

NATIONAL
FARM to
SCHOOL
MONTH



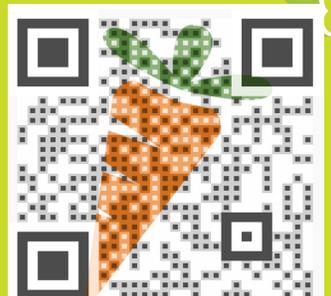
Farm to School Month – October 2013

Teacher Toolkit

Gallatin Valley Farm to School



www.gvfarmtoschool.org



Gallatin Valley Farm to School (GVF2S) has compiled the following activities and resources to help you showcase Farm to School Month while teaching children about nutrition, agriculture, and health in a fun and delicious way! We are a Bozeman-based nonprofit organization that connects schools and farmers in the Gallatin Valley. This toolkit can be downloaded online at: <http://gvfarmtoschool.org/farm-to-school-month-2013/>



Big thanks!

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Jill McIntyre
Appalachian Sustainable Agriculture Project
Food Share
Garden City Harvest

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CELEBRATE

Farm to School Month

October is Farm to School Month



In November 2010, Congress approved a resolution introduced by Representative Rush Holt (NJ) to officially designate October as National Farm to School Month, demonstrating the growing importance and role of Farm to School programs as a means to improve child nutrition, support local economies and educate children about the origins of food. To celebrate National Farm to School Month, schools across the country will be inviting farmers and chefs to visit their school during the month of October.

More information about Farm to School Month including ideas, posters, and resources are available online at www.farmtoschoolmonth.org or www.gvfarmtoschool.org.

In Bozeman and the Gallatin Valley

- Come celebrate with Gallatin Valley Farm to School at the **Farm to School Festival and Chef Cook-off on October 13, 2013** from 2:00pm-5:00pm at Rocky Creek Farm in Bozeman. Bring the whole family to feast on delicious local foods, put your vote in for the Chef Cook-off, explore Rocky Creek Farm, enjoy live music, and more! More information and chef registration at: www.gvfarmtoschool.org.
- Grab a locally or regionally grown apple and join students statewide in a collective crunch in celebration of Food Day on October 24 at exactly 2:00pm. For more information about **Montana Crunch Time**, including a guide for schools, visit www.opi.mt.gov/Farm2School. Be sure to share your *crunch byte* (video, photos, and audio are all welcome)!
- Enjoy incredible local food while celebrating National Food Day at Gallatin Valley Farm to School's **Food Day Fundraising Dinner on October 24**. Chef Melissa Harrison, Seasonal Bozeman, will offer a three-course farm to table dinner and wine tasting, beginning with socializing and appetizers at 6:30pm at Nova Café. Tickets are available for purchase online www.seasonalbozeman.com or phone (303) 319-4354.

- Bozeman School District will be serving up **Montana Meals** every Wednesday in October. Consider discussing what is local in the meals or plan an activity that incorporates those foods with your class. The menu is available online at: http://www.bsd7.org/district/departments/food_services/lunch.php. Not in the Bozeman School District? No problem! Check out recommendations from Montana Team Nutrition Program at www.opi.mt.gov/Farm2School or contact Gallatin Valley Farm to School for assistance.



- Participate in the **Gallatin Valley Farm to School Month Poster Contest!** One winning poster will be selected from each participating elementary school as well as an overall Grand Prize. Eligible entries must be postmarked by October 31, 2013. Registration form included in Appendix. More information at www.gvfarmtoschool.org.

Farm to School Month Resources

- Check out the **official** National Farm to School Month website www.farmtoschoolmonth.org to get ideas, download the communications toolkit, shop for Farm to School Month posters, aprons, and more!
- Celebrate everyday with the Farm to School Month **Theme of the Day Calendar** included in appendix.
- Get ideas and find resources for Farm to School Month by watching the Celebrate Montana Farm to School Month **archived webinar** hosted by Montana Rural Health Initiative October, 2012. <http://healthinfo.montana.edu/RHI%20Webinars.html>
- Celebrate **Food Day** on October 24, 2012. Event kits and school curriculum resources are available at www.foodday.org.
- **Montanans celebrate Farm to School Month!** Information and school recipes at <http://opi.mt.gov/Farm2School>.

General Farm to School Resources

- Gallatin Valley Farm to School www.gvfarmtoschool.org
- Montana Team Nutrition Program <http://www.opi.mt.gov/Farm2School>
- Montana Farm to Cafeteria Network <http://farmtocafeteria.ncat.org/>
- National Farm to School Network www.farmtoschool.org

Farm to School Library Collection

Gallatin Valley Farm to School donated the following materials to the Bozeman School District Media Center. All materials are available free-of-charge to teachers within the district, teachers in other districts, and community members. To access the Farm to School library collection, visit <http://library.bsd7.org/> or contact the District Media Center at (406) 522-6046.

Print Materials:

- *Botany On Your Plate: Investigating The Plants We Eat.* Barrett, Katharine D. Burlington, VT : National Gardening Association, 2008. (Grades K-4)
- *Choice, Control & Change: Using Science To Make Food & Activity Decisions.* Koch, Pamela A. South Burlington, VT : National Gardening Association, 2010. (Grades 5-6)
- *Farm To Table & Beyond.* Koch, Pamela A. South Burlington, VT : National Gardening Association, c2008. (Grades 5-6)
- *French Fries And The Food System: A Year-Round Curriculum Connecting Youth With Farming And Food.* Coblyn, Sara. Lincoln, MA: The Food Project, Inc., 2002. Updated and tested activities for engaging teenagers from intensely varied backgrounds with agriculture and food systems. Lessons range from practical, hands-on activities designed to give the young person a complete introduction to the operations of a farm and garden to the social economic aspects of the food system. (Grades K-12)
- *The Growing Classroom: Garden-Based Science.* Jaffe, Roberta. [New ed.]. South Burlington, VT : National Gardening Association, c2007. The Growing Classroom provides activities for teaching science, environmental awareness, and nutrition in an outdoor living laboratory as well as in a classroom setting. The combination of direct observation and experimentation in the garden laboratory and focused lessons on specific topics is the core of Life Lab. (Grades K-6)
- *Growing Food.* Koch, Pamela A. New York : Teachers College, Columbia University, c2007. Human impact on the natural world is expected to increase as human populations grow and as science and technology develop ever more sophisticated ways to manage the natural world to meet human desires more effectively. Today's children, as tomorrow's adults, need solid understanding of science concepts and skills to engage in scientific discussions and to participate in public debate about important issues that involve science and technology. (Grades 4-6)

