



**Bringing Your Curriculum to Life  
with Food and Gardens**

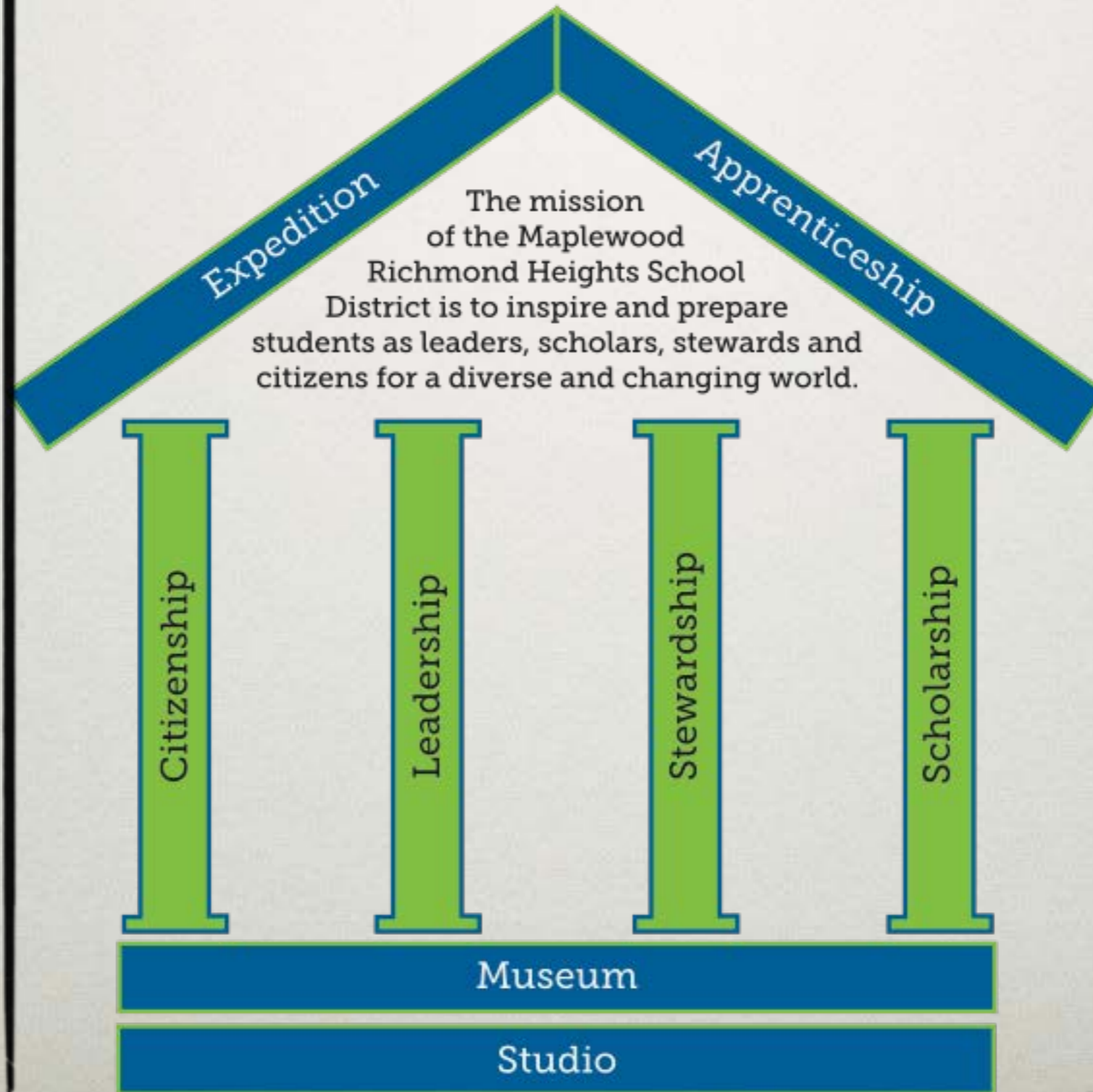


# Maplewood Richmond Heights Middle School





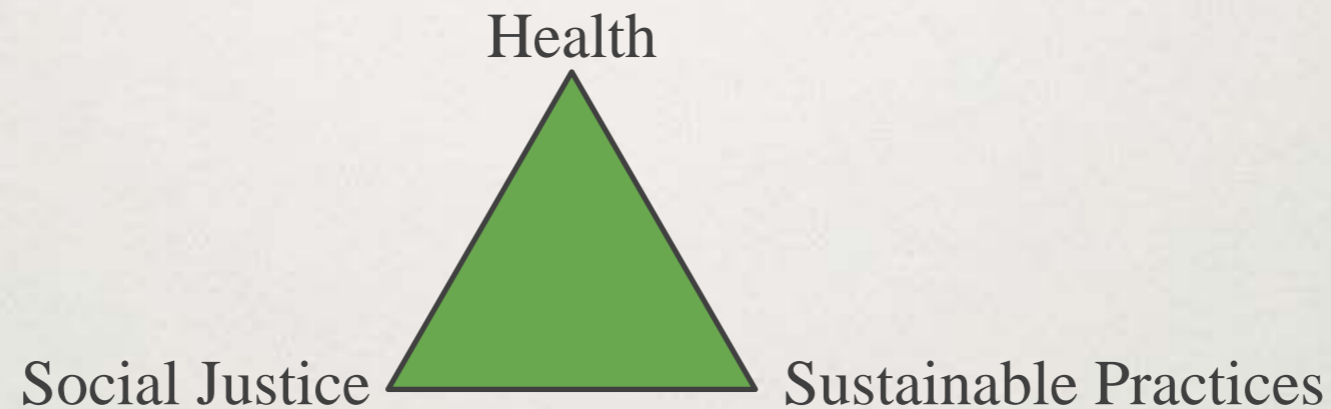
## Ensuring Educational Equity and Excellence



# Seed to Table Curriculum

## Mission:

Growing global citizens committed to building a healthy sustainable future for all.



## Themes:

- Organic gardening
- Culinary arts
- Nutrition
- Animal care
- Environmental Stewardship
- Economics
- Sense of Place
- Equity
- Diversity and interdependence
- Systems and change

# Gardens



- Gardens at all campuses
- Incorporated into K-8 curriculum
- High school apprenticeship option



# Curriculum Integration



- Cross-curricular, project-based learning
- Integration into all subject areas: science, math, social studies, communication arts, Spanish, art, health, technology, and sustainability
- Shared use of teen kitchen

# Pollinator Study

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## Data collection and analysis project

- Study long term changes in pollinator populations, relationships between plant and pollinator species, and the effect of abiotic variables on pollination activities
- Contemplative process
- Application of Data
- Real world science - colony collapse disorder, pollinator interactions and biodiversity
- Novel findings

