

K-2 Gardening Unit Roadmap: Plainfield School, Spring 2017

Teacher names: Kathleen Maslan and Laura Knight

Unit title: K-2 Multi-Age Gardening

Grade Level: K-2

Overall Goals of this Unit:

- Foster excitement about gardening and growing
- Heighten awareness of where food comes from
- Heighten awareness and appreciation of the processes going on in a garden (e.g., decomposition, germination, pollination)
- Foster a sense of cooperation and collaboration among students and staff across the grades K-2

Length of Unit/Timeline: 5-6 weeks, each week comprised of a 75 minute session (10:15 - 11:30 AM) during which each of the five teachers leads a station. Multi-age student groups rotate through the 5 stations over the course of this 5-week unit. (The 6th week was built in as a makeup session.)

The Five Stations:

1. The Germinators (The Germination Station) - Jen Lizotte

- a. Learn about and observe germination
 - i. Dissect a soaked lima bean
 - ii. Each student starts a ziplock "garden" (2 bean seeds & a moist paper towel). Student decides when to take it home. Meanwhile it hangs on their classroom window for observation.
 - iii. Read If You Plant a Seed by Gail Gibbons
- b. Plant seeds for garden plants, a different species each week (pumpkins, beans, sunflowers, corn) 1M gardeners to tend

2. Garden Gladiators (Garden Preparation Station) - Kathleen Maslan

What is growing in our garden in early spring? (bulbs we planted in the fall)
3 stations each week/ 3 adults:

Week 1: weed and mulch, plant beet and carrot seeds, fill raised bed with soil.

Week 2: weed and mulch, plant onion sets, fill raised bed w/ soil.

Week 3: weed and mulch, plant potatoes, fill raised bed w/ soil

Week 4: plant Brussel Sprouts, kale seedlings, parsley, basil, fill raised bed w/soil

Week 5: plant peppers, tomatoes, sunflowers

Extra week: plant two "3 Sisters" Gardens, (Corn seeds, pumpkin, soldier bean seedlings) grade 1M & 7th

3. Worm Wizards (The Decomposition Station) - Mark Woodcock

How do worms create healthy soils for growing plants?

- a. Learn how worms turn food scraps into soil
- b. Learn the anatomy of worms, observe captured specimens
- c. create a mini worm farm with night crawlers

- d. Learn the song “Wiggling Worms”, by Patty Zeitlin
- e. Read The Chicken and the Worm

4. Soil Scientists (Sleuths) (The Soil Composition Station) - Conrad L'Heureux

What are the properties of healthy soil to support growth?

- a. Learn about the various layers of soil. Closely observe and compare soil samples from garden and pollinator area.
- b. Using a recipe, make soil mixture to be used in the garden's new raised bed
- c. Experiment with various soils and ability to drain water (permeation) sand, humus and clay
- d. Read Dirt to students and discuss, list vocabulary

5. The Pollination Station - Laura Knight

- a. Build awareness of the importance of pollinators (Who are they? What do they do? Why do garden plants need them? What human foods depend on pollination?)
 - i. Using the book, What's in the Garden?, solve select riddles about some of the many foods that would not develop each season without pollination and match them with grocery store items on display (applesauce, blueberry fruit spread, pickles, & canned pumpkin).
 - ii. Using a flower structure poster as a guide, arrange props and student volunteers to build a flower model and act out the pollination process with a bee stick puppet.
- b. Work on establishing a pollinator garden. For 4 weeks this involved cutting aspen saplings to stop the ecological succession of our field site toward forest. On the 5th week, it involved transplanting seedlings of native pollinators provided by Upper Valley Pollinator Partners and cared for by volunteer, Betsy Rybeck Lynd.

Vocabulary:

decompose, digest, castings, setae, stomach, heart,
germinate, sprout, seed coat, roots, stem, leaf
pollen, transport, pistil, anther, ovary, stamen, pollination
loam, sand, compost, gravel, clay, permeate, compact, drain, ratio
weed, aerate, mulch, compaction, thin seedlings, companion plants

Resources (books and websites):

- Growing Up Wild
- Project Seasons
- kidsgardening.org
- The Chicken and the Worm, by Page Brier
- Dirt: The Scoop on Soil, by Natalie Rosinsky
- Growing Vegetable Soup, by Lois Ehlert
- Sip, Pick, & Pack: How Pollinators Help Plants Make Seeds by Polly W. Cheney
- What's in the Garden? by Marianne Berkes
- A variety of other gardening books from library (to put in each classroom)

Human Resources:

- Upper Valley Farm to School
- Upper Valley Pollinator Partners
- Jim McCracken
- Lionel Chute and Dawn Dextraze, Sullivan County Dept. of Natural Resources
- Betsy Rybeck Lynd, caretaker of seedlings until planting time
- Community Volunteers: Steve Beaupre, Betsy Rybeck Lynd
- Weekly Parent Volunteers: Melissa Balch, Vicki Ramos-Glew, BettyAnn Heistad, Dorian Ford
- Weekly Write-Ups for School Newsletter: Vicki Ramos-Glew

Jen Lizotte	Kathleen-garden	Woodie	Conrad	Laura-Woods	Week 1- 4/28
Conrad	Woodie	Jen L.	Laura-woods	Kathleen	Week 2- 5/5
Laura	Jen	Conrad	Kathleen	Woodie	Week 3- 5/12
Kathleen-garden	Conrad	Laura	Woodie	Jen L.	Week 4- 5/19
Woodie	Laura-woods	Kathleen-garden	Jen	Conrad	Week 5- 5/26