- *GrowLab: A Complete Guide To Gardening In The Classroom.* Pranis, Eve. 2nd ed. South Burlington, VT : National Gardening Association, c2006. (Grades K-8)
- *Growlab: Activities For Growing Minds.* Pranis, Eve. 2nd ed. Burlington, VT : National Gardening Association, c2009. (Grades K-8)
- *How To Grow A School Garden: A Complete Guide For Parents And Teachers.* Bucklin-Sporer, Arden. Portland, Or. : Timber Press, 2010. A comprehensive guide to planning and creating a school garden and helping students understand the importance of good nutrition and health.
- *In The Three Sisters Garden.* Dennee, JoAnne. Dubuque, Iowa : Kendall/Hunt Pub. Co., c1996.
- *Literature In The Garden.* Bryan, Tex. : Texas Agrilife Extension Service, c2005. Engage children through powerful garden and ecology themed books. Inspire learning through outdoor activities, creative expression and open exploration; helps make stories more relevant and exciting!
- *Lunch Lessons: Changing The Way We Feed Our Children.* Cooper, Ann. 1st Collins pbk. ed. New York : Collins, 2007, c2006. Explains the basics of proper childhood nutrition, suggesting various recipes for breakfast, lunch, and snacks; and offers advice to parents and school officials on implementing healthier eating habits for children.
- *Math In The Garden.* Burlington, VT : National Gardening Association, c2006. Gardens are magical settings filled with colorful shapes, delightful aromas, and myriad patterns. Patterns, measurement, comparisons, and problem solving are a few of the mathematics strands embedded in typical gardening activities. Includes suggested age range for each activity and connections to math and science.
- *Nourishing Choices: Implementing Food Education In Classrooms, Cafeterias, And Schoolyards.* Pranis, Eve. South Burlington, VT : National Gardening Association, c2008. Drawing on a wealth of collective experience, "Nourishing Choices" offers a roadmap for developing a food education program and exciting children about healthful eating. (Grades K-12)
- *Schoolyard Mosaics: Designing Gardens And Habitats.* Pranis, Eve. Burlington, VT : National Gardening Association, c2002.
- *What's On Your Plate?: The Film About Kids And Food Politics.* Gund, Catherine. Oley, PA: Bullfrogfilms.com, 2009. DVD and curriculum guide. (Grades 6-8)

Films:

- *What's on Your Plate?* - Also has separate teaching models that fit within class periods and match the curriculum guide activities)
- *Nourish* - Includes 54 bite-sized videos about the story of your food, featuring Michael Pollan, Jamie Oliver, and other voices from the food movement.

Short Videos

Have access to the internet? Pull up one of these short videos to watch and discuss with your students.

- *Bozeman Eats* – An exploration of the Bozeman area food system. (20 minutes)
<https://vimeo.com/40781403>
- *Carrots Farm to Fork: Meet California Farmer Matthew Martin* – (9 minutes 39 seconds) <http://www.youtube.com/watch?v=RTNuOpIALDQ>
- *Grow Your Own Food – Missoula Coyote Choir (K-5)* – (3 minutes 50 seconds) A fun musical tribute to the benefits of growing and eating healthy food.
http://www.youtube.com/watch?v=d1Gm6F_8pJg
- *Farm to School Elementary Economics (K-5)* – (1 min 19 seconds)
http://www.youtube.com/watch?v=wt_KMFARwLo
- *Montana Beef to School* – (7 min 29 seconds). Provides a peek into how and why Montana schools are serving local beef in school meals.
<https://vimeo.com/72750719>
- *National Farm to School Network (K-5)* – (3 min 11 seconds). From the kids' point of view, this short entertaining video provides the what, why, how, and who of Farm to School.
<http://www.youtube.com/watch?v=ayvdX9s1mxw&feature=related>

Music

- *Dirt Made My Lunch* by The Banana Slug String Band
<http://www.bananaslugstringband.com/>
- *Six Plant Parts* by Mary Miche
<http://www.marymiche.com/>

Books

Gallatin Valley Farm to School recommends the following reading materials to enhance farm to school curriculum and discussion in the elementary classroom.

Kindergarten

- Pumpkin Circle: The Story of a Garden by George Levenson
- Eating the Alphabet: Fruits and Vegetables from A to Z by Lois Ehlert
- Growing Vegetable Soup by Lois Ehlert
- The Very Tiny Seed by Eric Carle
- The Garden That We Grew by Joan Holub

Grades 1st and 2nd

- The Giant Carrot by Jan Peck
- The Henhouse by Carol Shorey Dean
- The Year at Maple Hill Farm by Alice Provensen
- Century Farm: One Hundred Years On A Family Farm by Cris Peterson

Grades 3rd - 5th

- Growing Seasons by Elsie Lee Splear
- Life on a Cattle Ranch by Judy Wolfman
- Winter Wheat by Brenda Guiberson
- Our Farm: Four Seasons With Five Kids On One Family's Farm by Michael Rosen
- Local Farms and Sustainable Foods by Julia Vogel
- Wheat the Golden Harvest by Dorothy Hinshaw Patent

Middle School through Adult

- Bringing it to the Table: On Farming and Food by Wendell Berry
- Harvest for Hope: A Guide to Mindful Eating by Jane Goodall
- In Defense of Food: An Eater's Manifesto by Michael Pollan
- Everything I Want to Do Is Illegal: War Stories from the Local Food Front by Joel Salatin
- Fast Food Nation by Eric Schlosser
- Chew on This: Everything You Don't Want to Know About Fast Food by Eric Schlosser

Curriculum Resources

- *Project Seasons*: Developed at Shelburne Farms, Project Seasons is a collection of hands-on education activities for discovering the wonders of the world. Classroom educators, pre-school & after-school teachers, camp instructors and parents will find it invaluable in cultivating an awareness and appreciation of agriculture and natural resources. Available for purchase at http://store.shelburnefarms.org/product/179/education_resources
- *Kids Cook Farm-Fresh Foods: Seasonal Recipes and Activities*: This thorough toolkit, prepared for and reviewed by the California Dept of Education, includes everything you need to know to help your class prepare and taste easy, seasonal recipes. Printable PDF format: <http://www.cde.ca.gov/ls/nu/he/documents/kidsc ookcomplete.pdf>
- *Agriculture in the Classroom*: Prepared and published by the USDA, this website includes easy lesson plans for all grade levels, state-by-state agricultural facts, quizzes, and virtual ag “tours.” <http://www.agclassroom.org/teacher/index.htm>
- *The Great Garden Detective*: Discover what fruits and vegetables are sweetest, crunchiest, and juiciest through a series of investigations and fun experiences connecting the school garden to the classroom, school cafeteria, and home. This eleven-lesson curriculum for 3rd and 4th grades includes bulletin board materials, veggie dice, fruit and vegetable flash cards, and ten issues of Garden Detective News for parents. <http://teammnutrition.usda.gov/Resources/gardendetector.html>
- *Dig in!* Explore a world of possibilities in the garden and on your plate using ten inquiry-based lessons that engage 5th and 6th graders in growing, harvesting, tasting, and learning about fruits and vegetables. This kit, created by USDA Team Nutrition includes: teacher’s guide, gardening guide, at home parent booklets, six posters, and an Eat Smart To Play Hard with a MyPlate poster. http://teammnutrition.usda.gov/Resources/dig_in.html



Farm Field Trips

Taking students on field trips to farms is a great way to celebrate Farm to School Month. Farm field trips allow students to experience agriculture first-hand, using all their senses. Depending on grade level and topics discussed on the field trip, many education standards can be covered. See below for tips for planning a farm field trip.

Farms List

The following Gallatin Valley farmers are happy to host field trips and/or visit your classroom. Please contact them directly to make specific arrangements.

Amaltheia Dairy – Sue Brown

3380 Penwell Bridge Road, Belgrade MT
(406) 388-5950
Field Trips, Classroom Visits
Notes: Goats, pigs, herbs, vegetables

Townes Harvest Garden –

Chaz Holt

West Garfield off of 19th Avenue, Bozeman MT
charles.holt@montana.edu
Field Trips
Notes: Field trips available May, Sept. and early Oct.