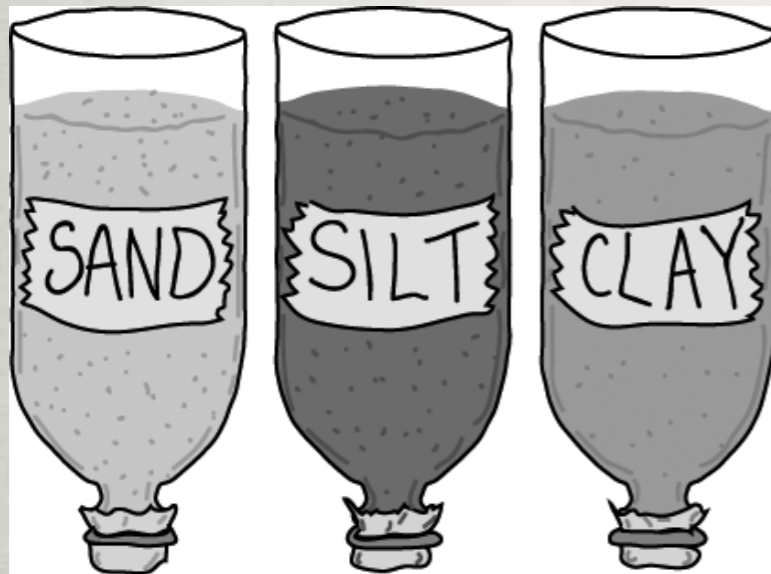
# Soil Food Web



- Food web interactions
- Decomposition cycle
- Primary decomposers: the FBI
