



Building a School Garden into the Curriculum

School Themes and Activities

- ❖ Art in the Garden
- ❖ Physical Activity
- ❖ Cooperation and community development
- ❖ Social emotional health and wellness
- ❖ Food and Nutrition
- ❖ Wildlife and Habitat Restoration
- ❖ Curriculum Integration



Physical Activity Health and Wellness

- ❖ Meet with your School Wellness Committee
- ❖ Review School Wellness Policy
- ❖ P.E: (Develop a Ropes Course, Wear Pedometers, Gardening Activities)
- ❖ Yoga in the Garden (mountain pose, butterfly, tree pose and more)
- ❖ Activity: Model the life cycle of the Plants (stretching)



Year Round Garden Art

- ❖ After School Programs (Durango Arts Center, Dirt Club)
- ❖ School Art Program
- ❖ Projects: Peace Pole, Batik Flags, Handmade Signs and Markers, Murals, and More!
- ❖ Invite a Guest Artist into the Garden for Mural and Design Planning



GARDEN ART

Cooperation and Community Development

- ❖ Share the Harvest
- ❖ Share the Design
- ❖ Share the Load
- ❖ Working towards Consensus



Social Emotional Health and Wellness

- ❖ Horticultural Therapy
- ❖ “The attitude adjuster”
- ❖ Reciprocity
- ❖ Green Thumb Club



Food and Nutrition

- ❖ Invite a local dietician
- ❖ Activity: Make Garden Labels: with food nutrition facts
- ❖ Activity: What’s for Lunch: edible plant parts?
- ❖ Activity: A Local Food Pyramid
- ❖ Know Your Farmer; Know Your Food
- ❖ School Lunch, snacks, and more

Local Food Connections

- ❖ Participate in Farm Tours
- ❖ Invite Agricultural Speakers
- ❖ Visit Local Farmers Markets
- ❖ Explore community food security?
- ❖ Explore community food systems?



Tour Information

May through October! Can accommodate 10-20 students, tour can be done in 45-60 minutes.

Location

Linnaea Farms is located in the Animas Valley on 2 acres on CR 250.

Primary Crops

Linnaea grows specialty cut flowers and raises Nubian goats to make farmstead goat cheese. Cheeses include feta, chèvre, and farmstead cheese.

View on Local Agriculture

Linnaea Farms is a small acreage family farm in the Animas Valley. We believe local agriculture provides sustainable food products and choices as well as provide educational opportunities for the consumer and youth through sustainable agriculture and understanding where our food comes from.

Youth Activities

Linnaea Farms is a working farm with goats and agriculture on site. When students visit they will have an opportunity to interact with goats, and observe animal husbandry, goat milking, cheese making, and testing and get a sense of sustainable growing methods. Classes that visit in May will have the chance to meet young goat kids, newly born baby goats.



Linnaea Farm

www.LinnaeaFarm.com
CheeseandFlowers@LinnaeaFarm.com
(970) 946.2712 ** 2914 CR 250 Durango, CO 81302
BIOGRAPHY

Linnaea farm has been growing cut flowers since 2003 and producing farmstead goat cheese since 2007. Our goal is to artfully produce quality flowers and exceptional goat cheese which become a recognized part of the local economy. We keep only a small number of Nubian goats, which allows us to treat them as members

Wildlife and Habitat Restoration

- ❖ Schoolyard Habitats
- ❖ National Wildlife Federation
- ❖ Colorado Division of Wildlife
- ❖ Theme Gardens
- ❖ Biodiversity in the Garden



Curriculum Integration

- ❖ Science
- ❖ Math
- ❖ History
- ❖ English and Language
- ❖ Culture
- ❖ Horticulture

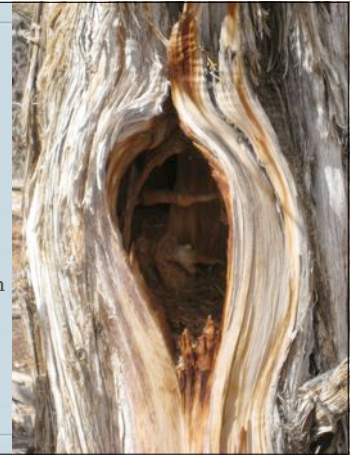
History and Culture

- CO History and the Cultural Uses of Plants
- US History and the Culture and Folklore of Plants
- Native American Gardening Practices (3 Sisters Gardens)
- Other Cultural Gardens



Math

- ❖ Measuring Growth
- ❖ Measuring Garden Space, Volume (soil)
- ❖ Mapping the Garden
- ❖ Computing Sales from a Greenhouse



Reading and Writing

- ❖ Poetry
- ❖ Storytelling
- ❖ Journals
- ❖ Latin Plant Names



SCIENCE



SCIENCE

- ❖ Kindergarten: Living vs. Non living, Trees, and the 5 Senses
- ❖ 1st Grade: Plants and Soil (seeds, soil, decomposition)
- ❖ 2nd Grade: Habitats, Birds, Bees, Butterflies (symbiotic relationships)
- ❖ 3rd Grade: Weather, Recycling, Rocks
- ❖ 4th Grade: decomposition, worm composting
- ❖ 5th Grade: Food Pyramid, Biodiversity, Nutrition, and our affect on the environment

Lesson Plans

ACTIVITY 1.6 Beyond Seed: Plant Propagation for Houseplants or Fruits or Vegetables

Overview: This lesson discusses the parts of the plant and the various methods of propagation. This lesson can be done with great detail and explanation or modified to work with younger grade levels.