Rocky Creek Farm – Pete Faye

34297 Frontage Road, Bozeman MT
(406) 585-0225
orchardman32@yahoo.com
Field Trips
Notes: U-pick, hayrides, and pumpkin patch

Gallatin Gardeners

West Garfield off of 19th Avenue, Bozeman MT
upldm@montana.edu
Field Trips

Gallatin Valley Botanical – Matt & Jacy Rothschilder

250 Chester Lane, Bozeman MT
(406) 599-2361
Field Trips

Cloud Nine – Allison Rooney

7 Teepee Lane, Wilsall MT
(406) 578-2144
rooneymontana@imt.net
Field Trips (2013), Classroom Visits (Jan-March)

Three Hearts Farm – Dean Williamson

2111 Love Lane, Bozeman
(406) 451-2184
dwilliamsonmt@gmail.com
Field Trips, Classroom Visits

Gallatin Grown- John and Conni Mahoney

5464 Amsterdam Rd
Manhattan, MT 59741
Field Trips, Classroom Visits

Eagle Ridge Ranch – Danielle Fisher

Bozeman, MT
(406) 581-9101
info@eagleridgeranchbeef.com
Classroom Visits

Planning Your Farm Field Trip

Appalachian Sustainable Agriculture Project provided this farm field trip. A full guide and more information are available at www.growing-minds.org.

Guided Questions for Planning Your Trip

Not sure which farm to visit? Here are a few questions to help you choose a farm that fits your classroom and goals. Use the above list to select a few farms to interview and use your responses to the questions below to formulate questions for the farmer.

Initial Questions and Logistics

- How many children will be going on the field trip and what activities does the farm offer?
- How many chaperones do you need?
- Is there anything in particular you want the children to see? A certain agricultural practice or a type of farming or animal?
- What is your budget? How will you fund the field trip?
- How will you integrate the farm trip into your classroom studies?

Travel and Timing

- How far are you willing to travel to a farm?
- How will you travel (carpool, vans, bus)?
- What are the dates being considered for the trip? What you will be able to do and see on the farm will vary widely depending on the season. It is a good idea to have a few dates in mind before contacting the farmer.
- How long would you like to spend at the farm?

Special Accommodations

- Do you have any children in wheelchairs or with other special needs that the farm would need to accommodate?

Preparation

- What will you do in the case of inclement weather? It's a good idea to discuss this with your farmer before the trip.
- Do you have a first aid kit to take with you? Do you have a field trip emergency plan?
- Do you need to get release forms signed?
- Will you take a snack or lunch with you to the farm?

Communicating With Farmers:

Once you have chosen a farm to visit, it is important to establish good communication with the farmer so that you each know what to expect from the field trip. Have a thorough conversation with the farmer and follow up with an email to make sure communication is clear. Clarify the timeframe and logistics of the trip and how you can work together to create hands-on activities. Have the discussion well in advance of the visit so that both of you have time to prepare. Laying out expectations and clarifying details will make field trips run more smoothly and be more enjoyable for everyone involved. Farmers, like teachers, are busy and often hard to reach by phone. Ask the farmer what the best number to reach them is and when the best times are to call.

It is useful to discuss the following issues with the farmer:

- Number of students visiting:** Discuss the number of students the farm can accommodate and if there are any students with special needs.
- Age of students:** Tell the farmer the age of the students so that they can prepare appropriate activities for the age or grade level. Give the farmer an idea of what the students can handle.
- Number of adult chaperones and small groups:** How many adults will need to be present? Often when the students are divided into smaller groups it allows for more hands-on time and it is easier to move around the farm.
- Role of adult chaperones:** Discuss what the expectations and roles are for the adults and how they can help.
- Rules on the farm:** Discuss any rules or guidelines of the farm. Share these with all the adults and students.
- Travel time and directions:** Discuss the length of the visit and how long travel time will be. Make sure you get clear directions from the farmer to pass along to the drivers.
- Parking:** Discuss where the bus or cars can turn around and park.
- Facilities:** Is there a bathroom that groups can use? Is there a clean site for hand washing (mandatory if children are petting animals or eating while on the farm)? Is there a covered space out of the sun and rain?
- Lunch and snacks:** Clarify what the group's needs are for lunch and snacks, and schedule breaks accordingly. Ask if the farmer will offer snacks of fresh produce or farm products.
- Costs:** Farms typically charge per student and/or per adult. Discuss the total costs so that you can arrange for funding for the trip.
- Planned activities:** What activities does the farmer have planned?
- Special interests:** Are there specific interests or curricular goals that you have for this trip? Discuss possible themes or activities that could fit these goals.
- Rain and emergency plan:** Have a plan for rain and emergencies. Make sure there is a first aid kit available.

What to Bring

Ask your students to bring the following:

- Sun hat
- Sturdy shoes (no open toes)
- Water bottle
- Wind parka or rain gear (if rain is likely)
- Notebooks, art paper, pens
- A bag lunch (minimal waste please)
- Layers – children should be prepared for both hot and cool weather.

Teachers should pack:

- First aid kit – including any medications a student might need (for allergies, for example)
- Sunscreen
- Extra water
- Blankets for picnic

Lunch, Water, and Snacks

Encourage reusable containers for the students' lunches to minimize waste, and bring garbage bags to carry your lunch waste out with you. Ask farmers about bathrooms, hand-washing stations, and where the best place would be for the class to eat. Many farms do not have picnic tables, so be prepared to bring blankets for a picnic. Bring water and make sure to double check with farmers that there will be drinking water available for refills. If a farm is able, it is great to have a fresh farm snack for students. When contacting farms, ask about this possibility and make sure to compensate farmers for whatever they provide.

Name Tags

Have your students make nametags so that the farmer, farm staff, and chaperones can easily communicate with them. If everyone (students, teachers, parents, farmer, and chaperones) has nametags, the day will go smoother.

Weather

Be sure students are prepared for all types of weather. Determine if you will schedule a rain day for the visit or cancel the trip altogether. Make sure to determine who is responsible for making calls on the weather: you or the farmer. Advise students to bring a rain jacket if there is a high probability of precipitation.

On-Farm Activities

Farm field trips are opportunities for unique activities for students. It is important to discuss planned activities with the farmer as well as have backup activities to bring along if weather or other unexpected events change the plan.

General Guidelines

- Be flexible** – While it is important to have activities planned throughout the trip, you want to allow for flexibility in your schedule – spend more time on activities that the students are enjoying and move on from activities that students aren’t engaged with. Leave time for play!
- Hands-on activities** – One of the most important aspects of farm field trips is the opportunity for hands-on experiences. Put the students to work and let them get dirty! Explain how each farm activity fits into the bigger picture of farm production and operation. If the students are able to understand the purpose of their work, they will make even stronger connections.

Activity Ideas

- Journals or notebooks** – Having notebooks for each child offers a huge range of options on a field trip, from sketching and observations to data collection or reflection.
- Children’s literature** – A few books that are connected to the trip are worthwhile to haul in your daypack. Reading books can fill in ten minutes while the group waits for an activity to begin or can be stretched to an hour with reflection activities. Consider having the farmer read the book(s) to the group.
- Scavenger hunt or BINGO** – Print copies of the scavenger hunt below and bring brown paper bags for children to use in collecting items. Make a scavenger hunt or farm BINGO specific to the farm you’ll be visiting. What might the students spot on a farm?