- Soil invertebrate census
- Making compost
- Soil ecosystem card game

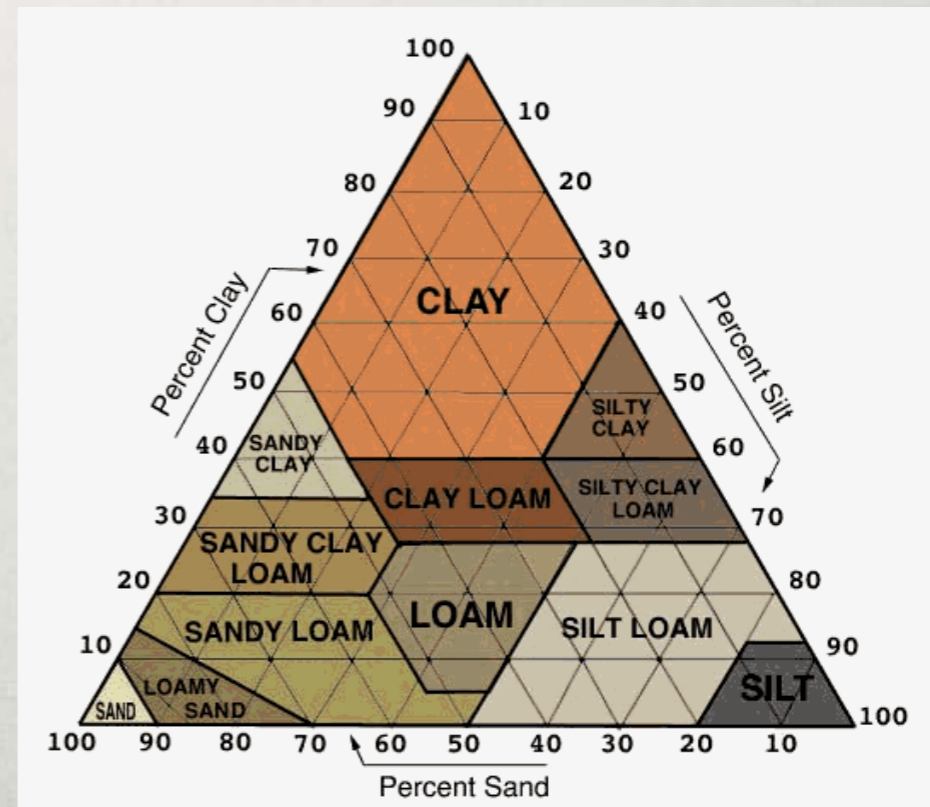
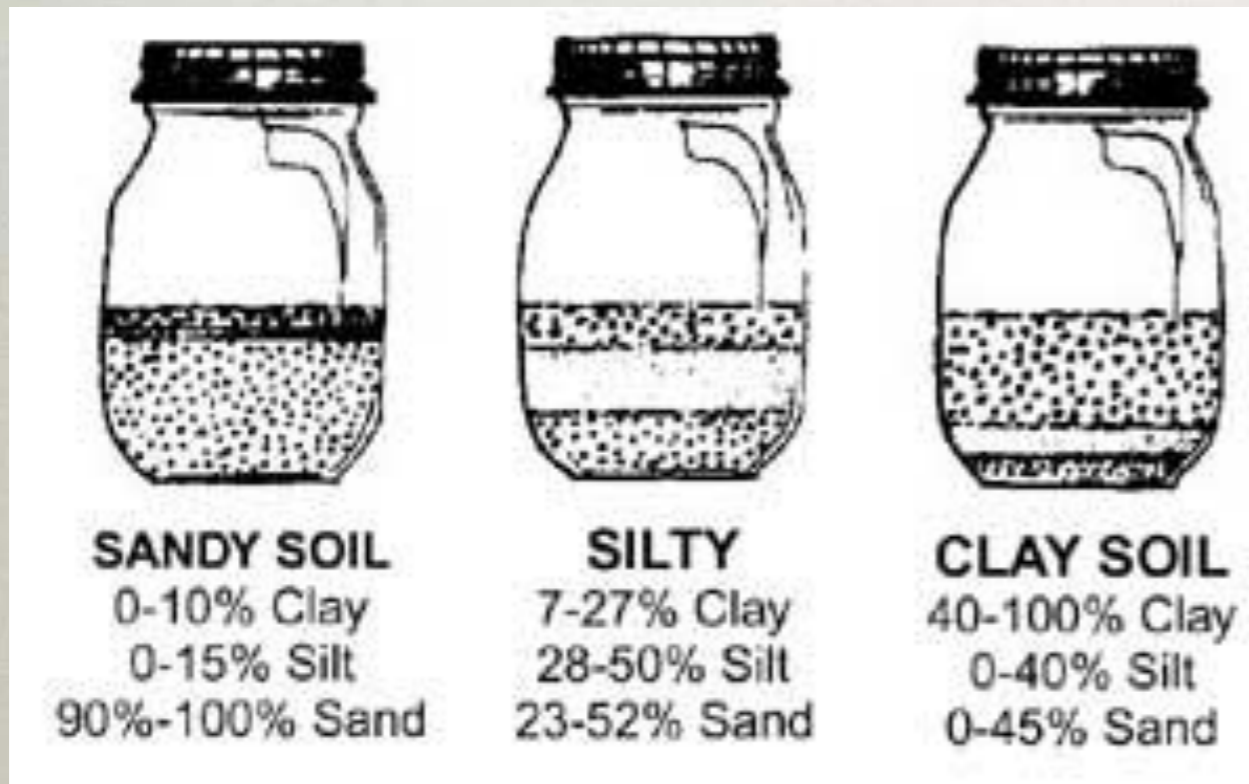


