

DISCOVER OUR STATE'S DELICIOUS TREASURES

Make a **Montana Tray** by eating foods grown in Montana. See below for examples of foods grown in Montana to help you build a **rainbow** on your tray.

PROTEIN

GRAIN

DAIRY

FRUIT

VEGETABLE

Discover Montana's Delicious Treasures

Three Activities for Active Learning
Montana Team Nutrition Program

Discover Montana's Delicious Treasures

Three Activities for Healthy Learning

Overview

A meal-planning and food exploration lesson for elementary students (grades 2-5) that features foods grown in Montana. Adapted with permission from Iowa Team Nutrition's "Build a Healthy Lunch!" lesson and poster.

This lesson is divided into three activities, each taking 15-20 minutes.

- Activity 1 is intended to first teach students about the USDA's Choose MyPlate icon, which replaced MyPyramid for nutrition guidance for children and adults. The MyTray image has been adapted from Choose MyPlate to provide an image that is relevant to school meal trays. This image can also be used to teach the components of a reimbursable meal.
- Activity 2 builds upon their knowledge about the food groups and asks them to "build a healthy lunch."
- Activity 3 connects the MyTray to Montana grown and raised foods by having the students "discover Montana's treasures" at the end of a healthy rainbow of foods. This is an excellent way to connect nutrition education to farm to school efforts in your school.
- Lesson Extensions: Schedule a time for the school food service manager/head cook to join in one or more of these activities to talk about the school meals program. Ask the food service manager about scheduling a kitchen tour to allow the students to see the Montana foods and the staff preparing their school meals or snacks.

Objectives

Students will be able to:

- identify the five colors, or food groups, of a healthy school lunch;
- categorize foods by their food group, or color;
- build their favorite healthy (rainbow) school lunch;
- identify foods that are grown in Montana;
- taste a Montana grown food; and
- communicate their favorite meal and Montana foods.

Supplies

- Discover Montana's Delicious Treasures Poster
- Discover Montana's Delicious Treasures Food Group Mini Posters (optional)
- MyTray Handout, one copy for each student
- Dry erase board and colored markers –or- strips of paper and Food Group Mini Posters.
- School lunch menu for a week or month

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Montana Team Nutrition Program

More information available at www.opi.mt.gov/MTeamNutrition
Montana Team Nutrition Program is housed at Montana State University and works in cooperation with the Montana Office of Public Instruction. The USDA is an equal opportunity provider and employer.



Discover Montana's Delicious Treasures

Activity 1 – Learn the Lunch Rainbow

1. Distribute copies of your monthly school lunch menu or show on projector. Display the *Discover Montana's Treasures* poster or MyTray image provided.

2. Introduce activity. In this lesson, students will learn about the food groups from My Plate (or My Tray, the school version). They will learn why eating from each of the food groups is important for maintaining good health

3. Describe MyTray/MyPlate. The MyTray (which is the school version of My Plate) is a guide to show how to build a healthy meal. Adults and children need to eat a variety of foods from each of the food groups in order to receive the different nutrients their bodies need to grow and stay healthy. Think of a healthy meal as the treasure at the end of a rainbow. The poster shows a golden tray to show the treasure, and the five colors in a healthy meal "rainbow." Each food group (section of the tray/color) is important to building a healthy body, ready for play and learning. Now start the exploration!

4. Discuss each of the sections of the tray, which are color-coded for the different food groups: vegetables (green), fruit (red), grains (brown), dairy (blue), protein (purple). Use the poster as a visual aid to show the food group areas.

- **Vegetables (green section):** Eating vegetables helps keep your body healthy since most vegetables are packed with vitamins and minerals like Vitamins A and C. These vitamins help your vision and fight infections. Also, vegetables are a good source of fiber, which keeps food moving through the digestive system. Not all vegetables have the same amounts of vitamins, so it is important to eat a variety (or a rainbow) of vegetables.



