

Let's Eat!

Engaging Students in Smarter Lunchrooms

- Montana State University (MSU) Food and Health Lab
- Montana Team Nutrition
- MSU Extension Nutrition Education Program

This guide, also available electronically on the Montana State University Team Nutrition website, <http://www.montana.edu/teamnutrition/smartpleasantmeals/letseatlessons.html>, provides information, tips, and classroom lesson plans for schools to engage middle and high schools students in creating Smarter Lunchrooms.



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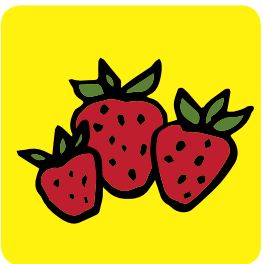
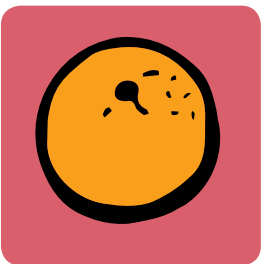
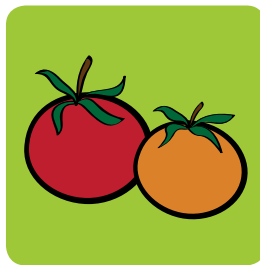
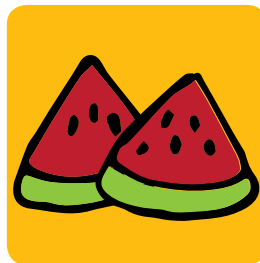
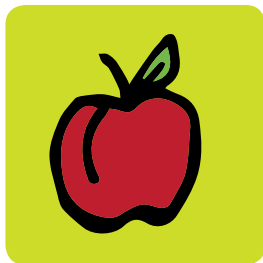
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Let's Eat! Engaging Students in Smarter Lunchrooms

In 2009, a movement began to give schools the tools to make their lunchrooms smarter—the Smarter Lunchrooms Movement. The goal behind this movement is to create inviting lunchrooms that make the healthy choice the easy choice, nudging students to choose nutritious foods. Today, thirty million students eat meals at school through the National School Lunch Program (NSLP) each day. The lunchroom is a perfect opportunity for students to make their own decisions towards healthful eating, learn to try new foods, and decrease food waste in school cafeterias.

Montana State University (MSU) Food and Health Lab, Montana Team Nutrition, and the MSU Extension Nutrition Education Program have been working with Montana middle and high schools to identify best practices to engage middle and high school students in creating a smarter lunchroom. Most of the schools formed a School Lunch Advisory Committee (SLAC) which allowed students a voice to provide important feedback on their existing school meal programs and share creative ideas to make their lunchrooms smarter. Students identified changes and worked with staff to make and evaluate the changes. School Food Service Directors highly valued the students' involvement and the projects were successful!

Utilize this guide to:

- Form a School Lunch Advisory Committee (SLAC) that involves staff and students
- Teach high school students about Smarter Lunchroom principles with one or more of the six lesson plans

SLAC's in Montana schools used the following resources:

> [Smarter Lunchrooms Handbook](#)

> [Montana Smarter Lunchrooms Success Stories](#)

Best Practices for Engaging Students in Smarter Lunchrooms:

1. Build a School Lunch Advisory Committee (SLAC)

Creating a School Lunch Advisory Committee (SLAC) is key to beginning the Smarter Lunchrooms process. A SLAC gives middle and high school students the opportunity to get involved and be a positive voice to make changes at their school.

Who should be on a SLAC?

- 5-6 people total
- 2-3 students, as well as school food service staff, teacher(s), and an MSU Extension professional or other community member

Why would students want to be on a SLAC?

- Involvement in the school wellness policy's plan to create a healthier school campus
- Enhance leadership skills
- Build research experience
- Learn new facts and educate others
- Improve communication skills
- Make a difference

How to begin?

- Schedule a meeting to speak with a school administrator and the School Food Service Director along with other interested parties and introduce the subject through a short, interactive presentation.
- Choose 1-2 teachers or adult advisors to mentor the SLAC.

2. Schedule SLAC Meetings

- Designate a convenient time for students, advisors and other members to meet. LUNCH TIME is very convenient; it does not interfere with events outside of school, or require students to devote time out of school hours.
- FALL is the best time of the year, but early SPRING time (January – March) works as well.
- Share leadership responsibility to give everyone the opportunity to guide a meeting.
- Make sure to SET GOALS along with a timeline to keep the SLAC on track and engaged.

3. Encourage Student Participation

- Have INCENTIVES for those attending meetings (examples: school mascot items, gift cards, and energizing food at the meeting).
- The SLAC could be incorporated with an existing CLASS (Family and Consumer Science, Business, or Health) or CLUB (Student Council, Family, Career and Community Leadership Association (FCCLA), or Future Farmers of America (FFA)) to increase involvement with projects or specific tasks based on skills sets or emphasis.
- Design the SLAC as a student-led project from start to finish.

4. Follow This Easy 4 Step Path to Create a Smarter Lunchroom

1. SPOT

- Complete the [Smarter Lunchrooms Scorecard](#) and [take pictures](#) of your cafeteria.
- Identify 1-3 strategies from the scorecard and photos to implement in the cafeteria.

2. PLAN

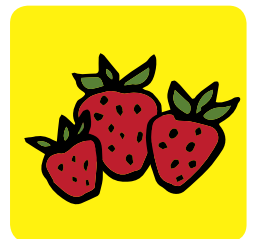
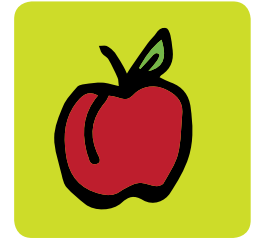
- Use the “SPOT” results and feedback from students to brainstorm changes.
- Create goals and an action plan of all the tasks needed to make the change.

3. DO

- Put the PLAN into action by doing the work.
- Take pre-change measurements to measure success.

4. PROVE

- Take post-change measurements to evaluate effectiveness of the changes.
- Share the results of the project with school and community members.



5. Plan for Continuation

- Wrap up the project with a meeting to **OUTLINE** future ideas and opportunities.
- **MONITOR** the current cafeteria atmosphere. Make sure the front-line school food service staff is on-board and supportive of the changes made. This is essential to maintain the changes which were successfully made.
- Post flyers around the school to recruit more people to be involved in the SLAC.
- Send out emails, newspaper articles, flyers, etc. to students and staff to spark interest in the school's meal program.
- Incorporate a SLAC into each semester of an existing business or Family and Consumer Science class.
- Continue providing feedback to the School Food Service Director by completing this process again the following year.
- Seek out other ways to be involved in the school's wellness plan.

6. See Smarter Lunchroom Success Stories and Create Your Own

See how Montana schools are creating smarter lunchrooms with these [Montana Smarter Lunchrooms Success Stories](#).

7. Use a Simple Classroom Lesson to Involve Middle or High School Students in Creating a Smarter Lunchroom

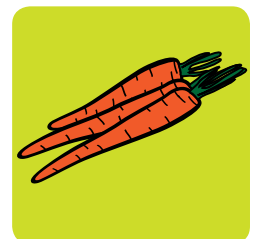
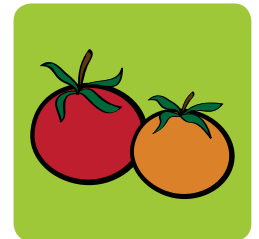
Six Smarter Lunchrooms lessons based upon the 4-Step Path to Building a Smarter Lunchroom are provided. These lessons were designed for high school students in Health Enhancement, Business, or Family and Consumer Science classes. The lessons could be adapted for middle school use. Montana Education Standards for Health Enhancement and Family and Consumer Science are identified for each lesson (this info is provided in an appendix). Each lesson encourages students, teachers, and the School Food Service Director to work together to create positive change in the school lunchroom and measure the effectiveness of simple Smarter Lunchrooms strategies.

Smarter Lunchrooms Lessons include:

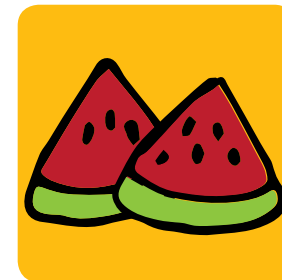
1. Redesign the Lunch Line
2. Make Fruits and Vegetables First, Fast, and Fabulous
3. Give Foods Catchy Names
4. Choose a Complete Meal
5. Conduct a Taste Test
6. Taking a Closer Look at Food Waste and Food Selection at School

Tips for using the lessons:

- Learn about the Smarter Lunchrooms Movement prior to teaching a lesson by reviewing the [Smarter Lunchrooms Handbook](#).
- The lessons can be used in any order; they were not designed to be sequential.
- Before starting a lesson, extend an invitation to the School Food Service Director to work together on a Smarter Lunchrooms lesson.
- Choose a lesson that uses a Smarter Lunchrooms strategy the SLAC team and/or the School Food Service Director is able to fulfill.
- Start small by choosing 1 or 2 strategies directly from the Scorecard to try. Working with the School Food Service Director make one change at a time.
- Consider leading one lesson per year as part of an existing Family and Consumer Science, Business, or Health Enhancement class, or with a student club.
- Students' hands-on experience in the lunchroom is essential to the lesson. Consider offering extra credit to students who eat a school lunch meal prior to starting the lesson or schedule a day for the entire class to eat together in the lunchroom as part of the lesson. Arrange a kitchen tour and a school food service staff meet and greet session.



Redesign the Lunch Line



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan will help participants complete a lunch line redesign, using six behavioral economics concepts from the Smarter Lunchrooms Movement.

Smarter Lunchrooms Process:

This lesson follows the 4-Step Path for Building a Smarter Lunchroom. This lesson plan should be used after Step 1 of the 4-Step Path has been completed by one or more persons in the school where this lesson will be taught. Step 1 includes completion of the Smarter Lunchrooms Scorecard, taking photos indicated on the photo checklist, and review of the photos. By assessing the cafeteria and service lines, students can identify opportunities for redesigning the lunch line.

Please review these resources:

- > [Smarter Lunchrooms Handbook](#)
- > [Montana Smarter Lunchrooms Success Stories](#)
- > [Montana Educational Standards](#)

LESSON TIMEFRAME:

This lesson requires one visit to the lunchroom and 3-4 (50-minute) class periods to complete.