Scavenger Hunt

Collect only things that you can handle safely.

- a feather
- 3 different kinds of seeds
- something round
- something beautiful
- something that makes a noise
- something that reminds you of yourself
- something soft
- something that does not belong

Activities

There are many great books, videos, and resources available for Farm to School, school garden, and food and nutrition lessons. Included in the appendix is a sampling of activities to try:

- Quick Garden Activities: These are great activities to have ready when working with groups of students in the garden.
- Making butter: Easy, in-class or take-home activity.
- Grocery Store Botany: A game that teaches kids basic plant parts and to identify and classify plants in everyday foods.
- Tops and Bottoms: A garden and classroom based activity.
- Crockpot Applesauce: Recipe for applesauce with no added sugar.
- Where Does Our Food Come From: An exploration of the process from farm to table.
- Plant Identification Scavenger Hunt: Kids can test their knowledge of what's growing in the garden on the farm.
- Farmer In The Classroom - Montana Storage Vegetables: Activities and information to explore storage vegetables.

Connecting to Common Core

The purpose of Common Core Standards are to provide consistent and clear learning goals for student so that teachers and parents can help them achieve academic success. Common Core Standards are also designed to teach students material that is relevant to the real world. Garden-based learning activities are an excellent way to make connections between the content and real world applications. Many examples have been provided to demonstrate how Common Core Standards can easily be applied to hands-on experiential learning activities.

Each of activities included in this toolkit provide examples of how you can connect to the Common Core.

Reference: Common Core State Standards Initiative (2012). Retrieved from:
<http://www.corestandards.org/>



Appendix

Included in this appendix:

- Theme of the Day Calendar
- Gallatin Valley Farm to School Poster Contest Flier
- Gallatin Valley Farm to School Poster Contest Information & Rules
- Gallatin Valley Farm to School Poster Registration Form
- Activity Lesson Plans

FARM TO SCHOOL MONTH 2013

Theme of the Day Calendar

Use these themes to structure activities, inspire communications and guide your celebration of Farm to School Month!

Monday	Tuesday	Wednesday	Thursday	Friday
	Celebrate Farm to School! Content by NFSN 1	Food/Service Partner: FoodCorps 2	Farm to School Counts Content by NFSN 3	Farm-Based Education Day Partner: Farm-Based Education Network 4
Hunger Awareness Day Partner: Feeding America 7	School Gardens Day Partner: National School Garden Network/EdWeb 8	Public Health Day Partner: APHA 9	USDA Farm to School Census Partner: USDA Farm to School 10	Farm to School Salad Bar Day Partner: Let's Move Salad Bars to Schools 11
Farm to School in Indian Country Partner: First Nations Development Institute 14	Celebrate School Food Service Directors Day Partner: School Meals That Rock/ SNA 15	Farmer Appreciation Day Partner: National Farmers Union 16	Food Hubs Day Partner: Wallace Center 17	Celebrate Farm to Preschool Partner: NFSN Farm to Preschool Subcommittee 18
Food Policy Councils Day Partner: Center for a Livable Future 21	Farmer Resource Day Partner: Farm Aid 22	Youth Empowerment Day Partner: DoSomething.org 23	Food Day Partner: Food Day 24	Gen-O Classroom Connection Partner: Organic Valley 25
Growing with Grandparents Partner: National Foundation to End Senior Hunger 28	After School Programs Day Partner: YMCA 29	Scratch Cooking Day Partner: Culinary Institute of America 30	Coming Together to End Hunger in America Partner: Participant Media 31	 <p>NATIONAL FARM to SCHOOL MONTH More information and resources at FarmtoSchoolMonth.org</p>

Developed by the National Farm to School Network, a project of Tides Center.

Poster Contest Flier



WHO

The contest is open to K – 5th grade children residing or attending school in Gallatin County.

WHEN

Contest entries must be postmarked no later than October 31, 2013.

MORE

For official rules, instructions and registration form:

www.gvfarmtoschool.org
lunchbox@gvfarmtoschool.org

This contest is brought to you by



Thank you to sponsors of Farm to School Month in the Gallatin Valley!

Poster Contest Rules & Information



Gallatin Valley Farm to School Month Poster Contest

Gallatin Valley Farm to School (GVF2S) is delighted to announce its poster contest in celebration of National Farm to School Month.



October is National Farm to School Month. Help spread the word and win fun prizes by creating an inspiring, original poster that expresses the theme "My favorite Montana food".

OFFICIAL RULES & INSTRUCTIONS

Eligibility: The contest is open to kindergarten – 5th grade students residing or attending school in Gallatin County.

Poster Theme/Size Requirements: The poster entry should depict the "MY FAVORITE MONTANA FOOD" theme. Entries must be on 8.5 x 11 inch unlined paper. Only one entry per student. Posters designs must be original artwork created by the student. Copyrighted images or clipart cannot be used. Posters may be created with a variety of media including watercolors, markers, crayons, chalk, photography, and computer graphics.

Submission Instructions: On the back of each entry, write the student's name in ink (no Sharpies or other markers please) and submit with registration form. Registration form is available at gvfarmtoschool.org. Students' contact information will not be released. Student name, grade level, and school will be announced with winning entries. Entries may be mailed individually, or in a group by teachers or other school staff. Mail entries to:

Farm to School Month Poster Contest
c/o Gallatin Valley Farm to School
PO Box 563
Bozeman MT 59771

Usage/Rights: All posters submitted for the 2013 Gallatin County Farm to School Month Poster Contest will become the property of Gallatin Valley Farm to School and can be used for promotional purposes by GVF2S or our select partners.

Poster Contest Rules & Information (page 2)

Timing: Entries may be submitted October 1st-31st. All entries must be postmarked no later than Thursday, October 31, 2013. Winners will be announced by December 1, 2013. Submitting an entry implies you have read and understood these rules and agree to the terms.

Judging Process: One winner will be selected from each grade, one from each participating school and one from all home school entries. One grand prize winner will be selected from all entries. Judges will include Farm to School leaders, educators and artists. The posters will be judged based on the following criteria:

- Expression of the theme – “My Favorite Montana food”
- Creativity and originality
- Visual clarity and appeal – Is the poster easy to read and understand?
- Broad audience appeal and educational value

Prizes: One Grand Prize winner and grade level winners will receive prizes. In addition, winning posters will be displayed around town in December and January. Winners will be announced and recognized on the website of Gallatin Valley Farm to School and in local media. The winning posters will be used in next year’s Farm To School Month celebrations in October 2014 and distributed as promotional materials.

Thank you to our Farm to School Month sponsors!