- Depending on age level, have students write "vegetable" on the blank MyTray handout in the appropriate space.
- Ask for examples of vegetables. Have students draw one example of a food in that food group in the appropriate space on their MyTray handout.
- Have students look at the monthly school lunch menu and share some vegetables that are on the menu during the month.
- Ask students: Are there any orange or red vegetables (carrots, tomatoes, red pepper, squash, sweet potato, etc.) Dark green? (spinach, romaine lettuce, broccoli, etc.) Any dried beans/peas (black beans, pinto beans, kidney beans, lentils, etc.)? *Note: dried beans/peas, lentils, garbanzo beans, and other legumes can count in either the vegetable or the protein sections.*
- Count the different types of vegetables on the menu, writing each type on the board or on a piece of paper. Extension: list the vegetables offered and then mark how many times each vegetable was offered in the month. Students can create a chart with the information.

- Fruit (red section): Eating fruits can help heal cuts and bruises as many are good sources of Vitamin C. Just like vegetables, different fruits offer different benefits. Oranges are a good source of Vitamin C, while bananas are packed with potassium. Potassium is needed to keep your heart beating. Many fruits contain folate which is important to keep our blood healthy by helping form red blood cells.
 - Depending on age level, have students write "fruit" on the blank MyTray handout in the appropriate space.
 - Ask for examples of fruits. Have students draw one example of a fruit in the appropriate space on their MyTray handout.
 - Have students look at the school lunch menu (or read aloud the options) and share some fruits that are on the menu.
 - Ask students: What fruit is your favorite? How many different kinds of fruit are on the menu?
 - Count the different types of fruit on the menu, writing each type on the board or on a piece of paper. Extension: list the types of fruit offered and then mark how many times they are offered to make a chart.
- Grains (brown section): Grains help give you energy to power through your day. They are also a good source of minerals like iron, magnesium and selenium which help carry oxygen in the blood and maintains a strong immune system. Whole wheat or grain sources provide fiber to keep your digestive system healthy. They also provide several B vitamins, which help us feel energized.
 - Depending on age level, have students write "grains" on the blank MyTray handout in the appropriate space.
 - Ask for examples of grains. Have students draw one example of a grain or grain-based product (ie. wheat or wheat bread) in the appropriate space on their MyTray handout.
 - Have the students look at the menu and share some grains that are on the menu during the month.
 - Ask students: What is the definition of whole grain? Can you find any whole grain choices? What clues can you use to know if it is whole grain?
- Milk (blue section): Milk and dairy foods, are a good source of calcium, vitamin D, B vitamins and protein that helps make our teeth and bones strong. Some people cannot drink cow or goat milk; there are many non-dairy alternatives such as soy milk, almond milk, coconut milk.
 - Depending on age level, have students write "dairy" on the blank MyTray handout in the appropriate space.
 - Ask for examples of milk products. Have students draw one example of a dairy product in the appropriate space on their MyTray handout.
 - Have the students look at the menu and see what kinds of milk are available each day.
 - Ask students: What kind of milk do you choose at lunch? What else do you eat that contains milk or dairy? (Answers: cheese, yogurt, ice cream, etc.)
- Protein (purple section): Protein foods contain essential building blocks for our bodies to stay healthy and minerals (iron, zinc, magnesium) along with B Vitamins and Vitamin E. Protein is needed to grow strong muscles. There are many sources of protein including meats, eggs, cheese, yogurt, tofu (soybeans), dried beans/peas, lentils, garbanzo beans, and other legumes. Milk and dairy products are also sources of protein, so they can go in either group.
 - Depending on age level, have students write "protein" on the blank MyTray handout in the appropriate space.
 - Ask for examples of proteins. Have students draw one example of a protein rich food in the appropriate space on their MyTray handout.
 - Have the students look at the menu and share some protein rich foods that are on the menu during the month.
 - Ask students: What protein rich foods are your favorite choices?