LESSON OBJECTIVES

Students will:

- Identify ways that the school lunchroom environment can impact their behavior through influencing food-related decisions.
- Analyze the results from the Smarter Lunchrooms Scorecard and discuss ways that the school lunchroom environment could be redesigned to promote healthy choices.
- Develop and describe a plan for redesigning the lunchroom environment to promote healthy choices.
- Discuss ways to measure the success of plans to redesign the lunchroom environment.
- Discuss ways to work cooperatively to advocate for their plan to redesign the lunchroom environment.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

- Completed Smarter Lunchrooms Scorecard displayed for students via projector and photos from the photo checklist
- A photo presentation of photo checklist results displayed through a PowerPoint
- Equipment to show YouTube videos (internet, screen, speakers)
- Multiple sets of large poster paper with colored markers or a large classroom white board if activity is conducted as a class
- Post-It notes of different colors or other art supplies to use to depict lunchroom set-up on posters

Helpful hints and further resources:

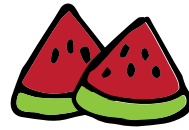
- Inform the Food Service Director about this Smarter Lunchrooms lesson, and invite her/him to collaborate with you on it.
- Schedule a time for your class to go to the lunchroom and meet the Food Service Director.
- It is ideal to have the students visit the lunchroom and/or complete part of the lesson in the lunchroom so that they can visualize the layout. If this isn't possible, it may be helpful to have the basic design of the lunchroom drawn out for students beforehand.
- Consider providing extra credit to students who eat a school meal in the lunchroom during this lesson, as it provides opportunity for hands-on observation.

> Look at the Smarter Lunchrooms [Redesign the Lunch Line activity](#) with lunchroom redesign game pieces provided

> Watch an [introductory video](#) for the Redesign the Lunch Line activity.

Redesign the Lunch Line

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement



Introduction to the Smarter Lunchrooms Movement

Say: **“Today we are going to look at ways we can make small changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choices.”**

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?

Say: **“Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”**

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Step 1: Spot

Say: **“Doing a Smarter Lunchrooms project consists of completing four simple steps. Those steps are Spot, Plan, Do, and Prove. Let’s start with hearing how our lunchroom did on the ‘Spot’ step.”**

Review the ‘Spot Findings - the Smarter Lunchrooms Scorecard and the photo checklist.

The Scorecard and photos may have already been completed by a school food service staff member, or a parent or community member. If not, a teacher and several

students should complete this task together, asking the Food Service Director for information as needed. Then, using the completed Scorecard and photo checklist findings, share the photos with students and discuss any unchecked areas of the Scorecard that indicate possible options for a lunch line redesign. The purpose of considering “redesign” is to help students to choose healthy foods. (This is often done mindlessly - students make a healthy choice without knowing it!)

Step 2: Plan

Say: **“Now that we have reviewed how our lunchroom did on Step 1, ‘Spot,’ let’s start the 2nd step – ‘Plan.’”**

Information for educator:

A lunch line redesign can include any of the following changes to increase selection and consumption of healthy food. Many of these strategies fall under multiple categories on the scorecard.

- Changing the placement of items on the lunch line
- Rearranging or changing the way items are displayed or presented
- Offering items multiple times
- Adding signage
- Giving healthy items fun, descriptive names
- Coupling, bundling, or prepackaging items

Hold a class discussion to prompt planning for lunch line changes using the questions below. Identify unchecked Scorecard items and refer to the Scorecard for ideas under each category.

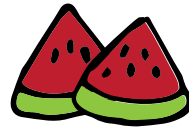
Questions for students

(example answers found on scorecard under each topic):

- In what ways could we redesign the line to focus more on fruit?
- In what ways could we redesign the line to vary the vegetables?
- In what ways could we redesign the line to highlight the salad?
- In what ways could we redesign the line to increase the sale of white milk?
- In what ways could we redesign the line to boost the sale of balanced meals?
- In what ways could we redesign the line to improve the lunchroom atmosphere?

Redesign the Lunch Line

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement



✓ Step 3: Do

Say: **“Now let’s move towards the 3rd step in the Smarter Lunchrooms process – which is to ‘Do’ the redesign of our lunch line.”**

Break the students into groups of 3-4 participants and hand out markers and large poster paper for mapping out the lunchroom changes.

- If time and schedules allow, a lunchroom visit is highly recommended, or a basic drawing of the current lunchroom layout could be provided.
- Another option would be to work together as a class on the marker board or chalk board if time is limited. If this option is selected, group presentations would not be included.

Say: **“Let’s look at our current lunchroom design, and come up with ideas for using Smarter Lunchrooms techniques to help students make healthier choices.”**

Have students begin by drawing out the current lunchroom design on their poster.

Consider including the following areas:

- Hot lines, cold lines, and snack windows
- Milk coolers with white and flavored milks, other beverages
- Snack stands, refrigerated coolers
- Fruit and vegetable locations
- Condiment area
- Tray and cutlery pickup and return
- Trash cans, cleaning materials, and recycling and compost areas
- Cashiers/POS stations
- Vending machines
- Tables
- Bulletin boards, menu boards, signs, and posters
- Windows, entrances, and exits with traffic flow patterns
- Staff or lunchroom monitors’ positions
- Any other notable items within the lunchroom serving/dining space

Ask the students to review the Smarter Lunchrooms Scorecard to determine what strategies have not been checked and allow time for them to redesign the lunch line. Have each group present their poster and share their ideas.

☆ Step 4: Prove

Say: **“Great job coming up with ideas for redesigning the line! The 4th and final step of the 4-Step Path to Building a Smarter Lunchroom is to ‘Prove.’ To wrap up our lesson, we will talk about how we might do that, and what our final steps would be if we actually want to start creating changes in our lunchroom (if applicable).”**

Information for educator:

The success of a lunch line redesign can be measured in several ways:

- Number of items selected – Using a counter, count the number of students choosing a specific food item each day (examples: fruit, vegetable, white milk vs. chocolate milk). Or, if you have access to past food records, ask food service staff if they can determine this number for you, or if the amount served has changed.
- Amount of plate waste – As students are returning their trays, measure the amount of food waste of a specific item, since “food is not considered nutrition until it is eaten.”
- Number of students choosing salad bar – Using a counter, count the number of students making selections at the salad bar, or determine if the amounts of items selected by students have changed.
- Number of students choosing school lunch – Using meal participation records, determine the number of students participating in the school lunch program or any changes in the number of students participating in school lunch over time.

Say: **“Once we make a change, it is important to find out if it is actually increasing the number of students making healthy choices, so using the ideas we came up with, we are going to try and ‘Prove It.’”**

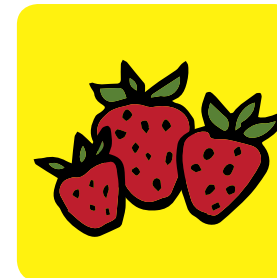
Review with the students that in order to prove something, information or data has to be collected before and after the change(s).

Questions for students (as a class or in small groups):

- How could we find out if the changes that we make help students to make healthier choices in the lunchroom?
- Is there a way to measure any change in the food choices being made or consumed?
- Considering the lunch line redesign ideas you just came up with, can you think of a way to measure one of the proposed changes and explain your plan to “Prove It” to the class?
- Now that we have come up with some lunch line redesign ideas that promote healthy changes, how might we advocate for some of these changes, or be involved in making our ideas happen in the lunchroom? (if applicable)

> Assessment Tools

Make Fruits and Vegetables First, Fast, and Fabulous



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan will help participants increase consumption of fruits and vegetables by making them more convenient and visually appealing using the six behavioral economics concepts from the Smarter Lunchrooms Movement.

Smarter Lunchrooms Process:

This lesson follows the 4-Step Path to Building a Smarter Lunchroom. This lesson plan should be used after Step 1 of the 4-Step Plan has been completed by one or more persons in the school where this lesson will be taught. Step 1 includes completion of the Smarter Lunchrooms Scorecard and compiling 25-30 photos of the lunchroom and service line. Using these tools to assess the cafeteria and service lines will help you identify opportunities to make fruits and vegetables more appealing and identify ideal food placement to nudge student food choice and consumption.

Please review these resources:

> [Smarter Lunchrooms Handbook](#)

> [Montana Smarter Lunchrooms Success Stories](#)

> [Montana Educational Standards](#)

LESSON TIMEFRAME:

This lesson requires 2 (50-minute) class periods to complete.

LESSON OBJECTIVES

Students will:

- Identify how the school lunchroom environment influences behavior and food-related decisions.
- Analyze the results from the Smarter Lunchrooms Scorecard and discuss ways that the school lunchroom could better market fruits and vegetables to increase student consumption.
- Develop and describe a plan for changing placement, advertisement, and display of fruits and vegetables in the lunch line.
- Discuss ways to measure the success of steps to increase the marketing and consumption of fruits and vegetables.
- Discuss ways to work cooperatively to advocate for their plan to make fruits and vegetables first, fast, and fabulous.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

- Equipment to show YouTube videos if possible (internet, screen, speakers)
- Completed Smarter Lunchrooms Scorecard displayed for students via projector and photos from the photo checklist
- A photo presentation of photo checklist results displayed through a PowerPoint
- Poster boards and markers
- Scratch paper

Helpful hints and further resources:

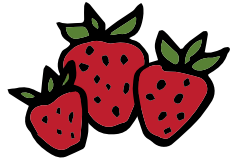
- It is ideal to have the students visit the lunchroom and/or complete part of the lesson in the lunchroom so that they can visualize the layout. If this isn't possible, it may be helpful to have the basic design of the lunchroom drawn out for students beforehand.
- Consider providing extra credit to students who eat a school meal in the lunchroom during this lesson, as it provides opportunity for hands-on observation.

> [Ideas for suggestive selling of fruits and vegetables](#)

> [How placing fruit front and center can drive sales](#)

> [Making the salad bar centrally located](#)

> [Examples of colorful posters used to promote fruit and vegetable consumption](#)



Introduction to the Smarter Lunchrooms Movement

Say: **“Today we are going to look at ways we can make small changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choices.”**

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?

Say: **“Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”**

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Say: **Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.**

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Step 1: Spot

Say: **“Today we are going to talk about using Smarter Lunchrooms to nudge students into eating more fruits and vegetables. The goal of this lesson is to learn how we can make fruits and vegetables First, Fast, and Fabulous in the cafeteria.”**

Questions for students:

- Why do you think that a school would want to make fruits and vegetables easily accessible in areas of the cafeteria and at eye level?
- Would students notice a colorful or large display throughout the lunch line?
- Which principles of behavioral economics are being used through these actions/strategies?

- Are you more likely to go out of your way to grab a fruit or vegetable if it is not easy to reach or see?
- Would you rather grab produce from a colorful and appealing display or a dull, unappealing one?
- Do you think convenience and visual appeal influence your decisions in the cafeteria?
- When picturing your favorite restaurant, are there any cues or displays that convince you to purchase and consume a specific food?

Say: **“Making fruits and vegetables First, Fast, and Fabulous can be a very effective way to increase consumption of produce in the cafeteria.”**

Introduce the idea of First, Fast, and Fabulous fruits and vegetables by reviewing or showing the following short (1-3 minutes each) video(s):

- [Suggestive Selling](#)
- [Centrally Located Salad Bar](#)
- [Placing Fruit Front and Center](#)

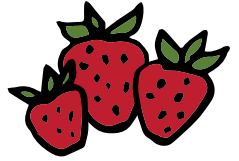
By placing fruits and vegetables FIRST in the service line or ensuring the salad bar is front and center; making them convenient and FAST for students to select, and eye appealing (FABULOUS), students won’t be able to resist selecting them.