There’s more Farm to School Month fun! Be sure to check out our events and resources online at gvfarmtoschool.org, such as:

- Farm to School *Feastival* and Cook-off – October 13, 2pm – 5pm – Rocky Creek Farm
- Montana Crunch Time – October 24, 2pm – Statewide
- Food Day Dinner with Seasonal Bozeman – October 24 – Nova Café (tickets required)
- Montana Meals every Wednesday at Bozeman Public Schools

FOR MORE INFORMATION



P.O. Box 563 • Bozeman, MT 59771
lunchbox@gvfarmtoschool.org • (406) 219-1010
www.gvfarmtoschool.org

Poster Contest Registration and Release Form



2013 Farm to School Month Poster Contest *Registration and Release Form*

Mail completed form, along with poster to:

Gallatin Valley Farm to School
PO Box 563
Bozeman MT 59771

For more information, including contest rules:

www.gvfarmtoschool.org
lunchbox@gvfarmtoschool.org
(406) 219-1010

Student Name: _____ Grade: _____

Name of School: _____ (or indicate if home-schooled)

City: _____ Contact Phone Number: _____

Permission to Use Artwork, Student's Name, Grade, and School

I grant to Gallatin Valley Farm to School the right to use artwork submitted in this event and release my (or my child's) name, grade and school in connection with this event. I authorize Gallatin Valley Farm to School, its assigns and transferees to copyright, use and publish the same in print and/or electronically.

I agree that Gallatin Valley Farm to School may use such artwork with or without my name and for any lawful purpose, including, for example, such purposes as publicity, illustration, advertising, and Web content. I have read and understand the above:

Signature _____ Printed name _____

Address _____ Date _____

Signature, parent or guardian _____
(if under age 18)

Printed Name, Parent or guardian _____



Quick Easy Garden Activities

This activity list was provided by Food Share. Check out their Educator Resources for ready to go lesson and unit plans: <http://www.foodshare.net/educator-resources>.

Dried Herbs

1. Harvest a bunch of herbs straight from the garden
2. Tie the bunches with some string
3. Hang upside down from a railing or string in a space with some air flow
4. Herbs are ready when completely dry
5. Store in an air-tight container

Herbalicious Tea Bags

1. Sew a small pouch from clean, un-dyed fabric using a needle and thread, or simply use a square of cheesecloth fabric
2. Place a small amount of the herbs (dried previously) into the pouch, or middle of the cheesecloth square
3. Gather pouch together with some string and tie in a knot
4. You have a tea bag!

Cloth Leaf Pounding (from Shelburne Farms, Project Seasons)

1. Each student will need a patch or square of cheesecloth, a hammer and something to lean on (e.g. piece of old cardboard).
2. Using garden weeds, off cuts or garden scraps, students can "pound" their greenery between folded cheesecloth to create a symmetrical pattern!

Harvest Blanket

1. Using a tablecloth, towel, or blanket, hide various garden produce items, tools or objects underneath.
2. Students need to sit around the blanket and use their sense of touch to guess what it is!

Garden Investigation & Mapping

1. Students can mark out their own small, square space using string and four pencils
2. Students can investigate this small part of the garden, making note of everything that happens inside that space, any insects that fly in or out, anything growing... This is great for creating pictures and poetry later!
3. Students can also create a grid within their square, to draw a to-scale map of their garden section.

Photography

Students can create their own scavenger hunt using close-up photography of leaves, seeds, roots, shoots and fruits!

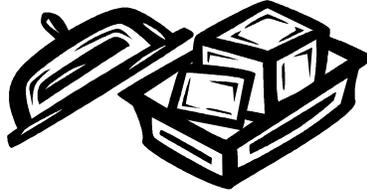
Common Core Connections

Grade 3, Writing

[CCSS.ELA-Literacy.W.3.10](#) Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences

Grade 7, Mathematics

[CCSS.Math.Content.7.G.A.1](#) Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.



Making Butter

Supplies

- Small mason jars (the 4 oz canning jars work best)
- A few marbles (one or two per jar)
- Heavy whipping cream
- Crackers for sampling

Ask the students to sit in a circle on the floor. Tell the students that they will be making something that homesteaders often made. Can they guess what it is? It's made out of something that comes from cows. What things come from cows? (Milk!) Read the riddles below and tell the students that the riddles are clues about things that can be made from milk. Ask the students to guess what the riddle is talking about, but tell them to wait to guess until the end of the riddle.

*Cold and creamy,
A frozen treat,
In a cone or a shake,
It can't be beat! (Ice cream)*

*A thick, tart, custard
Fruit flavored or plain,
Curdled or cultured,
With a funny name. (Yogurt)*

Now tell the students they will be making this next treat.

*Rich, creamy, yellow,
Salted or sweet,
On toast or corn,
It's good to eat. (Butter!)*

They will be making butter. What do you need to make butter? All you need is cream and a jar, but homesteaders sometimes had butter churns to make more butter at a time. Put a couple marbles in each jar and fill with cream about 1/3 of the way up and ask the students to take a turn shaking the jar and pass it on to the next person. While the students are shaking have them sing the butter making song below.

Shake it
We're going to make butter,
Rich and creamy too,
With milk from a cow's udder
Before you can say moo

Chorus:
So shake, shake it, shake it,
Shake it if you can
Shake it like a milkshake
And pass it to a friend.

Put some cream into a Jar,
You can add a marble or two,
Make sure the lid is on tightly,
That's all you have to do.

Chorus

We're learning while we're churning,
Hey this is lots of fun!
It's easy to make butter,
Let's eat it when it's done.

Chorus

Oh listen very carefully,
It's sounding different now,
Hooray it's finally butter!
Be sure to thank the cow!

When the marbles in the jars start making louder thumping noises (as opposed to the high "clinking" noises they start out make) check the jars. Reveal to the students what they have made—butter! The thick yellow "blob" is butter (all the fat molecules in the cream sticking together) and the thin liquid is buttermilk. Drain off the buttermilk and spread butter on salted crackers or bread. You may store in the refrigerator, but first remove the marble.

Common Core Connections

Kindergarten, Reading

[CCSS.ELA-Literacy.RL.K.10](#) Actively engage in group reading activities with purpose and understanding.

Speaking & Listening

[CCSS.ELA-Literacy.SL.K.2](#) Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

Grade 1, Reading

[CCSS.ELA-Literacy.RL.1.10](#) With prompting and support, read prose and poetry of appropriate complexity for grade 1.

Speaking & Listening

[CCSS.ELA-Literacy.SL.1.1](#) Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.



Grocery Store Botany

The Grocery Store Botany game teaches kids basic plant parts and to identify which plants in everyday foods are classified as which plants. This is a great way to integrate physical activity into learning.

Supplies needed

- Copies of grocery items (color copies, laminated & sorted into groups) *These cards (printed and laminated) are available from Gallatin Valley Farm to School*
- Six boxes or paper grocery bags marked with one plant part each: root, stem, leaf, flower, fruit, seed.
- Picture of a plant with the different plant parts labeled (or draw on board)

Set-up & Prep

- Print out, laminate & cut out pictures of 30-60 grocery store items (plant based) including whole fruits & vegetables as well as some minimally processed items that it would be feasible to guess the ingredients (e.g. corn chips, bread, cookies, etc., but not highly processed foods that would be really confusing). Divide into two to four equal groups (depending on how many kids are present) and put color-coded stickers on the back.
- Label six boxes or paper grocery bags with the six different plant parts: roots, stems, leaves, flowers, fruits, and seeds. Set up the bags in the front/center of the room/area.
- Have a picture of a plant with all the different plant parts labeled at the front ready to explain.

Activity

1. Have the kids seated or standing in a big group and ready to listen. Tell the kids they will be learning about the parts of plants while competing in teams in a relay race.
2. "So now, let's review the plant parts." Have the kids all stand up if they aren't already. Tell the kids to copy the movement associated (*in italics*) with the plant part. If working with older kids (4th grade & higher, you might skip the movements

and just have them describe the plant parts). Point to each part of the plant on the diagram as you describe each part.