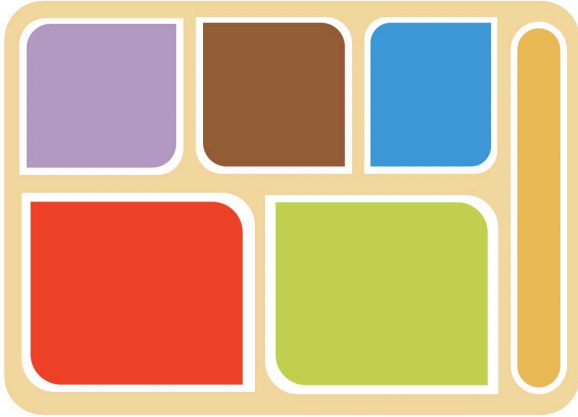
- Candy and Soda (does not have a section):
 - Ask students: Why is there not a section for candy, soda, and other sugary or high-fat foods like cookies or donuts?
 - These foods may taste good, but do not help our bodies grow and be healthy, so they are foods we only eat sometimes. If we eat too many “sometimes foods” we are not hungry for the foods that our bodies need to help us grow, play, and learn.
 - Encourage students to enjoy a variety of fruits for a sweet treat; and to flavor water with fruit or enjoy a glass of fruit or vegetable juice instead of soda.

- Whole Tray:
 - Have students look at the tray image.
 - What two colors take up the most space on the tray?
 - Answer: The red and green sections, which are the fruit and vegetables. It is recommended to “Make half your plate fruits and vegetables!” So remember to have at least one or two fruits and vegetables at each meal.

5. Consider incorporating movement into this activity. After each food group explanation, have students create a corresponding dance move to help them remember what foods in that group contribute to a healthy body.

Activity 2 – Follow the Rainbow to Build a Treasure Meal

1. Distribute a My Tray handout to each student or use the handouts from Activity 1 (coloring around or over the food group names).
2. Instruct students to trace the outside of each section of the tray with the appropriate color as shown on the “Build a Healthy Lunch” handout. Then have them draw their favorite lunch choosing foods from at least three of the colors/food groups on the tray. Our bodies need foods from all of the groups to be strong and healthy. Within each food group/color we also need to eat a variety such as a variety of colors and types of vegetables. Even if you ate broccoli all the time you would not be healthy because your body needs nutrients that broccoli doesn’t have, like protein!



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- **Combination foods:** These are foods that would fall in more than one colored section of the tray because they contain a combination of foods. An example is cheese pizza. It contains a grain serving and a protein serving (cheese), so it would be in both the brown segment and the purple. Add red peppers and spinach to your pizza and it can be included in the veggies/green section too!

- **Reminder:** School meals are planned to encourage students to make half their plate fruits and vegetables so be sure to take a fruit or vegetable at lunch and breakfast. Does your school offer a salad bar or fruit and veggie bar to provide a variety of choices to the students? Students are now required to have a serving (1/2 cup) of fruit or vegetable or a combination on their tray with an additional two items to make their lunch reimbursable (three of five components, with one being a fruit or vegetable). If they do not have a fruit or vegetable, they will be charged a la carte prices. Your school food service manager or head cook can provide additional information to you or the students
3. Have students share their ideas/drawings and describe how their choices fit in the different colors of the tray.
 - Discuss why each of the students’ meals is a rainbow meal or not. Other students can provide recommendations how to change the meal if it is not a rainbow meal.
 - **Tip:** To reinforce the “build a rainbow” concept, read the daily menu to the students each morning and discuss as a class what color each menu item belongs.
 - Encourage students to “build a rainbow” each meal by making sure that throughout the day (breakfast, lunch, dinner, and snacks) they are eating food from all food groups/sections and a variety of foods within each food group. At each meal they should make sure they are eating at least three of the five components (food groups) and including a fruit and/or vegetable. It is easy to demonstrate variety by eating foods of different colors (naturally different colors). Would potatoes and rice be a very colorful meal? What would be a “rainbow” meal? Ask the students to write down what they had during a recent meal (lunch that day or dinner last night) and determine if they had a rainbow on their tray. Have students share their meals. What could they do to make sure they have a rainbow on their tray for their next meal?