# Classic Soil Science: Water and Mineral Cycles



**Drainage Races** (from Edible Schoolyard's *Making Math Delicious* Grade 7 pdf)

- How does particle size affect percolation?
- Calculate liters per second



**Jar tests** help us determine what type of soil we have and give us practice calculating percentages. We use USDA's Web Soil Survey to check our work.

# Garden Geometry

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Problem: Is the capacity of our compost bin enough to generate compost to cover all beds to a depth of one inch?

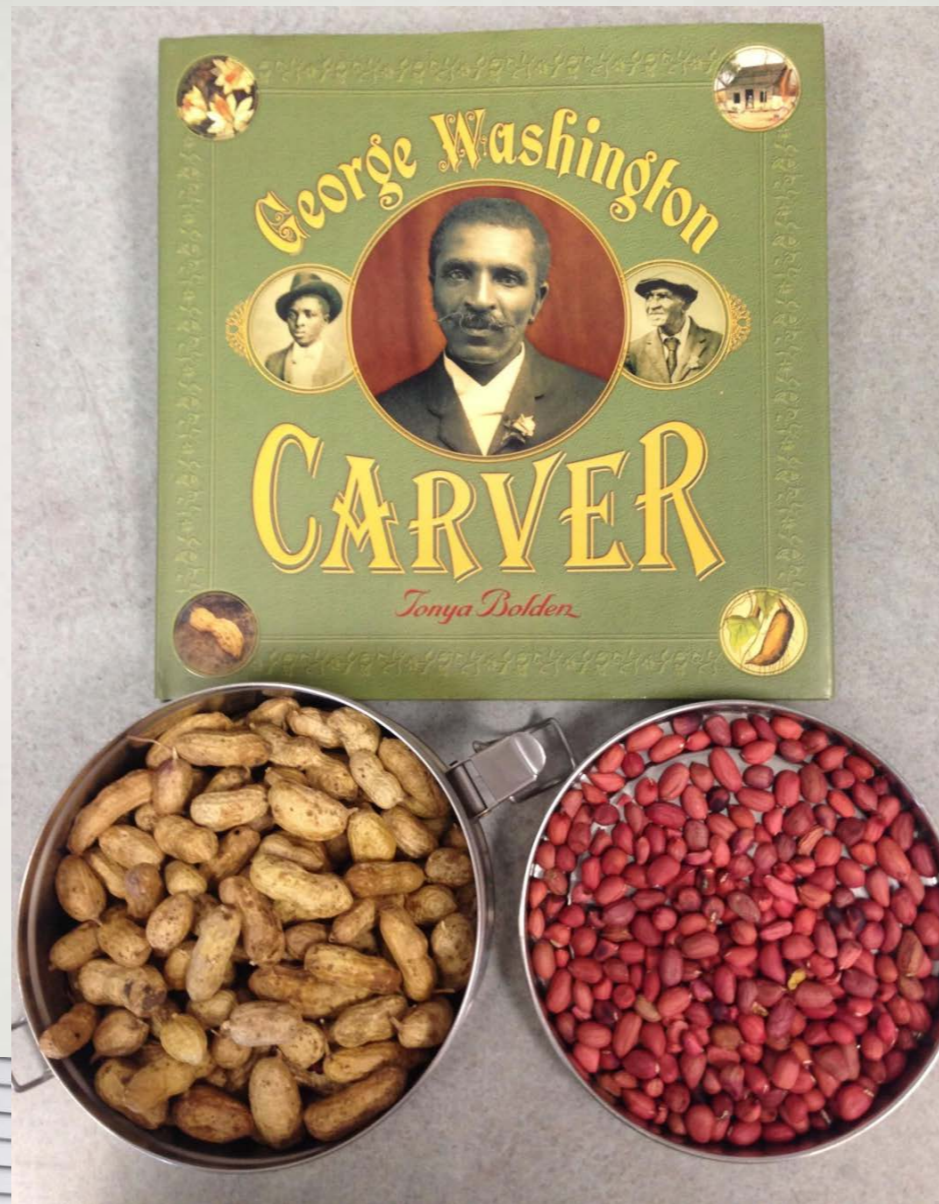


Problem: How many kale plants can we fit into a bed if they must be spaced 1 foot apart?

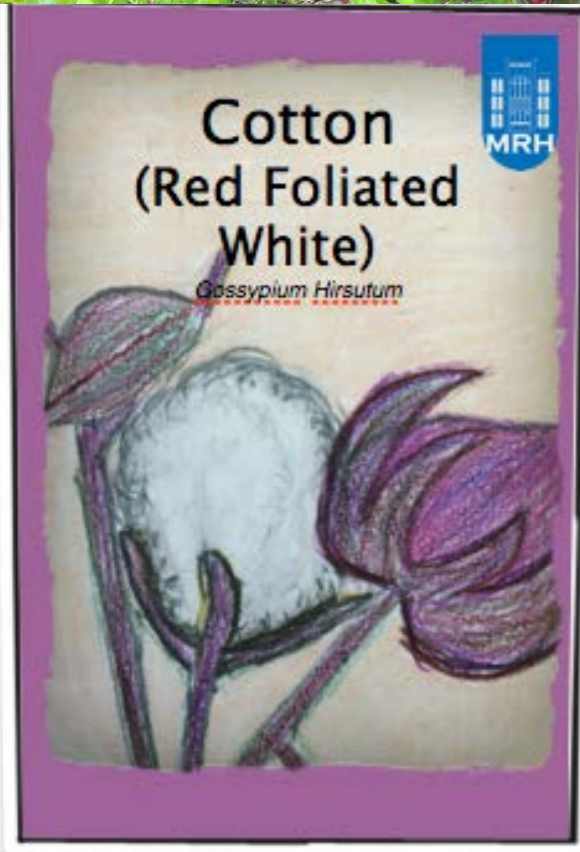
# Geography of Plants: Native American Agriculture