- **Roots!** *Bend and point to your toes.* Roots are in the ground and help the plant draw up nutrients from the soil. Roots also hold the plant in place so it doesn't fall over in the wind or slide away in the rain.
 - **Stem!** *Stand straight and put hands on hips.* Stems are the structure of the plant. It helps the plant cover area and seek sunlight. Stems hold the leaves, flowers, and fruits. Stems are usually above ground, but in some cases can be in the soil too.
 - **Leaves!** *Stand straight and put arms out and shake open hands.* Leaves catch the sunlight for the plant so it can make food.
 - **Flower!** *Hold open your hands along the sides of your face as if to say "sunshine".* Flowers attract pollinators such as bees and bats and will become the fruit.
 - **Fruit!** *Create a circle with your hands.* The fruit is the fleshy part and is usually outside of the seed. So, think of an apple. The fruit is the part we eat, and the seeds are inside.
 - **Seeds!** *Hold thumb and index finger together as if holding a tiny pebble.* As said before, the seeds are inside of the fruit, and if planted correctly, will grow a new plant.
3. Now ask the kids to list foods grown in Montana that are plants. If they say an animal-based food (dairy, meat, etc.), remind them that the food isn't directly from a plant and ask for another suggestion, but the animals eat plants, so it is a worthy point. Once you have an example, ask the kids which part of the plant that food is from. Let's say they said "carrot." Then, they would hopefully say "root," but let them guess the correct answer and then help them through the logic of why it belongs in the root group. In this example, a carrot is a root and we don't really eat any other part of carrots. Take a few more suggestions and then tell the kids they are ready to start the game.
 4. Divide children into a few groups (less than 3 groups). Give each group a stack of food items made from plants (each team gets a different color-coded stack, the color dots are on the back of the cards). If chaperones or parents are available, divide them into groups but make sure they know to *help* the kids, not just *tell* them the answers.
 5. Have the children line up in their groups because they are going to be doing a relay race (evenly distanced from the 6 bags).
 6. Explain to the children that the person in the front of the line will take one of the cards, look it over, and decide which plant parts the food on the card is made from (roots, stems, leaves, flowers, fruits & seeds). Their team can help them decide. Some of the cards could go in multiple different bags, they should just pick one and be ready to explain their answer. When they make a decision for each item, the person in the front of the line with the card should run up to the bags/boxes, and

place the food item in the appropriately labeled bag/box then run to the end of the line. Then it is the next person's turn. When they are all finished, their team needs to sit down.

7. Remind the kids that although the teams are competing, they should take the time to think about which bag the card needs to go in.
8. When ready, say "go" and have them go until a group runs out of cards. That team can sit down and the others can continue until they are finished.
9. When all the groups have finished sorting the contents of their grocery bags/stacks, pull out some of the items from each bag and ask why they chose to put it in that bag. Does everyone agree with the contents? Why or why not? Make sure to validate their reasoning even if it is not entirely correct (i.e., say "Ok... I can see that" and/or "Tell me more about why you chose that plant part"). Provide tidbits to help the discussion such as "potatoes are actually modified **stems** that grow big and starchy in the soil." You know which group put it in the bag by the colored dot on the back, so you can say "red team, tell me about your choice to put corn chips in the seeds bag." Depending on the time you have, you can go through each of the items in the plant part bags/boxes or just a couple from each bag. You can also ask the children if they can think of any other examples of foods that are grown in Montana might be included in each of the six categories.
10. Hand out stickers and/or prizes.

Common Core Connections

Kindergarten, Mathematics

[CCSS.Math.Content.K.MD.B.3](#) Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.¹

Grade 1, Speaking & Listening

[CCSS.ELA-Literacy.SL.1.4](#) Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

Grade 2, Speaking & Listening

[CCSS.ELA-Literacy.SL.2.6](#) Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 [here](#) for specific expectations.)

Grade 3, Speaking & Listening

[CCSS.ELA-Literacy.SL.3.6](#) Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 [here](#) for specific expectations.)



Tops and Bottoms

This activity was provided by the Montana Department of Agriculture's "Agriculture in the Classroom" program. More lesson plans for grades K-8, posters, and other resources are available at: <http://agr.mt.gov/agr/Programs/AgClassroom/>

Grade 1-2 can be easily adapted to be suitable for older students

Duration of Lesson 50 minute class

Purpose

Students will understand that plants have different parts: roots, stems, leaves, seeds, flowers, etc. Lesson is based upon children's book **Tops and Bottoms** by Janet Stevens.

Materials

- Tops and Bottoms* by Janet Stevens
- Seed Packets: corn, lettuce, spinach, carrots, radish, etc.
- Plants with roots and tops attached: Potato plant, spinach or lettuce with roots attached, radishes and carrots with tops attached, and any other food items with the plant parts intact.
- Copy of list: *Fruit and Vegetables Grown and Harvested in Montana* (see below)
- One copy of *Worksheet 1* for each student (see below)

Key Terms

- Leaf
- Stem
- Seeds
- Root
- Flower
- Harvest

Standards / Objectives

Common Core Connections

Grade 1, Mathematics

[CCSS.Math.Content.1.MD.C.4](#) Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Grade 2, Mathematics

[CCSS.Math.Content.2.MD.D.10](#) Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

Montana State Standards

Science: Content Standard 1: Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate results and reasonable conclusions of scientific investigations. Benchmark 1.1 Content Standard 3: Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment. Benchmark 3.1

Math: Content Standard 2: Data Analysis. Benchmarks 2.1, 2.2 Content Standard 3: Geometric Reasoning. Benchmarks 3.1,3.2

Performance / Observations

Performance Task(s)

Identify food parts of plants by observation. Observe and identify location of food growth on plants, graph the data.

Other Evidence

Students will receive a grade based on their participation and completion of the projects, and use of vocabulary terms related to plant growth for food.

Learning / Inquiry Activities

Prep/Introduction

Read *Tops and Bottoms* by Janet Stevens. Explain that when the characters in the book gather the food this is called harvesting food. Farmers and gardeners harvest their food as well. Let students know that after harvest we buy the foods farmers and gardeners grew. We buy these foods in our local grocery stores or at farmer's markets.

There are many ways to harvest foods. Some foods like wheat and potatoes are harvested using machinery; other foods like raspberries must be harvested by hand.

Learning / Inquiry Activities

Discuss the different plant parts (roots, stems, flowers, seeds, and fruit) and where they grow on the plant in relation to tops, bottoms, or middle.

Show the examples of the foods you brought in for demonstration. Ask students to identify the food sources on each plant, and if it grows on the top, middle, or bottom of the plant.

Ask students to think of as many items as they can that come from each food (e.g., corn is used for the following: bread, vegetables, sugars, biofuels, and animal feed).

From each whole food plant item you brought in, ask students to identify each of the other plant parts. Can any of the other plant parts be used for food? Some parts may not be used for human consumption, but may be made into animal feed, like corn stalks.

Following the discussion, post copies of Montana food crops on the board (see below). Students will identify if the food crop grows on the top, middle, or bottom of the plant and use that information to fill out the worksheet below.

Lesson Extensions

Graph the data that was collected during this lesson. Graph the items on the above list by color, shape, location on plant, etc.