Say: **“The Smarter Lunchrooms project consists of completing four simple steps. These steps are Spot, Plan, Do, and Prove. Let’s start with the ‘Spot’ step to evaluate how our lunchroom promotes fruits and vegetables.”**

Review ‘Spot’ Findings - the [Smarter Lunchrooms Scorecard](#) and the [photo checklist](#).

The Scorecard and photos may have already been completed by a school food service staff member, or a parent or community member. If not, a teacher and several students should complete this task together, asking the Food Service Director for information as needed. Then, using the completed Scorecard and photos, identify the unchecked areas of the Scorecard to better market fruits and vegetables. The goal is to increase the visual appeal and convenience of fruits and vegetables to nudge students to choose and eat more fruits and vegetables.

- Have students assess the first three sections of the scorecard that evaluate fruit, vegetable, and salad bar options.
- Have students individually list examples of what is being done well, how it is being done well, and areas for improvement.



Step 2: Plan

Say: **“Now that we have reviewed how our lunchroom did on Step 1, ‘Spot,’ let’s start the 2nd step – ‘Plan.’”**

Information for educator:

Making fruits and vegetables First, Fast, and Fabulous can include any of the following changes to increase selection and consumption of healthy food. Many of these strategies fall under multiple categories on the scorecard.

- Changing the placement of items on the lunch line
- Preparing foods in different ways
- Rearranging or changing the way items are displayed or presented
- Offering items multiple times
- Use a large, colorful bowl to display fruits or vegetables
- Adding signage to draw attention to the item(s)
- Giving healthy items fun, descriptive names
- Coupling, bundling, or prepackaging items
- Using a share basket to place whole, uneaten fresh fruits and vegetables after mealtime for others to take instead of throwing away

Class discussion: Hold a class discussion to prompt planning for marketing changes using the questions below. Refer to the Scorecard for ideas under each category.

Questions for students

(examples found under each topic on Scorecard):

- In what ways could we prepare or display fruits differently so that they are more visually appealing or convenient?
- In what ways could we prepare or display vegetables differently so that they are more visually appealing or convenient?
- How can we bring more attention to the salad bar?
- How could preparation techniques influence student selection? Example: Slicing apples in order to make them convenient and easier to consume while also reducing waste.
- How can we make the cafeteria more welcoming and lead people towards selecting fruits and vegetables?
- Where should we place fruits and vegetables to get more students to see and select them?
- Let’s look at some of the Scorecard strategies that are NOT checked. These are opportunities to nudge choice. Which of these strategies could we use to make fruits and vegetables First, Fast, and Fabulous?

Step 3: Do

Say: **“Now let’s move towards the 3rd step in the Smarter Lunchrooms Path – which is to ‘Do’ the work necessary to increase fruit and vegetable convenience and appeal on the service line.”**

If possible, have students walk through the cafeteria beforehand to get a visual picture of how fruits and vegetables are displayed. If not, have a student sketch out the cafeteria set up on the whiteboard for the class to reference.

Say: **“First we are going to make a list as a class of how we can make fruits and vegetables First, Fast, and Fabulous based on our Plan step. What ideas do you have?”**

Have a student record the brainstormed list on the whiteboard (examples follow). Link these ideas back to specific Scorecard strategies:

- Displaying colorful signs
- Using larger signs
- Labeling with fun names
- Serving sliced fruits or vegetables instead of whole
- Using appealing bins or baskets
- Placing fruits or vegetables towards the front of the lunch line and right next to the cash register at eye level
- Pairing fruit and vegetables with a “combo” “grab and go” meal
- Offering “grab and go” fruit and vegetable items

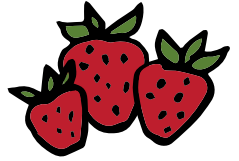
After brainstorming, show students [examples of posters](#).

Say: **“Now that we have an idea of what we would like to do, let’s plan how to make some changes happen.”**

Divide students into groups of three and pass out a poster along with markers and scratch paper to each group. Have the groups work on the two assignments below:

- Create a sign or poster that highlights a fruit or vegetable.
- Brainstorm five ways to prepare or display fruits and vegetables - focusing on placement (FIRST), convenience (FAST), and eye-appeal qualities or tastiness (FABULOUS).

Have each group present their posters and ideas to the class.



☆ Step 4: Prove

Say: “Great job coming up with ideas for making fruits and vegetables First, Fast, and Fabulous! The 4th and final step of the 4-Step Smarter Lunchrooms Path is ‘Prove.’ To wrap up our lesson, we will talk about how we might do that, and what our final steps would be if we actually want to start to create changes in our lunchroom (if applicable).”

Information for educator:

The success of a fruit and vegetable marketing intervention can be measured in several ways:

- Record the number of students that are selecting a specific fruit or vegetable before and after improving marketing, preparation, and display techniques.
- Plate waste for a specific fruit or vegetable can be recorded before and after the intervention to see what is being consumed.
- Sales or production data can be analyzed before and after making changes to determine if sales for specific fruits or vegetables have increased after the intervention.
- Students can experiment with different sizes, shapes, colors, drawings, labels, etc. for signage used on produce items and compare them within the cafeteria to see which techniques and placements work best.
- When whole and sliced fruit are offered to students in the lunchroom, count the number of whole fruit vs. sliced fruit servings selected by students and make comparisons to determine which one was more popular with students.

Say: “Once we make a change, it is important to find out if it is actually increasing the number of students making healthy choices, so we will now “Prove” that the change worked.” Review with the students that to prove something, information or data must be collected before and after the change(s).

Questions for students (as a class or in small groups):

- Specifically pertaining to the idea of making fruits and vegetables First, Fast, and Fabulous, how can our proposed changes be tracked?
- Is there a way to measure if students are consuming more fruits and vegetables?
- (If applicable) Now that we have come up with some new ways to promote fruit and vegetable consumption in your cafeteria, how might we advocate for some of these changes, or be involved in making our ideas happen in lunchroom?
- Who can assist us in making more posters and signs or adding new displays and preparation techniques to the cafeteria?
 - Example: Working with the school art teacher or an art class to design and create murals or paintings for the cafeteria that promote fruits and vegetables to students.

> Assessment Tools

Give Foods Catchy Names!



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan will help students increase the selection of nutritionally balanced meals by using creative, flashy, and fun menu names in the school lunchroom. This will be done by using 1-6 behavioral economics concepts from the Smarter Lunchrooms Movement.

Smarter Lunchrooms Process:

This lesson follows the 4-Step Path to Building a Smarter Lunchroom. This lesson plan should be used after Step 1 of the 4-Step Path has been completed by one or more persons in the school where this lesson will be taught. Step 1 includes completion of the Smarter Lunchrooms Scorecard, taking 25-30 photos as indicated on the photo checklist, and reviewing the photos. By assessing the cafeteria and service lines, students can identify opportunities to make certain foods more appealing through naming strategies that will nudge choice and consumption.

Please review these resources:

- > [Smarter Lunchrooms Handbook](#)
- > [Montana Smarter Lunchrooms Success Stories](#)
- > [Montana Educational Standards](#)

LESSON TIMEFRAME:

This lesson requires 2 (50-minute) class periods to complete.

LESSON OBJECTIVES

Students will:

- Identify how the school lunchroom environment influences behavior and food-related decisions through enhancing taste expectations.
- Analyze the results from the Smarter Lunchrooms Scorecard and discuss ways that the school lunchroom could increase consumption of fruits, vegetables, or targeted foods through the use of catchy and fun names.
- Develop and describe a plan for changing names of menu items in order to enhance the taste expectations that students have when selecting foods.
- Discuss ways to measure the success of using creative naming in the lunchroom in order to verify that the use of catchy names increases selection.
- Discuss ways to work cooperatively with school staff to create new, catchy names for menu items served in the school cafeteria.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

- Equipment to show YouTube videos if possible (internet, screen, speakers)
- Completed Smarter Lunchrooms Scorecard displayed for students via projector and photos from the photo checklist
- A photo presentation of photo checklist results displayed through a PowerPoint
- Pens and lined paper

- Personal whiteboards and Expo markers for students (one for every four students) OR an easel with paper (per every four students)

Helpful hints and further resources:

- Consider providing extra credit to students who eat a school meal in the lunchroom during this lesson, as it provides opportunity for hands-on observation.
- [Creative, fun and descriptive names \(word bank\) from Smarter Lunchrooms](#)
- [Print your own signage and labels from Smarter Lunchrooms](#)
- [The Smarter Lunchroom Name Game Activity Worksheet](#)
- [An example of a menu with creative naming from Crave Burger](#)
- [A Team Nutrition Michigan video on themed meals and unique naming strategies](#)
- [Activity for creating fun food names from the Extension website written by Lauren Gabuzzi](#)
- [Fun fruit and vegetable names and fruit and vegetable naming contest from Washington State's Smarter Lunchrooms toolkit](#)
- [Fruit and vegetable naming cards from Ohio State's Smarter Lunchrooms toolkit](#)



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

Introduction to the Smarter Lunchrooms Movement

Say: **“Today we are going to look at ways we can make small changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choices.”**

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?

Say: **“Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”**

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Say: **Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.**

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Step 1: Spot

Say: **“Today we are going to talk about how using catchy names for menu items can have a positive effect on choices that students make in the lunchroom. The goal of this lesson is to use Smarter Lunchrooms techniques to help students choose and eat healthier foods.”**

Questions for students:

- When a menu uses creative names for food, does it make the food seem more appealing?

- Have you ever been to a restaurant that has catchy names on the menu? Give an example from menus from your favorite restaurants.
- Do you think that renaming fruits and vegetables in your lunchroom would make them more appealing?
- Would you rather choose a plate of “spinach” or “Super Snazzy Spinach”?

Say: **“Promoting healthy food items through the use of creative names can be a very effective way to influence the decisions that students make in the lunchroom.”**

Introduce the idea of “catchy names” by reviewing or showing the following video(s) and links:

- [An example of a menu with creative naming from Crave Burger](#)
- [A Team Nutrition Michigan video on themed meals and unique naming strategies](#)
- [Creative, fun, and descriptive names \(word bank\) from Smarter Lunchrooms](#)

Say: **“The Smarter Lunchrooms project consists of completing four simple steps. Those steps are Spot, Plan, Do, and Prove. Let’s start with the ‘Spot’ step and evaluate our lunchroom to see if using ‘catchy names’ will positively influence food choices.”**

Review ‘Spot’ Findings - the [Smarter Lunchrooms Scorecard](#) and the [photo checklist](#).

The Scorecard and photos may have already been completed by a school food staff member, parent, or community member. If not, a teacher and several students should complete this task together, asking the Food Service Director for information as needed.

Using the completed Scorecard and photos, share with students the photos and the unchecked areas of the Scorecard that indicate a need for more fun and catchy food names in the lunch line. The goal is to influence students’ taste expectations to nudge them to make a healthy choice.