Lesson Background: Plants propagate using several methods and through different plant parts. Some of these methods of propagation happen naturally and others require intervention. The various methods and instructions are discussed in greater detail below.

Fruits and vegetables can be used in many forms to propagate. Beets, Potatoes, Sweet Potatoes, Carrots, Avocado Pits, Citrus Seeds, and Onions can all be used. This modification to the lesson will provide a lot of intrigue, humor and interesting results!

Preparation: Obtain plants and supplies. Plants using root propagation should be rooted in water approximately one week before lesson plan. Place plants out of direct sun during root propagation.

Day of Lesson: Use up to 5 workstations and label stations by type of propagation.
Prepare Soil Using *Lesson Plan: Making Homemade Potting Soil*

Plantlets: Aloe, Spider or Airplane Plant, Piggyback Plant
Seeds: Veggies: Avocado Pits, Citrus Seed

Instructions:

1. Discuss the different parts of the plant using live plants and/or a plant diagram.

Set up 5 stations or tables: labeled: Stems and Roots, Leaves, Plantlets, Division and Seed Propagation. Place plants by the appropriate

Grade Levels: 1st Grade and Beyond (1st Grade Science Standard)

Duration: 60 minutes

Objective: Students will learn about plant parts and propagation. The lesson emphasizes that plants have many other methods of reproducing beyond seeds.

Materials:

- Potting Soil
- Plants for Propagation
- Signs for Plant Parts: Roots, Stems, Leaves, Plantlets, and Seeds
- Rooting Hormone
- Pots for New Plants

ACTIVITY: Building a Lasagna Garden/Sheet Composting

Overview: Soil Lasagna gardens teach students about soil composition and decomposition. Soil lasagna gardens also save time tilling garden beds and add necessary nutrients to the soil.

Lesson Background: Sheet Composting is a method of spreading organic matter over the soil and allowing it to compost where it sits. Waiting several weeks or months allows it to decompose, saving time tilling the beds in the spring. When starting sheet composting projects with students, we refer to it as making "soil lasagna." A sheet composted garden prevents weeds from growing (by blocking out light), provides rich organic soil (by adding compost and organic material) and saves time (by letting the lasagna do the work). Overall there is less digging, less weeding and a rich soil full of earthworms.

Cardboard and newspaper serve as a carbon input and are beneficial by blocking out sunlight and killing existing weeds or grass. The cardboard also provides a moist, dark habitat for worms. Worms and their eggs can live in the soil for several years waiting for the right moisture, food, and habitat to begin its life cycle again.

Compost is necessary to provide the right amount of "green" or nitrogen to your soil. You can use green materials, such as kitchen waste, manures (fresh or old), and green

Time of Year: Fall for spring planting

Grade Level: Pre K and Beyond

Objectives: Students will learn about decomposition, soil composition and plant nutrition.

Duration: 30- 60 minutes (depends on size of the garden)

Materials:

- Cardboard
- Mulch (grass clipping, straw or hay, leaf litter)
- Compost (garden compost, manure, soil amendments, kitchen water, plant materials)

❖ Activity 1.7 Local Food Pyramid

❖ **Overview:** Students will explore their school garden and research/interview local producers (farmers, ranchers, value added producers) to find out if they can reach a balanced, local diet according to the food pyramid.

❖ **Lesson Background:** The food pyramid is one example of how to eat a nutritionally balanced diet. The Food Guide Pyramid illustrates the research-based guide to daily food choices developed by the USDA. The Pyramid is an outline of what to eat each day. It's not a rigid prescription, but a general guide that lets you choose a healthful diet that's right for you. There are many different recommendations on how to lead a healthy, balanced life, which includes both eating well and exercising.

Grade: 5th Grade & Beyond

Objectives: 1) To incorporate and create awareness around healthy nutrition in student's daily lives, 2) to understand a balanced, nutritional diet that follows the food pyramid, and 3) to develop an awareness around local food options.

Time: 3-4 class periods of 45 minutes

Materials: Food Journal Worksheet, Posters, Markers, Blank Food Pyramid Worksheet, List of local producers

Evaluation

- ❖ 1. What did you enjoy most about today's training?
- ❖ 2. If we had more time, what would you like to have covered?
3. How can The Garden Project and other Local Resources help your school program?
- ❖ 4. How will you use the information you learned today? (at existing school garden program, new startup, to volunteer, etc.)