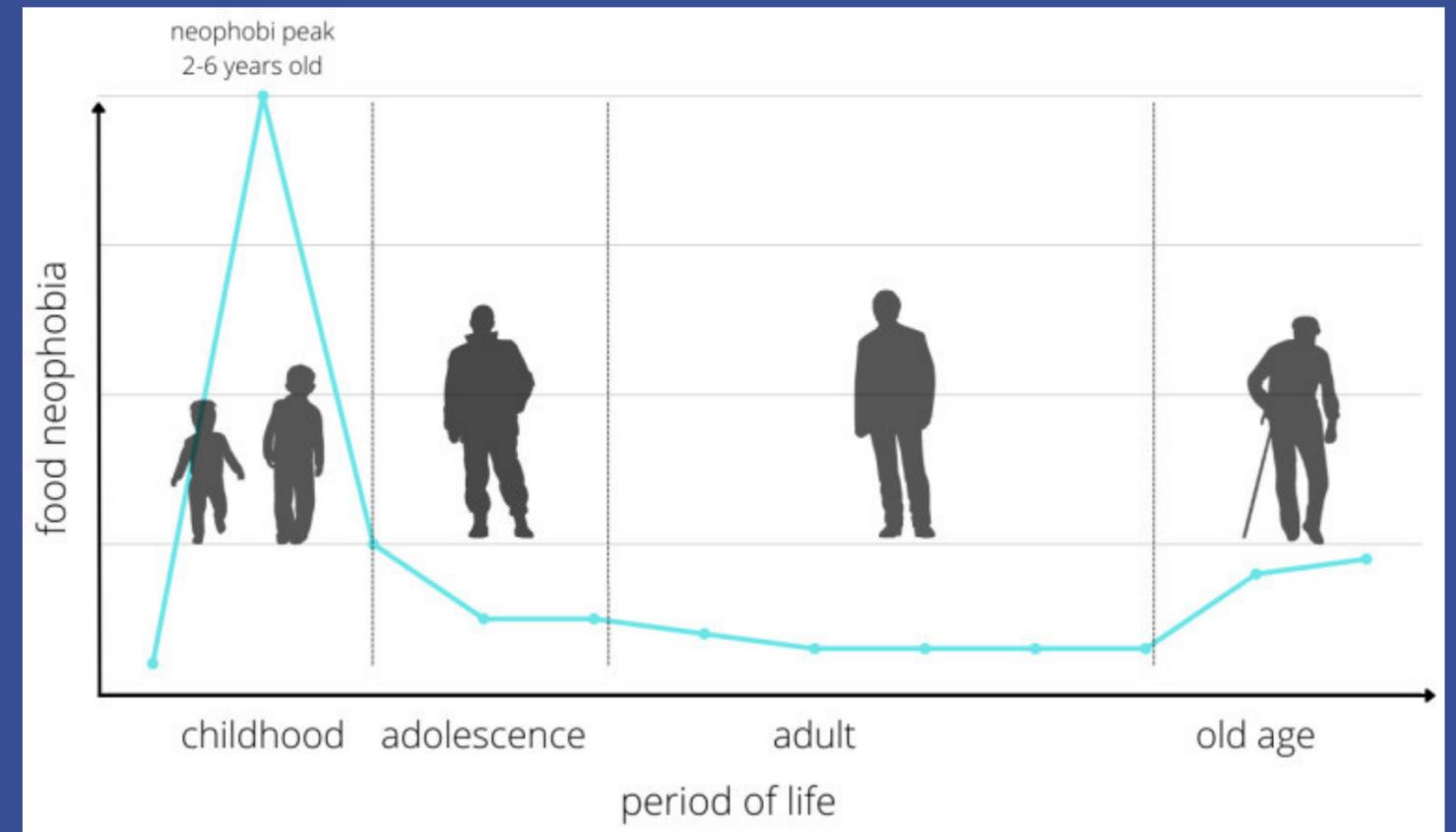


# WHAT STOPS US FROM EATING OUR VEGGIES?

## FOOD NEOPHOBIA:

The tendency to reject or avoid trying new and unfamiliar foods

- Spikes between the ages of 2- 6
- Higher levels of neophobia are associated with lower dietary quality (Jaeger 2017)



Neophobia levels throughout different periods of life (Białek-Dratwa 2022)

Dietary habits established in childhood are solidified in adolescence (Lee 2001)

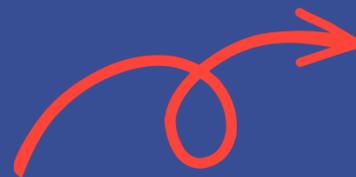
# CHANGING HOW STUDENTS VIEW VEGGIES

**Frequent & Consistent** exposure to new foods is the best way to combat neophobia (Lakkakula et al 2010)



## 2 MAIN BENEFITS OF SCHOOL GARDENS:

- 1 Direct exposure to whole foods in a comfortable environment
- 2 Knowledge to grow their own veggies at home



As children's garden knowledge increases, neophobia decreases and vegetable preference increases (Kim 2020).

# BRINGING HOME A LOVE FOR VEGGIES

EMPOWERED WITH THEIR OWN GARDENING KNOW-HOW:

STUDENTS SHARE THEIR EXCITEMENT FOR GARDENING AND FRESH VEGGIES WITH THEIR FAMILIES!

HFHK continues to support students at home through seed packet giveaways



In 2020, HFHK gave away 347 seed packets to show families they can grow on their own!  
This year we want to give away 25,000!

Changing our student's mindsets sets off a chain reaction that touches the whole community!

# Thank you!

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