- Have students evaluate all sections of the Scorecard while putting emphasis on the “Lunchroom Atmosphere” section along with the “Student Involvement” and “School Community Involvement” sections.
- Have students individually list specific strategies from the Scorecard that could be addressed through the use of catchy naming for menu items.
- Have students use this list in order to identify which strategies are already being addressed in the lunchroom and which strategies offer opportunity for change.



Step 2: Plan

Say: “Now that we have reviewed how our lunchroom did on Step 1, ‘Spot,’ let’s start the 2nd step – ‘Plan.’”

Information for educator:

Creating catchy names for menu items can be done using the following techniques and strategies. The goal is to increase selection and consumption of healthy food. Many of these strategies fall under multiple categories on the Scorecard. Choose naming categories that are appropriate for the target audience and will help them engage in the activity.

- Choose items on the menu that are often passed up by students and focus on these items first.
- Use alliteration or figures of speech to create catchy names for foods.
- Name foods after famous athletes, superheroes, cartoon characters, etc.
- Pick themes and create a menu that incorporates the theme in every item.
- Increase school spirit by naming menu items after a mascot or by incorporating school colors into the names.
- Think about your favorite characteristic of the food item and use it in creating a fun name.
- Look up nutrition information about the specific food or drink and add this benefit into the fun name or statement to entice students. An example could be “X-ray Vision Carrots” because carrots are good for eye health.

Class discussion:

As a class, discuss different ways of naming food items that would help increase their appeal.

Use the following questions as a guide to stimulate creativity and help students come up with ideas:

- What are some behavioral economic strategies for naming menu items?
- How can nutritional information be incorporated into names?
- What movies, TV shows, cartoons, books, celebrities, athletes, or historical figures could you incorporate into food names?
- How could we increase school spirit using food names?
- Do you think that themes would be a fun way to tie foods together and make them more fun?

Step 3: Do

Say: “Now let’s move towards the 3rd step in the Smarter Lunchrooms Path – which is to ‘Do’ the work necessary to rename menu items in the school lunchroom.”

Say: “First we are going to make a list of common food and drink options that are available in your [our] cafeteria. See how many items you can remember.”

If they don’t remember many items, provide a copy of their school lunch menu.

Have students raise their hands and tell you examples of healthy food and drink items that are served in their cafeteria. Record on the whiteboard. Examples include:

- Steamed broccoli
- Whole apples
- Turkey sandwich
- Whole grain pasta
- Milk

Interactive game:

Now lead an interactive game to spark creativity and give students naming ideas for items listed on the whiteboard. Instructions are as follows:

- Break students up into groups of 3-4 and spread the groups out around the classroom. Give each group leader a whiteboard or piece of large easel paper/poster board and Expo marker.
- To work on naming: State the name of a food or drink and have groups brainstorm as many descriptive words that they can in 30 seconds (words that make the food seem appealing).
- After 30 seconds, see which team has the most words and check the words for appropriateness.
- The winning team will receive a point! Play until a team earns five points.
- Depending on time, the game rules can be changed to have students make up names that have to do with school spirit, movie stars, alliteration, nutritional benefits, etc. Switch up the theme of the game several times in order to get students thinking.



★ Step 4: Prove

Say: “Great job coming up with catchy, fun, and enticing names for menu items in the cafeteria. The 4th and final step of the 4-Step Smarter Lunchrooms Path is ‘Prove.’ To wrap up our lesson we will talk about how we might do that, and what our final steps would be if we actually want to start to create changes in our lunchroom (if applicable).”

Information for educator:

The success of this marketing intervention can be measured in several ways:

- Record the number of students that are selecting a specific healthy menu item before and after renaming it.
- Plate waste for a specific menu item can be recorded before and after renaming to see what is being consumed.
- Sales or production data can be used to determine if sales for specific menu items have increased after the intervention.
- Create a comment box for students to share their opinions about the new names or propose new ones.
- Have students vote on names for certain food items on a monthly or quarterly basis so that they are involved and engaged in their lunchroom.

Say: “Once we make a change, it is important to find out if it is actually increasing the number of students making healthy choices, so using the ideas we came up with, we are going to try and ‘Prove It.’”

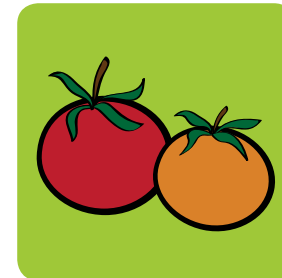
Review with the students that in order to prove something, information or data must be collected before and after the change(s).

Questions for students to respond to as a class:

- How can we monitor the effect of the menu naming changes that we make in order to see if they are affecting food choice in the cafeteria?
- Is there a way to measure if students are actually consuming more of the healthier foods instead of just choosing them?
- Can you think of a way to get the student population involved in the process of naming menu items?
- How often do you think it would be appropriate to rename food items in the cafeteria so that students remain excited about them?
- Do you have ideas on who to work with (classroom teachers, school food service, librarian, etc.) to create catchy names and make simple signs or name plates for the service line? Who would write the names on the daily menu board?

[> Assessment Tools](#)

Choose a Complete Meal!



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan will help students increase the selection of nutritionally balanced meals ('complete meals') to support growth, health, academic, and athletic success. This will be done by using behavioral economics concepts from the Smarter Lunchrooms Movement.

Smarter Lunchrooms Process:

This lesson follows the 4-Step Path to Building a Smarter Lunchroom. This lesson plan should be used after Step 1 of the 4-Step Path has been completed by one or more persons in the school where this lesson will be taught. Step 1 includes completion of the Smarter Lunchrooms Scorecard, taking 25-30 photos as indicated on the photo checklist, and reviewing the photos. By assessing the cafeteria and service lines, students can identify opportunities to encourage the selection of a complete meal at lunchtime.

Please review these resources:

- > [Smarter Lunchrooms Handbook](#)
- > [Montana Smarter Lunchrooms Success Stories](#)
- > [Montana Educational Standards](#)

LESSON TIMEFRAME:

This lesson requires 3 (50-minute) class periods to complete.

LESSON OBJECTIVES

Students will:

- Identify how the school lunchroom environment influences behavior and food-related decisions through the promotion of balanced and nutritious meals (Behavior Economics Principle 4).
- Review the USDA's Choose MyPlate. Review the five food groups and steps to build a healthy plate.
- Understand the meaning of a USDA reimbursable meal. (A reimbursable meal is three of five food groups, including one fruit or vegetable and is also referred to as 'complete meals'.)
- Understand the motivation for schools to serve more reimbursable meals. More reimbursable meals served means more money for schools and more balanced meals for students.
- Analyze the results from the Smarter Lunchrooms Scorecard and discuss ways that the school lunchroom could increase consumption of complete meals that incorporate three or more food groups into each meal.
- Learn about the importance of building complete meals and how obtaining proper nutrients can sustain and improve the human body.
- Discuss ways to measure the success of the steps taken to increase the sales of complete meals.
- Discuss ways to work cooperatively with school staff to advertise and promote healthy, complete meals.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

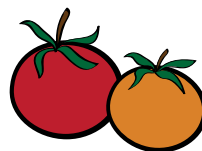
- Equipment to show YouTube videos if possible (internet, screen, speakers)

- Completed Smarter Lunchrooms Scorecard displayed for students via projector and photos from the photo checklist
- A photo presentation of photo checklist results displayed through a PowerPoint
- Copy of school lunch menu
- Poster board and markers
- Pen and paper

Helpful hints and further resources:

- Inform the Food Service Director about this Smarter Lunchrooms lesson, and invite her/him to collaborate with you on it.
- Schedule a time for your class to go to the lunchroom and meet the Food Service Director. Or, invite the Food Service Director into your classroom. Ask the Food Service Director to explain what a reimbursable meal is and why it helps the food service program to serve more reimbursable meals.
- It is ideal to have the students visit the lunchroom and/or complete part of the lesson in the lunchroom so that they can visualize the layout.
- Consider providing extra credit to students who eat a school meal in the lunchroom during this lesson, as it provides opportunity for hands-on observation.
- Consider eating a reimbursable meal with your class together in the lunchroom as part of this lesson.

- Learn more about the five food groups from the [USDA Choose My Plate website](#)
- [10 steps to building a healthy meal and examples of complete meals and recipes](#)
- [Video on how to build a well-rounded meal](#)
- [Sample plate video from Michigan Team Nutrition](#)
- [Explanation of a USDA reimbursable meal](#)



Introduction to the Smarter Lunchrooms Movement

Say: **“Today we are going to look at ways we can make small changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choices.”**

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?

Say: **“Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”**

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Say: **Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.**

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Step 1: Spot

Say: **“Today we are going to talk about what constitutes a well-rounded, reimbursable meal, also called a ‘complete meal’ and how we can promote the selection of complete meals in the lunch line. The goal of this lesson is to use Smarter Lunchrooms techniques to nudge students into selecting more diverse, colorful, and complete meals.**

We have invited our Food Service Director into our classroom today. (Name) will teach us more about what a reimbursable meal is, the importance of serving reimbursable meals (\$\$), maintaining participation, and any technical terms from the Scorecard. (Name) will also tell us how the school meals program currently promotes reimbursable meals.”

The terms ‘reimbursable’ and ‘complete meal’ have the same meaning. Both terms refer to a school lunch meal which meets the National School Lunch Program requirements (the meal includes three of five food groups, one of the three being a fruit and/or vegetable). Food Service Directors use ‘reimbursable meal’ terminology. Students, school staff, and other customers would be more familiar with a ‘complete meal.’

Questions for students:

- What are the five food groups?
- What is meant by choosing a complete meal? What constitutes a complete meal?
- Why is it important to have a variety of foods on your plate?
- Reflect on what your lunch tray has looked like over the past week. Has it been colorful and balanced with a variety of items?
- How can the lunchroom environment promote complete meals?
- What is a reimbursable meal and how does it help a school save money?

Say: **“Promoting complete meals in the cafeteria can have a positive effect on how students grow, their overall health, their academic success, and their athletic success.”**

Remind students that a complete meal is made up of at least three of the five food groups including at least ½ cup of fruit or vegetables. Introduce the idea of a complete meal by reviewing or showing the following video(s) and links:

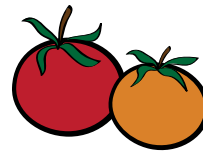
- Learn more about the five food groups from the [USDA Choose My Plate website](#)
- [10 steps to building a healthy meal and examples of complete meals and recipes](#)
- [Video on how to build a well-rounded meal](#)
- [Sample plate video from Michigan Team Nutrition](#)
- [Explanation of a USDA reimbursable meal](#)

Say: **“The Smarter Lunchrooms project consists of completing four simple steps. Those steps are Spot, Plan, Do, and Prove. Let’s start with the ‘Spot’ step and evaluate your lunchroom to see if there are more ways to promote complete meal selection.”**

Review ‘Spot’ Findings - the [Smarter Lunchrooms Scorecard](#) and the [photo checklist](#).

The Scorecard and photos may have already been completed by a school food service staff member, or a parent or community member. If not, a teacher and several students should complete this task together, asking the Food Service Director for information as needed.