Credit and More Information

Partial listing of foods for examples sourced from:

http://www.fruitsandveggiesmorematters.org/?page_id=1600

This activity was created by Montana Department of Agriculture in partnership with Agriculture in Montana Schools.

For more information on many of the crops below please visit

www.aginmontanaschools.org and check out the wide variety of lesson plans.

Fruit and vegetables grown and harvested in Montana!

RED FRUITS AND VEGETABLES

Red Apples
Cherries
Chokecherries
Raspberries
Strawberries
Red Peppers
Radishes
Radicchio
Red Onions
Red Potatoes
Rhubarb
Tomatoes

YELLOW FRUITS AND VEGETABLES

Corn
Yellow Apples
Apricots
Peaches
Yellow
Pears
Butternut Squash
Carrots
Yellow Peppers
Yellow Potatoes
Pumpkin
Rutabagas
Yellow Summer Squash
Sweet Potatoes
Yellow Tomatoes
Yellow Winter Squash

WHITE FRUITS AND VEGETABLES

Cauliflower
Garlic
Jerusalem Artichokes
Kohlrabi
Mushrooms
Onions
Parsnips
Potatoes (White Fleshed)
Shallots
Turnips

GREEN FRUITS AND VEGETABLES

Green Apples
Honeydew
Green Peas
Arugula
Asparagus
Broccoli
Green Beans
Green Cabbage
Cucumbers
Leafy Greens
Leeks
Lettuce
Green Onions
Peas
Green Peppers
Snow Peas
Spinach
Sugar Snap Peas
Zucchini

PURPLE FRUITS AND VEGETABLES

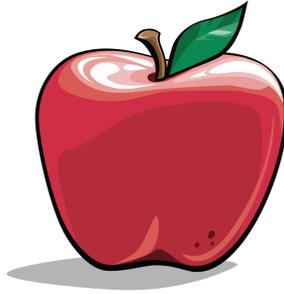
Plums
Elderberries
Purple Asparagus
Purple Cabbage
Purple Carrots
Purple Peppers
Potatoes (purple fleshed)

GOLDEN GRAINS

Oats
Wheat
Barley

LEGUMES

Peas
Beans
Lentils



Crockpot Applesauce (No Added Sugar)

Prep time: 10 minutes

Cook time: 4 hours

Servings: 16

Ingredients

5 pounds apples - peeled, cored, and thinly sliced
1 1/2 tablespoons ground cinnamon or 1 cinnamon stick
1/2 teaspoon ground cloves
1/4 teaspoon ground nutmeg

Directions

1. Layer apples into a slow cooker. Sprinkle cinnamon, cloves, and nutmeg over the apples.
2. Cook on High until apples are soft, 4 to 5 hours. Whisk apples vigorously for a chunkier-style applesauce. Puree with an immersion blender for a smoother applesauce.

Consider combining this activity with another that is apple-related such as a classroom visit from a farmer who has apple trees.



Where Does Our Food Come From?

This activity was provided by Learning by Nature. More information available at: www.learningbynature.org.

While teaching about gardens and food, keep in mind that many people never see food or fiber before those products get to retail stores. Primary-school children may also have only vague ideas about where their foods and fibers come from.

Through garden-based learning, students discover where foods come from, how plants are grown, how plants grow, climate, the elaborate steps involved in commercial food processing, and nutrition. Comparisons can be made to see what happens if some plants do not get their basic needs met (i.e. water and sunlight).

Students also benefit from knowing that many people and types of resources are involved in the agricultural/farming industry. These include workers who farm the land, manufacture farm equipment, and those involved in the food processing, storage, transportation, packaging, distribution, sales and marketing. It is insightful and empowering to understand many forms of transportation, refrigeration, processing, and packaging today, that enables food to be transported, stored and consumed thousands of miles from its place of origin.

As a result, through studies in history, math, economics, science and ecology students can better understand how our culture has gone from historically producing and consuming locally to being dependent on products from across the globe, and the many far reaching consequences thereof.

Peanuts into Peanut Butter (grades 4-8)

As a way for students to step back a bit from what they have learned and better conceptualize the food-to-table process, encourage them to think about some common foods in their homes and discuss or draw out (like a mind map or flow chart) what kind of processes and travel their food went through to get to their plate or lunch bag.

Students should make the connection, when possible, back to the crops and reference the many steps where energy and people power are needed in the food-to-table

process. Use the peanut butter and jelly sandwich as an example.

Students consider and discuss the possible process that peanuts undergo to become peanut butter (or that berries take to become jelly or that wheat takes to become bread). Younger ages can focus on the theoretical steps taken to get food from the field to the plate. Older students can investigate the more detailed processing, transporting, marketing/advertising and different energy inputs required (both human and nature energy) to get food to our plate. Larger world connections can be made analyzing possible related environmental and nutritional impacts and ways to reduce these impacts by shopping and growing locally or closer to home.

This kind of fun and practical pondering will help to reinforce what they have already learned, and allow them to make the crop connection with everyday foods that are real to them, including items they may grow in/near their schoolyard. Other simplified examples may include:

- | | |
|--|---|
| <input type="checkbox"/> Oatmeal - oats | <input type="checkbox"/> Ice Cream - milk, sugar cane |
| <input type="checkbox"/> Tater Tots- potatoes | <input type="checkbox"/> Hot Chocolate - cocoa beans, milk, sugar |
| <input type="checkbox"/> Juice box- fruit, sugar | <input type="checkbox"/> Coffee - coffee beans |
| <input type="checkbox"/> Bread – wheat (flour), sugar, yeast | |

Common Core Connections

Grade 3, Writing

[CCSS.ELA-Literacy.W.3.7](#) Conduct short research projects that build knowledge about a topic.

Grade 4, Writing

[CCSS.ELA-Literacy.W.4.2](#) Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

[CCSS.ELA-Literacy.W.4.7](#) Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Grade 5, Writing

[CCSS.ELA-Literacy.W.5.6](#) With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.



Plant Identification Scavenger Hunt

This activity was provided by Erin Jackson, Montana FoodCorps service member at Hyalite Elementary in Bozeman, Montana. For more information on FoodCorps, visit www.montanafoodcorps.org

Preparation

Remove plant labels in the garden. Label as many plants as you choose with numbers written on paint stirrers or visible pieces of paper. Create and make copies of scavenger hunt sheet, one for each student or group.

Activity

Divide students into groups of 2 or 3 and hand out scavenger hunt paper. Ask them to search for the numbers, decide the plant name using the word bank on their activity sheet, and write the corresponding plant name next to the number on their sheet.

Wrap-up

Once students have identified all numbered plants, walk through the garden together to determine the correct answers and discuss incorrect answers.

Extensions

Repeat the activity later in the fall and see if the students are able to better identify the plants.

Take your students on a farm field trip and repeat the activity, making sure to set boundaries and rules for how to navigate the fields safely.

Challenge older students to unscramble each plant name and then search for it.

Name or Group: _____

Plant Identification Scavenger Hunt

Try to identify each labeled plant in the garden!