Activity 3 – Discover Montana Treasures

1. Montana is the Treasure State due to the abundance of precious metals and minerals found in our state. Our beautiful state has many more treasures to offer including a bounty of healthy agricultural products! In this lesson, students will discover the delicious treasures grown in Montana.
2. Even though Montana has a short growing season, we are able to raise and grow lots of delicious and nutritious foods in our state. Montana is a leading producer of certified organic wheat, dry peas, lentils and flax, and honey. Other crops grown in Montana include sweet cherries, sugar beets, seed potatoes, and hay (food for animals!). We also have more cows than people in Montana and raise a number of other animals including hogs, sheep, and chickens. Some of our food is not farmed, and is wild including elk, deer, antelope, bison, fish, and many wild plants.
 - Have students brainstorm what foods are grown in Montana. Make a list on a whiteboard or a large piece of paper of foods that are or are not grown or raised in Montana. If students have trouble naming foods, have them think about the last time they were in a garden in Montana. What was growing in that garden? Collect at least two responses as the number of students.
 - For each product listed, have students determine which food group/section it belongs. Attach the Food Group Mini Posters to a wall or whiteboard, allowing space for students to move in between the signs. Write the Montana foods on slips of paper or on sticky notes. If using whiteboard, display the list of foods the students created and have markers under each food group. Distribute the papers with Montana foods to students and have them attach the strips of paper under the appropriate food group/section (or write underneath using dry erase markers if using whiteboard). This could be made into a relay or group activity to incorporate more physical activity into the lesson. Compare these responses to the lists provided on the poster and Montana Seasonal Food Chart. Please note: growing season and agricultural production vary greatly from one end of our large state to the other. Also, these lists are not intended to be all-encompassing.
 - Ask students to share their favorite Montana grown and/or made food. What food group/section does it belong in? When does it grow (or is raised) in Montana? This discussion could be linked to gardening activities at home or at school, if applicable.
 - To close the lesson, invite the food service manager/head cook into the classroom to discuss steps they have taken to purchase Montana foods. Have the students write down questions they would like to ask the manager/cook about farmers/vendors, list of items they purchase, food safety, and benefits or challenges to purchasing or offering Montana foods for school meals.
3. Have the students try a new Montana food in the classroom that they possibly haven't had the opportunity to taste yet. Utilize the Taste Testing Handout for creative ways of managing taste testing and encourage positive student input. Items to consider having the students try could be kale (kale chips have been a favorite at many schools in Montana), dried bean or peas, lentils, hummus made from lentils, or beans, or squash.



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Resources

Agriculture & Farm to School

Montana Kids Agriculture Facts

http://montanakids.com/agriculture_and_business/crops/

Montana Ag in the Classroom

<http://agr.mt.gov/agr/Programs/AgClassroom/>

USDA & NASS Agricultural Statistics Site

This site is fairly complicated and would be best used to get numbers to tell the kids rather than having the kids use the site. The database provides data by product type, location, time, value, and acreage produced/sold. <http://quickstats.nass.usda.gov/>

Montana Seasonality Chart

<https://flatheadhealth.org/wp-content/uploads/2020/06/MT-Seasonal-Produce-2020.pdf>

Office of Public Instruction's Farm to School Webpage

<https://opi.mt.gov/Leadership/Management-Operations/School-Nutrition/Montana-Team-Nutrition-Farm-to-School>

Nutrition Education

USDA's Eat Smart to Plate Hard Mini Poster

<https://www.fns.usda.gov/tn/myplate>

Eat Smart with My Plate Student Worksheet & Answer Key

<https://www.choosemyplate.gov/resources/toolkits/myplate-mystate-toolkit-teachers>

Eat Smart Be Smart Nifty Nutrients Chart:

http://www.opi.mt.gov/pdf/SchoolFood/EatSmart/G3/NN_Nutrients.pdf

Sources

Iowa Department of Education, Team Nutrition

<https://www.educateiowa.gov/pk-12/nutrition-programs/team-nutrition>

How to Teach Nutrition to Kids

<https://www.nutrition.gov/topics/nutrition-age/children/kids-corner>

USDA Choose MyPlate

<http://www.choosemyplate.gov/>

Montana Kids Agriculture Site

http://montanakids.com/agriculture_and_business/crops/

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Montana Seasonal Food Chart

Winter Dec - April	Spring May - June	Summer July - Aug	Fall Sept - Nov
Barley	Barley	Apricots	Apples
Beef	Beef	Barley	Barley
Beets	Broccoli	Basil	Basil
Buffalo	Buffalo	Beans	Beans
Carrots	Cabbage	Beef	Beef & Buffalo
Cheese	Cauliflower	Beets	Beets
Chicken	Chard	Broccoli	Broccoli
Eggs	Cheese	Buffalo	Carrots
Garbanzo Beans	Chicken	Carrots	Cabbage
Garlic	Collards	Cabbage	Cantaloupe
Kamut	Eggs	Cantaloupe	Cauliflower
Lentils	Garbanzo Beans	Cauliflower	Chard
Milk	Greens	Chard	Cheese
Mushrooms	Herbs	Cheese	Cherries
Onions	Kale	Cherries	Chicken
Parsnips	Kamut	Chicken	Collards
Pinto Beans	Lentils	Collards	Corn
Pork	Lettuce	Corn	Eggs
Potatoes	Milk	Cucumbers	Garbanzo & Pinto Beans
Shallots	Mushrooms	Eggs	Garlic
Sprouts	Onions	Garbanzo Beans	Kamut
Sunflower	Parsnips	Garlic	Herbs
Seed	Peas	Herbs	Kale
Turkey	Pinto Beans	Kale	Leeks
Wheat	Pork	Kamut	Lentils
Winter Squash	Spinach	Lentils	Lettuce
Yogurt	Sprouts	Lettuce	Milk
	Sunflower	Milk	Mushrooms
	Seeds	Mushrooms	Mustard Greens
	Turkey	Peas	Onions
	Wheat	Peppers	Peas
	Winter Squash	Pinto Beans	Pears
	Yogurt	Pork	Peppers
		Raspberries	Pork
		Scallions	Potatoes
		Shallots	Pumpkins
		Spinach	Raspberries
		Sprouts	Scallions
		Strawberries	Shallots
		Summer Squash	Spinach
		Sunflower Seeds	Sprouts
		Tomatillos	Strawberries
		Tomatoes	Summer & Winter Squash
		Turkey	Sunflower Seeds
		Wheat	Tomatillos
		Yogurt	Tomatoes
			Turkey
			Wheat
			Yogurt

The Montana Seasonal Food Chart shows many of the food items grown or raised in this state that are available throughout the four seasons. For produce, the chart indicates when fresh items may be available and doesn't take into account fruits or vegetables that are available after the harvest season due to canning, freezing or dehydrating. This is not a complete list of all products grown and raised in the state. This chart is adapted from Missoula CFAC <http://www.missoulacfac.org/images/toolsandresources/seasonalchart.pdf>

Taste Testing With Kids

Encourage Healthy Eating Through Positive Taste Tests

Why?

Research shows that children need many opportunities to try new foods before they will claim to “like” them. Following the Healthy, Hunger Free Kids Act of 2010, schools are following a new meal pattern, which increases fruits and vegetables. Taste tests can help reduce food waste during school meals, by providing opportunities for students to learn and taste foods before seeing them in the lunch line.

There are many ways to offer taste tests to kids. This fact sheet provides three examples provided by Erin Jackson, FoodCorps Service Member at Hyalite Elementary in Bozeman, Montana.

Cheers!

Get kids excited by involving them in creating a “cheers” to the food they are about to taste. Explain to children that they are celebrating trying a new food. When people share a meal, they often do a toast to celebrate the moment and the food. Ask the children for ideas to choose something to say for their cheers. An example for carrots would be “Cheers to crazy carrots!” Decide on one phrase. Have children hold up their taste item, say the cheer, and then take a bite!

Don't Yuck My Yum, Please

Nothing ruins a tasty meal, or a new food, like the person next to you saying “ewww, gross” as you are taking a bite. Set the expectation for kids in the beginning of taste tests that they should allow everyone the opportunity to enjoy a new food or one they already like. Provide kids with polite options to decline foods such as “no, thank you” or “I prefer carrots instead of broccoli.”



Tried it, Liked It, Loved It

Children love giving their vote and having a say in decisions. Create a voting system by writing “Tried it,” “Liked it,” and “Loved it” on three cups. See photo above for an example. Use dried beans, toy pieces, or other items for the kids to vote. A child receives a voting piece if they tried the new food. Once they have tried the sample, they can put their voting piece in one of the three cups. Notice there is not a cup for “I don't like it,” which follows the *Don't Yuck My Yum* method above. The voting options are intended to stay positive and commend the children for trying the new food.

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