Choose a Complete Meal!



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

Using the completed Scorecard and photos, share with students the photos and the unchecked areas of the Scorecard that indicate a need for more complete meal selection in the lunchroom. The goal is to increase the appeal and desire for nutritionally balanced meals.

- Have students evaluate these sections of the Scorecard: Boost Reimbursable Meals, Lunchroom Atmosphere, Student Involvement, and School Community Involvement.
- Have students individually list specific strategies from the Scorecard that could be addressed through the use of complete meal selection strategies. Hint: the unchecked strategies on the Scorecard.
- Using this list, have students identify which strategies are already being addressed in the lunchroom and which strategies offer opportunity for change.

Step 2: Plan

Say: **“Now that we have reviewed how our lunchroom did on Step 1, ‘Spot,’ let’s start the 2nd step – ‘Plan.’”**

Information for educator:

Creating complete meals can be done using the following techniques and strategies. The goal is to increase selection and consumption of fruits, vegetables, milk, lean proteins, and whole grains. Many of these strategies fall under multiple categories on the Scorecard.

- Label trays based on the five food groups so that they are reminded of how to make their tray more nutritionally diverse.
- Create signs with examples of colorful and diverse meals. How can a variety of fruits and vegetables be promoted?
- Display sample plates/meals at the beginning of the service line for students to see how to build a complete meal.
- Use creative, fun names on the menus to entice students to choose the healthful entrée, salad, vegetable, or complete meal.
- Encourage lunchroom staff use positive phrasing to encourage selection of a complete meal.
- Provide multiple options in each food group so that people with different preferences or allergies can still build a complete meal.
- Design an a la carte menu to offer a combination meal (combo meal deal) at a lower price to encourage students to select a complete meal. Would a “grab and go” meal be a feasible option for the food service staff to offer? Discuss with the Food Service Director, if possible.

Class discussion:

As a class, discuss different ways of promoting complete meal selection in the cafeteria.

Use the following questions as a guide to stimulate creativity and help students come up with ideas:

- What are some strategies you can think of for promoting a complete meal selection?
- How can signage (education) using posters or trays lead students to choose a complete meal? What types of poster designs can be created? Can pictures of complete meals be promoted on the school television/computers located in common areas?
- How can we design the lunch line to encourage students to select at least three food groups, including at least ½ cup of a fruit or vegetable?
- What can staff members do to help?
- How many options for each food group do you think should be available?

Step 3: Do

Say: **“Now let’s move towards the 3rd step in the Smarter Lunchrooms Plan – which is to ‘Do’ the work necessary to improve the school lunchroom.”**

Say: **“Using the school lunch menu, how easy do you think it will be to create a complete meal?”** If your school offers a salad bar, include those foods too.

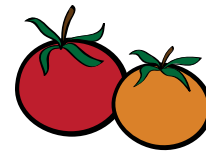
Have students get into groups of three and look at the sample cafeteria menu from their school. Ask students to create complete meals using the options available and write them down. Afterwards, discuss these questions as a class:

Say: **“Now we are going to create changes in the lunchroom environment in order to promote choice and consumption of complete meals.”**

Have students get into the same groups of three and design posters to hang in the cafeteria using the meals that they formulated earlier. Have each group come up with one way to promote a complete meal.

- How can pictures of complete meals be promoted to students?
- Students can create a flow chart or highlight steps to forming a complete meal on their poster.

Choose a Complete Meal!



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

- How can a 'grab and go' combo meal that includes three out of five food groups, including at least ½ cup of a fruit or vegetable, be promoted to students?
- Are there some theme bars or special menu days that can be offered to promote a complete meal selection? (i.e. Italian, soup/sandwich, Mexican)
- How can signage, social media, or other communication tools be used to promote selection of a complete meal?
- Which areas of your cafeteria are present in which you can build a complete meal: traditional service line, a la carte line, salad bar, or 'grab and go' option?

Say: **"It is important to vary the way that food is presented and promoted in the cafeteria to keep customers choosing complete meals."**

Talk to students about the importance of getting cafeteria staff members involved in this process. In order to rearrange foods, provide more selection, assess tray designs, create combo deals, etc., the support and cooperation of cafeteria staff members is needed.

- Have students work cooperatively with school food service staff to propose their ideas on how to further modify the cafeteria environment to increase complete meal selection.
- Students can share their list of recommendations/ideas by setting up a meeting with the Food Service Director to discuss ideas and plan to move forward.
- Schedule follow-up meetings as necessary.

Step 4: Prove

Say: **"Great job coming up with ideas for promoting the selection of complete meals in the cafeteria. The 4th and final step of the 4-Step Path to Building a Smarter Lunchroom is to 'Prove.' To wrap up our lesson we will talk about how we might do that, and what our final steps would be if we actually want to start to create changes in our lunchroom (if applicable)."**

Information for educator:

The success of this marketing intervention can be measured in several ways:

- Have students fill out a survey about why they do not take a complete meal.
- Count how many students are selecting a complete meal at lunchtime.

- Compare production records or sales data from a la carte or 'grab and go' meal lines versus number of meals sold for a week. Does the use of the salad bar vary depending on what's served on the menu in a week?
- See if more students select a complete meal after implementing Build a Healthy Tray or Create a Complete Meal signage, creating combos, or adding more options. Make sure to compare results before and after the intervention.
- See how many students respond to the cafeteria staff member who is nudging them to select a complete meal.
- Record how many students are looking at the sample plates provided and attempting to copy them or getting ideas from them.

Say: **"Once we make a change, it is important to find out if it is actually increasing the number of students making healthy choices, so using the ideas we came up with, we are going to try and 'Prove It.'"**

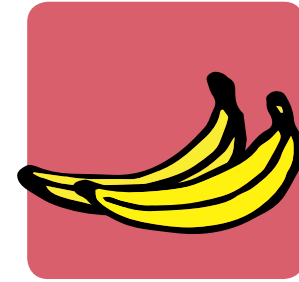
Review with the students that in order to prove something, information or data must be collected before and after the change(s).

Questions for students to respond to as a class:

- What ways can we monitor the effect of our intervention in the cafeteria so that we can see if it is effective or not in increasing complete meal choices?
- Could a student survey help to identify the barriers to selecting a complete meal or other areas of improvement? What types of questions would you ask?
- Is there another location to post signs or complete meal ideas throughout the school? Maybe outside the cafeteria doors to get students thinking about their meal?
- How can we determine which interventions are the most effective in changing student choices?

[> Assessment Tools](#)

Conduct a Taste Test



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan provides instructions for students to conduct a simple taste test, an effective Smarter Lunchrooms strategy to introduce students to new foods in a positive manner.

Smarter Lunchrooms Process:

This lesson follows the 4-Step Path to Building a Smarter Lunchroom. This lesson plan should be used after Step 1 of the 4-Step Path has been completed by one or more persons in the school where this lesson will be taught. Step 1 includes completion of the Smarter Lunchrooms Scorecard, taking photos indicated on the photo checklist, and reviewing these photos. Step 1 allows you to take an objective look at your cafeteria and service lines to help you to find opportunities to make simple changes in the lunchroom to help students make healthier choices.

Please review these resources:

> [Smarter Lunchrooms Handbook](#)

> [Montana Smarter Lunchrooms Success Stories](#)

> [Montana Educational Standards](#)

LESSON TIMEFRAME:

This lesson requires 2-3 (50-minute) class periods to complete.

LESSON OBJECTIVES

Students will:

- Learn the benefits and steps to conducting a taste test in a school classroom or cafeteria.
- Complete a taste test and discuss ways to measure the success and/or impact of a taste test.
- Discuss ways to work cooperatively in completing a taste test.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

- (Optional) Equipment to show YouTube videos (internet, screen, speakers)
- Access to a hand washing sink so students conducting a taste test can wash their hands before and during (if needed) the taste test
- Disposable food safety gloves for students to wear when conducting the taste test
- Adequate quantity of the food item to be tasted. The serving size can range from a teaspoon or tablespoon, up to an ounce per student
- Serving utensils; forks, spoons, plates, or napkins for students to use in taste test
- Use this easy Montana Taste Test “Try It, Like It, Love It,” process

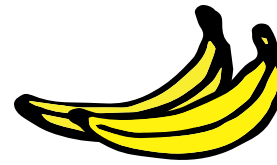
Helpful hints and further resources:

- Inform the Food Service Director about this Smarter Lunchroom lesson, and invite her/him to collaborate with you on it. Ask her/him if she/he has a specific food item or new recipe that she/he would like to be tasted. This way, she/he could prepare the food item that would be used in the taste test.
- Decide on the date and the location of the taste test. Consult with the Food Service Director if she/he will be helping to prepare the food. Consider the location – will it be done just in your classroom with your students or do you and your students want to conduct the taste test with students from another classroom or will you conduct it with the entire school population in the cafeteria? If the taste test involves elementary students, ask the Food Service Director if the school participates in the USDA’s Fresh Fruit and Vegetable Snack Program and if a fresh fruit or vegetable that will be served for a future snack could be part of a taste test.
- Create a permission slip for students to have signed by their parents to allow them to safely participate. Make sure to note all food allergies or sensitivities!

• [Conducting Taste-Testing Activities in Schools: A Guide for Teachers and Administrators](#)

Conduct a Taste Test

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement



Introduction to the Smarter Lunchrooms Movement

Say: **“Today we are going to look at ways we can make small changes to encourage students to select, eat, and enjoy healthier foods in school without eliminating their choices.”**

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?

Say: **“Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”**

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Step 1: Spot

Complete Spot and Plan steps in Class Period 1.

Review ‘Spot’ Findings - the Smarter Lunchrooms Scorecard and the photo checklist.

The Scorecard and photos may have already been completed by a school food service staff member, or a parent or community member. If not, a teacher and several students should complete this task together, asking the Food Service Director for information as needed.

Then, review the completed Smarter Lunchrooms Scorecard, and notice that: “A vegetable, fruit, or entrée taste test is offered at least once a year” is listed as a strategy. Say: **“Today we are going to look at how to motivate students to try a new food such as a unique fruit, vegetable, entrée, or grain. By offering a taste test we are helping to increase a student’s willingness to try new foods. Often, when we try a new food, we end up liking it more than we thought we would. This is based on two of the six behavioral economic principles which are Impacting Taste Expectations and Suggestive Selling, both of which help influence students to make healthier choices.”**

Information for the Educator: Why Conduct Taste Tests?

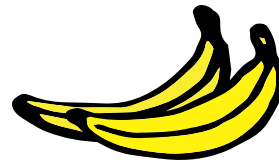
- Many people are reluctant to try new foods, especially fruits and vegetables, or foods that are unfamiliar to them.
- Tastings are a fun and non-threatening way to provide an opportunity to students to expand the variety of foods that they consume, especially nutrient-rich foods like whole grains, vegetables, or fruits.
- For some people, it takes numerous (6-21) opportunities for them to try a food before they like it. Therefore, even if they do not participate, the exposure could bring them closer to this goal.