Broccoli Onions Spinach Kale Potatoes Peas Corn
Beets Carrots Tomatoes Garlic Purple Cabbage
Peppers Cucumbers Mint

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____



Farmer In The Classroom November Lesson: Montana Storage Vegetables

This is a sample lesson provided by Garden City Harvest in Missoula, MT. The Farmer in the Classroom program is intended to help children understand the importance of the food they eat as it pertains to their health, the health of our community and the world as a whole. This year-long program, developed specifically for 2nd graders, helps build on fall field trip to the PEAS Farm and allows students to continue to learn more about food, nutrition, and healthy eating choices throughout the school year.

The program begins in the fall, with an educational field trip to the PEAS Farm in either September or October (busing sponsored by Garden City Harvest) and is followed by six consecutive, once-a-month, one-hour in-class educational visits by one of our Farmer-Educator from November through April.

For more information, visit www.gardencityharvest.org.

Objectives

1. Introduce the concepts of seasonality and storage crops to students
2. Taste test Montana storage vegetables with students
3. Work on art, dates, labeling
4. Begin to understand the importance of storage vegetables in Montana history

Time: 60 minutes

Grade Level: 2

Materials

Onions
Shallots
Garlic
Winter Squash (Cooked and Raw)
Potatoes (Cooked and Raw)
Other storage crops if necessary
Cutting Board
Knife

Overview And Background

Storage vegetables are a very important part of any vegetable farm or garden, especially in Montana where we have a very short time when it is warm enough to grow vegetables outside. A storage vegetable is a vegetable we grow that we don't eat right away after we harvest it. We grow storage vegetables because they are the types of crops that after they are harvested they can be stored for a long time and stay edible, even without refrigeration. These crops were especially important for people in Montana and other places with cold winters before there was electricity, because the only space they could keep food cool, but not frozen, was in a root cellar (kind of like an underground refrigerator that stays cool without electricity). Here in Montana we grow lots of vegetables that can stay fresh for months without refrigeration. You just need somewhere cool and dry to keep them good. Some of these are:

- Onions
- Shallots
- Garlic
- Winter Squash (technically a fruit)
- Potatoes
- Carrots
- Beets
- Cabbage
- Parsnips
- Apples (a fruit)

These crops were very important to early European settlers in Montana because they could store and eat them during the long cold winters when they couldn't grow vegetables or fruits.

Activities

Onions, Shallots, And Garlic

Cut up an onion and a shallot, and pass out pieces to the students. Give them each pieces with the papery outside skin on it. You can pass around a garlic bulb and clove as well; the students can try and eat the garlic if they are interested, but remember it is very "spicy".

Storage:

Onions, Shallots, and Garlic are all part of the Allium family, meaning they are vegetable cousins! We eat the leafy bulbs of each of these plants, meaning we eat a bulb that is made up of leaves, which is why there are many layers inside the bulb. In Montana we harvest our onions and shallots in September and our garlic in late July or early August, and then we hang them inside. After explaining how the outside papery skin dries out as the onion, shallot, and garlic are cured (hung in a warm, dry place for 2 to 3 weeks) and that the papery skin

acts kind of like a container for the food inside. Onions can stay good for up to 4-8 months if stored properly, in a cool, dry, dark place. Garlic can be stored for about 2-8 months. Shallots can stay good for up to 10-12 months!!!! Meaning they could still be good to eat when you will be entering 3rd grade!!!

Have the kids pull off the papery part of the onion and shallot (and garlic if they ate some) and inspect it. They can then try the onion and the shallot (and garlic), see if they like them!

Nutrition:

Onions, Shallots, and Garlic are all super good for you! Eating these foods can help keep you healthy in lots of ways. They are all good for your stomach, sore throats, bee stings, and your heart and lungs. They also all help prevent cancer and boost your immune system, which is the part of your body that helps keep you from getting sick!

Interesting Onion Facts:

- In the United States we grow over 7 billion pounds of onions each year!
- Onions were very important during the exploration of the New World. Sailors kept onions on the boat because they are high in Vitamin C and helped prevent scurvy, a disease that can be deadly!
- Onions should not be fed to cats or dogs as they are poisonous to both pets!

Winter Squash

Pass around the different winter squash that you have brought for the kids to check out.

Storage:

Tell them about the hard outer skin and how, much like the papery skin of the onion, it acts as a container for the food inside to keep it fresh for a long time! In fact that hard skin can keep winter squash good to eat for up to 6 months without refrigeration!

Winter Squash has lots of vegetable cousins, including zucchini, cucumbers, watermelons, cantaloupes, and of course pumpkins, which are actually a type of winter squash!

Nutrition:

Winter Squash is also very good for you, it is very high in fiber and in Vitamin A, which helps you have good eyesight, and it helps keep your heart healthy!

You can now have the kids try some of the winter squash you have brought (one piece per kiddo!). Ask them what do they think it tastes like?

While they eat you can tell them there is another part of the winter squash we can also eat that is very good for us. What could that be? That's right! It is the seeds! Which means the winter squash that we eat is a fruit, since it has seeds on the inside. The seeds are also super healthy, as they are high in protein which helps build strong muscles, high in vitamins B and E which help you stay healthy, and also have stuff inside that help you sleep well at night!

Give the kids some winter squash seeds to eat! What do they taste like?

Potatoes

Potatoes are another great vegetable we can grow here in Montana that we can store for a long time without a refrigerator. Pass around a few potatoes to the class.

Storage:

Explain that potatoes also have a thick skin on the outside that acts like a container to keep the inside from rotting, but with potatoes, unlike winter squash and onions, we eat the skin or the "container" that keeps the food inside good to eat. In fact, most of the healthiest stuff in potatoes comes from the skin!

Potatoes can be stored in a cool, dark, dry place and can stay good for up to 10 months! But mainly only last about 4-6 months in someone's house.

Storage potatoes, much like storage onions are also cured in warm temperatures so that the skin on the outside can thicken and toughen. These are different than most potatoes people eat which are called "new" potatoes (pass around some new potatoes), which are younger potatoes that haven't developed a thick skin yet, and usually taste better.

Cut up the new potatoes so that each kid can have a piece to inspect. Pass out one piece of cooked storage potato to each kid to eat! Have them check out the skin before eating it and compare it to the skin of the new potato.

Interesting Potato Facts:

- The part of the potato we eat is called a tuber, which is a swollen part of the stem that grows just underground! So it is not a root vegetable, it is actually a stem we are eating, just a very weird one!
- Potatoes are the fourth most consumed vegetable on the entire Earth!
- Potatoes have many vegetable cousins that we eat. Who can name a few? (Tomatoes, Peppers, Eggplants, and Tomatillos!)
- Potatoes, if exposed to sunlight, turn green and become poisonous! So don't eat any green potatoes! They won't kill you unless you eat a crazy amount, but they can give you a really horrible stomach ache!
- There are over 4000 different kinds of potatoes grow in the world!

Other Storage Vegetables Grown in Montana

Any of these could be used for this lesson instead of or in addition to the above storage crops.

- Carrots
- Beets
- Cabbage
- Parsnips
- Apples (a fruit)

Storage Vegetable Art:

Have the students take some time to draw and label some of the storage vegetables they ate and learned about. Make sure they write their name and the date on their drawings!

Conclusion

Storage vegetables are still a very important part of what farmers grow around the world and in Montana. They are very healthy for you and kept your ancestors healthy and full of food during the long winters in Montana. We can continue to grow these delicious and cool vegetables ourselves in our own gardens at home or at school and enjoy these vegetables throughout most of the school year!



Thank you for celebrating National Farm to School Month!

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