# Carver Gardens: Introduction to World Problems



# Cotton: history, art, and economics



Red Foliated White Cotton is a cotton plant variation that has dark red-violet leaves, stems, and flowers, but then white cotton. Grows well in containers and in flower beds. When it first grows it will appear green but will soon turn to its actual red-violet color.

Planting: Start seeds in pots indoors 1 inch deep. It takes 7-21 days to germinate. You should plant 4-8 week old plants after the last frost. Plant the seedlings 18-30 inches apart from each other. It takes 120 days until harvest of cotton.

This packet was made in October of 2013 and includes \_\_\_\_ seeds.

Blue Devil Keychains  
\$2.00



Made by MRH 8th Grade Students

# All About Seeds

Eighth grade students save seeds from our gardens each year.

- *Seed Folks and Good Food Revolution* book study
- Technical botanical drawings
- Research growing information
- Enumerate seeds and extrapolate potential production (Billions!)
- Test effect of cell phone radiation on seeds.
- Grow MO Seed Library started by gifted class



# Technology classes



Maplewood Richmond Heights School District

**HOME**

ABOUT

SEED CATALOG

RULES

EMAIL US

FURTHER INFORMATION

A close-up photograph of several bright red tomatoes on a green vine, with water droplets on the leaves and fruit. The tomatoes are the central focus of the image.

***Grow Mo Seed Library***

<http://growmoseedlibrary.weebly.com/>

# Health and Lifetime Fitness

- Garden cycle started by St. Louis University nutrition and dietetics master degree interns, with 4 monthly visits.
- Incorporated into PE/Health class.
- Spring of 7th grade, students start seeds, plant, weed, and mulch.
- 8th grade students harvest in the fall, have cooking lessons, and begin their nutrition unit in health.
- Over the winter, they study and compare food systems and save seeds.
- Food system expeditions include: Soulard Market, Whole Foods Market, and City Greens Market.





# Spanish



# Sustainability Elective

- Use systems thinking to approach and explore global sustainability issues
- Students engage with special projects, such as:
  - Green Schools Quest
  - Rain garden
  - New initiatives!



# Urban Farmers Club



Middle school club meets weekly during the school year to take care of the garden and chickens. They they can take home produce and decide what to do with the excess.



# High School Apprenticeship: growing entrepreneurs



# Flower Business

- Flowers sold at farmers market booth, wholesale to florists, and bouquets to school staff totaled \$934.
- Project credit for entrepreneurship class.
- Proceeds covered new harvest station.



# Community Connections



# Chickenology



← Eggs → Chicks → Community →





# BLUE DEVIL BEES

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Middle School Bee Hive

# Blue Devil Bees

- Outdoor Hive
- Indoor Exhibit
- Make Products
- Sell/ Market Products



## More than just honey: Middle School discovers sustainability practices with beekeeping club

Posted on October 18, 2012 by [megan.owens@students.mrhschools.net](mailto:megan.owens@students.mrhschools.net)  
Story by: Janai Robinson

They've seeded our gardens, assisted our lunches, taught us in class, and even created a small partnership with the district. They aren't students at bees. For the past four little helpers have made impact in the MRH School beekeepers and teachers e and Kay Burbank say friends are widely used in

an urban school district, ns we don't have a lot of ortunities," said Henske. ee yard here, as you can es students an opportunity and experience working als; they get first hand



# Questions and Contact Information



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Follow us on Facebook: Seed to Table at MRH School District