Questions for students:

- Why do you think conducting a taste test with students is an important step to introducing them to new foods?
- What are other benefits to conducting taste tests with students in a school setting?
- How can a taste test help to expand the variety of foods a student eats? Why is expanding the variety of foods eaten important?
- Have you ever participated in a taste test in a school or grocery store?
- What are some fruits, vegetables, grains, or other foods that would be good options to offer in a taste test? Think of some new or unique foods that are being offered in the school cafeteria currently that might need to be taste tested to increase students’ acceptability of them. (Hints: kiwi, sweet potatoes, dried beans and peas like black beans or lentils, and whole grains like couscous or quinoa). Think of some Montana-grown foods that may be new foods to try. (Hint: lentils, kale, beets, squash, whole grains).
- How would the item be prepared or served in a taste test? Would we try making hummus or roasting beets? Would we offer a smoothie that may be served during breakfast or lunch? Would we prepare a vegetable to be served on the salad bar?

Conduct a Taste Test

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement



Step 2: Plan

Say: **“Now that we have reviewed the benefits of conducting a taste test and what possible foods we may want to offer in Step 1, ‘Spot,’ let’s start the 2nd step – ‘Plan.’**

Say: **“Today we will learn an easy method for conducting a taste test of a fruit or vegetable in a school.”**

Information for educator and/or the students to review:

- Review the Montana [“Try It, Like It, Love It”](#) taste test method.
- [Check out a \(1-minute\) video for conducting a taste test in the cafeteria.](#)
- Food safety practices and [good handwashing techniques](#) are important in conducting a taste test.
- See how Montana Schools are using taste testing to introduce students to a new Montana-grown food each month with the [Harvest of the Month](#) program.

Small groups:

Break students into four groups and have them discuss the important steps to follow in conducting a taste test. Assign each group two tasks related to conducting the taste test. In each group, the students will identify any other school staff, parents, or community members that they may need to collaborate with in completing their task.

Topic/tasks to be divided amongst small groups:

- Determine a location for the taste test (current classroom only, another classroom of students, or the entire cafeteria population). Have students write and send an invitation to another classroom to invite them to the taste test.
- What food will be tested? Will it be prepared in the school kitchen or Family and Consumer Science room? Will it be purchased in a ready to eat portion (i.e. a ready to eat processed food – like Montana’s own Kracklin’ Kamut)? Are there any food allergies or intolerances that limit the foods to be tasted?
- List the food safety steps that need to be followed in conducting the taste test. This could include appropriate temperatures, sanitation, knife safety, etc.
- Determine the budget for conducting a taste test that includes food, paper supplies, and food-safe disposable gloves for students distributing the “samples.”
- Review the process for the taste test. Will the students follow the “Don’t Yuck My Yum” principle and conduct a “Cheers”? How will the “tasters” be asked to taste the food so they aren’t pressured into eating it?

- How will the “tasters” record their results? Are you using the “Try It, Like It, Love It” method? Will the “tasters” write down their opinion using a ballot or by dropping a counter (dried bean) in a cup? Or will you use a program like SurveyMonkey™ to develop a survey for “tasters” to enter their responses?
- Determine the date, time, and number of students needed to conduct the taste test. Determine tasks for other students. Will they help the food service staff prepare it or tally the results? Is signage needed to promote the taste test or help the “tasters” understand how to list their responses or vote on their ballot? Think about if any of your “tasters” are non-readers.
- Determine an evaluation process by answering the following questions. How will we know that the taste test was a success? How will we know if it made any impact on motivating students to try the food again? (Hint: Step 4, “Prove It” will review ways to answer these questions.)

As a group, once the topics are discussed and the decisions are made, a Taste Test Plan can be written up.

Step 3: Do

Complete the Do and Prove steps (if time permits) in Class Period 2.

Say: **“Now let’s move towards the 3rd step in the Smarter Lunchrooms Path – which is to ‘Do’ the Taste Test.”**

Using the Taste Test Plan that was created in Step 2 – “Plan It,” have the students conduct the taste test.

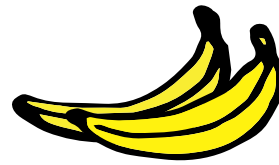
Say: **“Now that we have a Plan to conduct a Taste Test, we can assign students to the different tasks and complete the taste test.”**

Assign students to the following tasks:

- Setting up the table and area for the taste test. Wiping down the table with a cleaning and sanitizing solution. Putting out the utensils, plates, and napkins.

Conduct a Taste Test

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement



- Preparing signage (if needed) to help students score or report their responses.
- Preparing or helping to serve the food items to the students.
- Assisting the Food Service Director or staff if they are helping with the taste test.
- Preparing the “taste test ballots” or gathering the beans and “Try It,” “Like It,” and “Love It” cups. Or if using SurveyMonkey™ getting a computer and creating the survey.
- Reviewing the directions with the “tasters” to follow in tasting the food and voting by their response/ballot/bean.
- Encouraging the “Cheers” before the tasters try their food.
- Tallying the results of the responses/ballots.
- Cleaning up after the taste test is done. Storing or returning any leftover foods and paper supplies.

Say **“Now that the taste test is done, let’s go to Step 4 to discuss if it was successful.”**

Step 4: Prove

To be done at the end of Class Period 2 or in Class Period 3.

Say: **“Great job on conducting a taste test! The 4th and final step of the 4-Step Smarter Lunchrooms Path is to ‘Prove.’ To wrap up, we will talk about how we can evaluate if the taste test was a success and if it has made an impact on motivating students to try the food again. It is important to find out if doing a taste test is increasing the number of students making healthy choices, so using the ideas we came up with, we are going to try and ‘Prove It.’”**

Review with the students that in order to prove something, information or data has to be collected before, during, and after the event or change(s). Have the students tally the responses/ballots to determine the number of students that tried the item, liked the item, or loved it. Have the students invite the Food Service Director to the class to hear this discussion or share a student-developed report with the Director.

Information for educator and students:

The success of a taste test can be measured in several ways:

- Did the taste test process run smoothly? Is there anything you think we should do differently in the future?
- Did most “tasters” like or love the food?
- Did you collect information about what “tasters” did or did not like about the food product? Taste, texture, look, spice, etc.?
- Did you get any indication they will try it again?
- Do you think it will help to increase student selection and/or decrease food waste of that item when it is served in the cafeteria or at home?
- Did it provide a fun and non-threatening way to motivate a student to try a small taste of food?
- Do you think this event will motivate a student to try another new food in the future?
- Should taste tests be done at school? How often? By whom? What foods?

Class discussion:

Utilizing these questions, have a class discussion about the success and impact of the taste test. Ask the students to share their thoughts on how they felt the taste test went.

Additional questions or follow-up activities for students (as a class or in small groups):

- What did we learn from the taste test that may be helpful for the Food Service Director or parents to know? Review the data from the taste test and share it with the Food Service Director.
- How could we evaluate if the taste test that we did actually “nudged” students to make healthier choices in the lunchroom?

[> Assessment Tools](#)

Taking a Closer Look at Food Waste & Food Selection at School



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EDUCATOR INFORMATION

Smarter Lunchrooms Background:

This lesson plan allows students to take an objective look at food waste (and selection) in their lunchroom. Learn how to evaluate the effectiveness of behavioral economics strategies from the Smarter Lunchrooms Movement to decrease food waste and increase selection by measuring food waste.

Smarter Lunchrooms Process:

This lesson provides the instructions and materials for schools interested in plate waste. Once a Smarter Lunchrooms strategy has been selected (Step 1 - Spot), details planned out (Step 2 - Plan), and the strategy has been in place for 4-6 weeks (Step 3 - Do), schools can evaluate the change by measuring food selected and food wasted (Step 4 - Prove).

This lesson could best be carried out with support from a FoodCorps or AmeriCorps service member, an existing student club such as Family, Career, and Community Leaders of America (FCCLA), 4-H, or a recycling club.

Please review these resources:

- > [Smarter Lunchrooms Handbook](#)
- > [Montana Smarter Lunchrooms Success Stories](#)
- > [How to Reduce Food Waste in Schools report](#)
- > [Offer vs. Serve option](#)
- > [U.S. Food Waste Challenge and Reducing Food Waste: What Schools Can Do Infographic](#)
- > [Help Prevent Wasted Food resource](#)

> [Montana Educational Standards](#)

LESSON TIMEFRAME

Estimated total time required: 5 (50-minute) class periods and 3-6 lunch periods

- Class Period 1: 50-minutes to provide background information about food waste and why it matters.
- Homework Assignment: Students will be asked to spend a lunch period making observations in the lunchroom during mealtime.
- Class Period 2: 50-minutes to share summary of lunchroom observations and learn the “Weigh It” Method for collecting food waste.
- Lunch Periods: Four lunch periods to collect food waste (two days pre-change and two days post-change)
- Class Period 3: 50-minutes to summarize data
- Class Periods 4 and 5: develop a plan to share results and take action.

LESSON OBJECTIVES

Students will:

- Increase awareness of food waste and identify best practices used by schools to decrease food waste, especially of fruits and vegetables.
- Participate in a plate waste collection activity in the lunchroom and analyze the results.
- Analyze the results from the Smarter Lunchrooms Scorecard and identify behavioral economics strategies that schools can use to decrease food waste.
- Develop an action plan to decrease food waste and increase consumption of healthy foods in the lunchroom.
- Evaluate the strategies used to decrease food waste in the lunchroom. Discuss opportunities to collaborate with school staff (administration, food service, and custodial) to carry out the action plan to decrease food waste.

LESSON MATERIALS, PREPARATION, & ADDITIONAL RESOURCES

For this lesson, the following items will be needed:

- Equipment to show online resources, YouTube videos, and project assignments (internet, computer, screen, projector, speakers)
- Copies of the *Is Food Waste an Issue at our School?* Checklist.
- Copies of the “Weigh It” Method for Measuring Food Selection and Waste in Schools

Helpful hints and further resources:

- Talk with the Food Service Director and the principal about your plan to observe plate waste in the lunchroom and invite them to participate in developing a plan to decrease food waste using simple Smarter Lunchrooms strategies.
- Invite the Food Service Director into the classroom to share what she/he is currently doing to reduce waste in the lunchroom. Ask what she/he would like to look at with this food waste study. Is she/he concerned about entrée waste? Fruit and vegetable waste? Other areas? What ideas can she/he share regarding food waste and how to decrease it?
- Consider providing extra credit to students who eat a school meal in the lunchroom during this lesson, as it provides opportunity for hands-on observation.
- Encourage students to expand their awareness of food waste to other areas outside of school, such as at home, grocery stores, and restaurants.



Introduction to the Smarter Lunchrooms Movement

Say: “Today we are going to look at ways we can make small changes in our lunchroom to encourage students to waste less food.”

Questions for students:

- Why do you think eating healthy foods is important?
- How do you think food choices impact our health?
- We make food choices every day. What do you think influences the food-related decisions that we make on a daily basis?
- Do you think our school environment impacts our food decisions? If so, how?
- Do you think there are ways we can improve our school lunchroom environment or the lunch line itself to encourage healthier choices?
- Do you think there are ways we can design our school lunchroom environment to encourage less food waste?

Say: “Today I’m going to introduce to you the Smarter Lunchrooms Movement, which is a project that works to promote healthy eating in the lunchroom, without adding cost for schools or taking away choices for students.”

Introduce the Smarter Lunchrooms project. Consider reviewing or showing the [Smarter Lunchrooms Makeover video](#).

Let’s look at how Behavioral Economics influence behavior and choice in the cafeteria.

Summary of the Smarter Lunchrooms Movement: <https://www.smarterlunchrooms.org/sites/default/files/documents/SLM-Flyer-Inkjet.pdf>

Class Period 1

Say: “Did you know that 30 to 40% of food purchased in our country is wasted?” Why do we waste food in the lunchroom, at home or when eating out? “Why does food waste matter?”

Information for the Educator:

Food waste in the United States is a pressing problem!

- Approximately 31% of all food in the United States, or 133 billion pounds of the available food supply at the retail level is wasted.¹ This food waste represents an economic loss of approximately \$161.6 billion per day.² The average American family wastes \$2000 worth of food per year.
- While Americans throw food away, hunger remains an issue in the U.S., with an estimated 14% of households that are food-insecure.³ One in five households in Montana are at risk for hunger.
- Food waste results in detrimental consequences for the climate, water, land use, and biodiversity.⁴ The U.S. Department of Agriculture and U.S. Environmental Protection Agency have recently partnered to set the nation’s first food waste reduction goals to reduce the amount of food wasted in America by 50 percent by 2030.⁵
- A plate waste study conducted in 1998 in nine Montana schools indicated over 40% of vegetables were wasted.

These statistics could be turned into a walking quiz, multiple choice, or true/false guessing game. Post the answer choices on colored pieces of paper and hang on the walls around the classroom. Have students get up and stand by the answer they choose. How many correct answers did your students get? This activity may be a good way to assess students’ existing knowledge on this topic.

1. Buzby et al. 2014 | 2. Buzby et al. 2014 | 3. ERS USDA 2015 | 4. FAO 2013 | 5. USDA 2015



How to Reduce Food Waste in Schools:

Review this [How to Reduce Food Waste in Schools report](#) (ask students to read in class, use an activity listed below, or assign as homework before the class) and discuss the key strategies (1-4 listed below) in class.

Best Practices used by Schools to Decrease Food Waste:

1. Correct use of the [Offer vs. Serve option](#) for school meals. Offer versus Serve allows students to select foods that they want to eat as they go through the service line instead of pre-serving foods on the lunch tray.
2. Use of share tables. Share tables allow students to place unpeeled and uneaten foods on a table for other students to consume.
3. Scheduling physical activity or recess before lunch.
4. Allowing enough time for students to eat once they sit down with their tray.

The [U.S. Food Waste Challenge](#) includes challenging all K-12 schools across the country to step up with innovative new programs such as using techniques listed on [Smarter Lunchrooms Self-Assessment Scorecard](#) to help reduce food waste. The [Reducing Food Waste: What Schools Can Do Infographic](#) is helpful tool in explaining this topic.

Try using a close reading activity with your students when reviewing these reports. Ask them to read closely. Place a star by something they relate to and/or agree with. Place a question mark next to something they don't understand. Place a lightbulb or lightning bolt next to something they would like to try.

Or, divide the class into groups and give them a section of one of the above-mentioned references. Give them 10 minutes to review it and then have each group explain it to the rest of the class.

The use of simple and low-cost Smarter Lunchrooms strategies can help schools decrease food waste.

Specifically, the following strategies from the [Scorecard](#) could help decrease waste:

Focus on Fruit

- At least two types of fruit are offered.
- Sliced or cut fruit is offered.
- At least one fruit is identified as the featured fruit of the day and is labeled with a creative, descriptive name on the service line.

Vary the Vegetables

- At least two types of vegetables are offered.
- Both hot and cold vegetables are offered.
- At least one vegetable is identified as the featured vegetable of the day and is labeled with a creative, descriptive name on the service line.
- Offer unique seasoning blends for students to “dress up” their vegetables.

Student Involvement

- Students provide feedback to inform menu development.

School Community Involvement

- Elementary schools provide recess before lunch.

Additional Best Practice Strategies to Decrease Food Waste:

- School food service staff use Offer versus Serve correctly.
- Students and lunchroom supervisory staff know how Offer versus Serve works.
- Signage promotes choice “Choose one and done.”
- Students can self-serve fruits and vegetables.
- School food service staff serve smaller ($\frac{1}{4}$ cup serving) portion of fruits and vegetables to students in younger grades (K-2 or K-5). Example: Provide a “cub” portion ($\frac{1}{4}$ cup) for grades K-5. Older students (grades 6-12) receive a larger “tiger” portion ($\frac{1}{2}$ cup).
- Start a share table. Collect and measure the amount of food “saved/reused” in the share table.
- Share results with students with a large poster in the cafeteria tracking amount of food saved.
- Have a “Who Wastes the Least?” Challenge amongst grade levels.
- Have students set goals on how to waste less food at school and write on a huge poster in the lunchroom.

Say: **“Change starts with you! Challenge yourself to decrease waste in your personal life, home, and at school.”**

STUDENT HOMEWORK

Assign students to observe food waste in the cafeteria for two days each using this checklist: *Is Food Waste an Issue at our School? Checklist*

Important: Remind students to bring their *Is Food Waste an Issue at our School? Checklists* to Class Period 2.



Class Period 2

Schedule several days after Class Period 1 to allow students time to observe the lunchroom and complete the checklists.

Have a class discussion based upon the students' recent food waste observations. Break students into groups of 3-4. Ask them to compare and summarize the results from their completed *Is Food Waste an Issue at our School?* Checklists. Report back to the class.

- What foods were wasted the most?
- What did they learn from their lunchroom observations?
- Ask the students what the reasons were for the foods being wasted.

Helpful Resource: [Help Prevent Wasted Food](#)

Say: **“Our school is using Smarter Lunchrooms strategies to decrease food waste and increase selection of certain foods in the cafeteria.** (Meet with your school's School Lunch Advisory Committee (SLAC) and Food Service Director to see what strategies they are using in the lunchroom.) **To measure the success of a Smarter Lunchrooms strategy, it's important collect data BEFORE the change is made and AFTER the change has been made. This allows you to make comparisons with real data.**

Now that we have an idea what food waste looks like in our lunchroom, let's plan to study it and take action to change it. We will collect plate waste data to see if the Smarter Lunchrooms strategy worked.” (Steps 3 and 5 listed below.)

The Smarter Lunchrooms Path using plate waste to Prove It looks like this.

1. School has completed the Spot It step and has selected one food item of a school meal to measure: Fruit, Vegetable, Entrée, or Milk.
2. School selected 1-2 strategies from the Scorecard or Best Practices to put into action.
3. *Collect two days of baseline or “pre” change data.*
4. School makes a Smarter Lunchrooms strategy change. (This will be done in collaboration with the Food Service Director and her/his staff).
5. *After 4-6 weeks, collect two days of “post change” data.*
6. School redoes the Scorecard and takes photos of the changes.

Say: **“The Food Service Director and the school's School Lunch Advisory Committee have completed a Smarter Lunchrooms assessment and want to implement these strategies (list here) to decrease food waste. We will help them collect the pre and post plate waste data. We will be looking at just one food item (list here).”**

Review the “Weigh It” Method for Measuring Food Selection and Waste in Schools.

Lunch Periods

This step takes place in four lunch periods; two before and two after the 1-2 strategies are implemented in the cafeteria.

Measure the amount of food selected and wasted by following the *“Weigh It” Method for Measuring Food Selection and Waste in Schools*. Data will be recorded on the [Weigh It Data Collection Form](#).

First, prepare by completing the following steps:

1. Read and review the *“Weigh It” Method for Measuring Food Selection and Waste in Schools*.
2. Work with the Food Service Director to determine the best days and menus to sample. Important: The same menu needs to be served on the two days before and two days after the strategies are in place in the lunchroom.
3. Once the four dates are determined, assign a group of 4-5 students to complete the Weigh It Method on each date.
4. Gather supplies and prepare data collection sheets.
5. Assign someone (student, teacher, or adult mentor) to be in charge of managing the data collected.
6. Complete the [Weigh It Data Collection Form \(Excel spreadsheet\)](#)
7. Summarize the data with the [Plate Waste Summary Sheet \(Excel spreadsheet\)](#) to compare the results from the pre and post dates. Students could prepare a handout or PowerPoint Presentation so it can be shared it with the Food Service Director.



Class Periods 3, 4, & 5

We will use our data to PROVE it.

Say: **“Great job in conducting a plate waste study! The 4th and final step of the 4-Step Smarter Lunchrooms Plan is to ‘Prove It.’ To wrap up our lesson, we will talk about how we could ‘Prove It,’ and what our final steps would be if we actually want to start creating changes in our lunchroom.”**

Information for educator:

The success of the Smarter Lunchrooms strategies to decrease food waste can be measured in several ways:

- Amount of food items selected – Using your pre and post data collected in the plate waste study, see if the amount of food item selected increased or decreased as a result of the change. Did the two strategies (name them) increase student selection and/or decrease waste?
- Amount of plate waste – did the amount of food waste decrease as a result of the change?
- Did the school meals program make changes to how much food is served? Is Offer versus Serve used correctly? Did the school put up signs to promote Offer versus Serve (Choose One and Done)?
- Did the school start a share table or share basket?
- Number of students choosing salad bar – Using a counter, count the number of students making selections at the salad bar, or determine if the amounts of items selected by students have changed.
- Number of student choosing school lunch – Using meal participation records, determine the number of students participating in the school lunch program or any changes in the number of students participating in school lunch over time.

Review with the students that to prove something, information or data must be collected before and after the change(s). Use these ideas or questions to draw conclusions from the plate waste activity. Use the information from the *Data Summary Report* for this discussion.

Say:

- **“To determine if the strategies used were successful in helping students make healthier choices and waste less food, we need to review the data and talk about the results.**
- **Did our data show any change in the food choices selected?**
- **Did our data show any change in the amount of food wasted (thrown away)?”**

To summarize the lesson:

Say:

- **“Considering the strategy or strategies that were used, were they enough to decrease food waste? Are there other strategies or best practices that could be considered?**
- **Could we start a share table? Should we collect and measure the amount of food “saved/reused” in the share table.**
- **Now that we have brainstormed ideas to decrease food waste, how might we advocate for some of these changes, or be involved in making our ideas happen in the lunchroom? What partners would be needed to make these changes?**
- **How could we use the data collected to increase awareness about food waste amongst our peers, families, and community?”**
 - Students write an article for the school newspaper.
 - Students create a Photovoice essay on food waste.
 - Students create a poster showcasing the results and hang in the lunchroom.
- Invite the Food Service Director into the classroom to discuss results and plans to move forward.

[> Assessment Tools](#)



Is Food Waste an Issue at our School? Let's Find Out!

Review this assessment form. Then, spend 1-2 days in your cafeteria making observations about food waste.

Name: _____ Date: _____

School: _____

Lunch menu (list items available):

Salad bar available?

- Yes
 No

Salad bar observations:

Take notice at the service line: (Check all that apply.)

- The tray is not "pre-made" for students. Students get to choose which foods (specifically fruits or vegetables) are placed on their tray.
- Several choices of fruits and vegetables are available.
- Students serve themselves.

Take notice in the lunchroom: (Check one.)

- Students have enough time to eat once they sit down with their tray.
- Students are rushed while they're eating.

Take notice at the tray return/trash cans: (Check all that apply.)

What food items are wasted the *MOST*?

- Fruit
 Vegetable
 Entrée
 Bread/Grain
 Milk

- The most wasted food items are partially eaten.
 The most wasted food items are not eaten at all.

What food items are wasted the *LEAST*?

- Fruit
 Vegetable
 Entrée
 Bread/Grain
 Milk

- Students have the option to place unopened milks, whole, fresh fruits, and packaged items on a share table.
- If yes, how many of these items are placed on the share table? _____
- Students were throwing away food instead of putting it on the share table.
- Students can take food out of the cafeteria to eat later. (Ask Food Service Director and Principal for answer.)

Comments (Anything else that you observed that is important to food waste):

Please print.



“Weigh It” Method for Measuring Food Selection and Waste in Schools

The “Weigh It!” method is a way to measure food selection and food waste in your cafeteria. This method will be used to gather data before and after changes are made in the cafeteria. To be able to measure CHANGE in selection and waste during lunch, it is best to measure two days before a change is made and two days after a change is made. It is important that the food service team serves the exact same foods on the two days before and the two days after. You will need at least four volunteers to help each day. This method will be used to study the one food item decided on by the SLAC team. This food will be referred to as the “studied food.”

MATERIALS NEEDED:

- Rubber gloves
- Food scale
- Spatulas or scrapers
- Paper, pens, pencils, or markers
- Clipboards
- Three trash cans or several 5-gallon buckets lined with clean trash bags
- Masking tape to label the buckets
- One table
- Cleaning wipes
- Extra trash bags

(Some of these materials may be provided by the school food service. Ask the Food Service Director to provide instructions on how to use the food scale.)

“WEIGH IT!” METHOD STEPS:

A. GETTING READY:

1. Read this entire handout.
2. First, GET APPROVAL from your Food Service Director, custodian, and principal and together with them select the days when you will be implementing the “Weigh It!” Method. The lunch menu should be the same for each set of dates. Explain to them that you will need to be in the cafeteria about 20-30 minutes BEFORE the lunch period to set up and weigh the food that will be served. Request a table and three trash cans to be available for use on “Weigh It” days. Explain that all other trash cans will need to be removed from the cafeteria.
3. Make four BIG signs:
 - One sign for a table: “PLACE ALL TRAYS AND FOOD WASTE HERE.”
 - For the trash cans or buckets: label each with the name of the food (i.e. apple, green beans) you will be collecting and leave one or two labeled “ALL OTHER TRASH.”

4. Recruit adult helpers to monitor trash cans or buckets with students and assign student volunteers.
 - Adult volunteers are helpful to generally oversee how things are going, step in where needed, and to help supervise weighing.
 - One student volunteer will make announcements during lunch that all students need to put their trays and food waste on the table, NOT in the trash cans. This person will also direct traffic to make sure students put their trays and food waste on the table.
 - Three student volunteers will be behind the table separating trash.
 - The food item you are measuring will go into a clearly identified trash can. Examples include: “Fruit Waste, Vegetable Waste, Entrée Waste, Salad Bar Waste, or Milk Waste”
 - All other food waste goes in the “ALL OTHER TRASH” trash can.
 - All food waste from home-packed lunches goes in the “ALL OTHER TRASH” trash can.
5. If you would like to see an example of a plate waste study, refer to this video at this link: <http://www.montana.edu/teamnutrition/smartpleasantmeals/smartcafes.html>

B. ON MEASUREMENT DAYS:

1. Have the *Weigh It Data Collection Sheet* ready for use. Read the step by step directions on this sheet to collect the data.
2. Get one table and three trash cans from the Food Service Director and label accordingly.
 - a. Set up the table near the cafeteria exit or tray return area and place the trash cans or buckets behind the table so that students do not have access to the trash cans.
 - b. Put all the other trash cans in another room (not in the cafeteria). This way food waste will only end up in your trash cans or buckets.
 - c. Ask the Food Service Director or cook to assist you in recording the weights to complete the 10 columns on the Weigh It Data Collection Sheet. Record the menu on the sheet.
 - d. All volunteers put on rubber gloves and go to their assigned places during the lunch periods.
 - e. Before lunch service, assign one student to count the students and adults going through the service line or salad bar that contains the “studied food.” A hand clicker or a tally sheet can be used to count people.
 - f. During lunch service, assign one student to take photos of 3-4 students’ lunch trays before they start eating (just the tray, not the student) so that your team will know what lunch looked like that day. Keep the pictures with the Data Collection Sheet.
 - g. Make an announcement to each cafeteria period: **“Hi everyone, we are doing a study in the lunchroom today. Please help us out by putting all trays and food and beverage waste on this table and NOT in the garbage cans. Thanks!”**



“Weigh It” Method continued.

- h. During the lunch periods, collect the trays from the students. Thank them for giving you their trays and not throwing the food/trays away. Monitor disposal of trash during lunch service. Collect ALL TRASH from the lunch periods that are served the “studied food” you have just weighed. Separate the trash accordingly putting the “studied food” trash in the marked garbage can and all the rest of the trash/food in the “All Other Trash” garbage can.
- i. Collect and record the data on the [Weigh It Data Collection Sheet](#) and the [Data Summary Report](#).
 - i. Print and write neatly.
 - ii. Check your math twice.
 - iii. Double check the data sheet and make sure that it is complete with your team before cleaning up.
 - iv. Throw away all waste in the food buckets. Clean up all equipment.
 - v. Thank the school food service staff.

TIPS FOR DATA COLLECTION:

1. Ask the Food Service Director or Cook to weigh all food added to the pan during the meal service of the “studied food.” In the data collection sheet, add this amount of extra food added during the meal service to column 3 (Food Pre-service).
2. Use the “Tare” Method to Weigh
Place the pan on the scale, TARE the scale (tare returns the weight to zero), and then put the fruit (for example) into the pan to get the weight of the fruit.
3. Is a share table used in the cafeteria? A share table allows whole pieces of fruit or vegetables, unopened milk cartons, and or individually wrapped, un-opened packaged foods to be reused in another meal or students can take these free of charge during mealtime.

If a share table is used in the cafeteria, and has the studied food item on it, then weigh the “studied items” in the share table. Don’t count this as food waste if the food is reused. You can make note of how much “studied food” is recovered/reused at the share table.

Is there a share table for unopened milk cartons? If so, count and make note of how many milk cartons are “shared.”

- If reused, do not count these as milk waste.
- If the unopened milk cartons are thrown away, you will count this as milk waste. Count and note how many unopened cartons are collected, open the cartons, and add the milk to the waste buckets.

Say **“Now you are ready to begin collecting plate waste data in your cafeteria. Follow the steps on the Weigh It Data Collection Sheet to determine how much food is being wasted in your cafeteria!”**

A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

EXTRA: If you would like to evaluate salad bar waste:

1. Select one item from the salad bar to study.
2. Put the pan of the salad bar item on the scale, press TARE on the scale (tare returns the weight to zero), to get the weight of the one item. Ask the Food Service Director or Cook to weigh any additional amount of the studied food added to the salad bar during lunch service. Add those weights to the specific weight of the food item for Pre-Service Weight.
3. After the meal service is over, weigh the amount of the food that is left over and has not been served on the salad bar.
4. The total amount of the salad bar food item offered minus the amount of salad bar food group that is not served is the amount of salad bar item selected by students during the meal.
5. Ask the Food Service Director for the number of students and adults using the salad bar. Do all students have access to the salad bar? If yes, you would count the total number of students eating lunch. If not, you will need to count the number of students using the salad bar. Some schools have this information in their point of service counts. Others do not. You may need to count the number of students and adults using the salad bar with a hand tally clicker.

Calculations for amount selected:

total amount offered minus amount left over = the amount of salad bar food selected by students/adults

amount of salad bar food selected by students and adults divided by the total number of students/adults using the salad bar = amount of salad bar food selected per student/adult

6. Collect the salad bar item food waste from students’/adults’ trays in either garbage bag lined 5-gallon buckets or in a trash can. This is the amount of salad bar food wasted. Subtract the weight of items from a share table.

Calculations for amount wasted:

total weight of salad bar waste by students/adults divided by the number of students/adults collected = the amount of salad bar food waste per student/adult

Portions of this waste protocol were adapted from Plate Waste Protocol in Montana Schools, developed by Carmen Byker Shanks, Katie Bark, and Molly Stenberg. Portions of this protocol were also adapted from Michigan Team Nutrition’s Cafeteria “Weigh It” Resource.



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

WEIGH IT DATA COLLECTION FORM

School Name: _____

Date of Collection: _____

Number of Students Eating Lunch: _____

Grade Levels Served: _____

[> View Excel File Here](#)

	Menu Items Served	Pre-Service Pan with Food (1)	Empty Pan (2)	Food Pre-service (3)	Post-Service Pan with Food (4)	Post-Service Weight of Food (5)	Food Selected (6)	Food Wasted (7)	Food Consumed (8)	Percentage Wasted (9)
1										
2										
3										
4										
5										

Milk Data

Total Number of Cartons Collected	Chocolate (Number of Cartons Collected):			White (Number of Cartons Collected):			Number of unopened chocolate milk cartons collected
	Bucket (1)	Milk Selected (2)	Wasted Milk and Bucket (3)	Bucket (1)	Milk Selected (2)	Wasted Milk and Bucket (3)	
							Are these reused or thrown away?
							Number of unopened white milk cartons collected
	Milk Wasted (4)	Percent Wasted (5)		Milk Wasted (4)	Percent Wasted (5)		
							Are these reused or thrown away?

INSTRUCTIONS FOR MILK DATA:

1. Weight of Bucket= weigh the empty bucket
2. Weight of Milk Selected= (8 ounces) multiplied by the number of cartons collected
3. Weight of Wasted Milk and Bucket= pour all leftover milk into the bucket and weigh it (make sure to pour any full cartons that were going to be thrown away into this as well)
4. Weight of Milk Wasted= (weight of the bucket with wasted milk (#3) - weight of the bucket (#1))
5. Percent of Milk Wasted = (weight of milk wasted (#4) divided by (weight of milk selected (#2))

Instructions for Data Collection:

(organized by column)

Begin by writing down the menu item(s) or studied food(s) in the first column.

1. Weight of pan with food pre-service = weight of the pan with the studied food being served before lunch. Add the weight of any additional food that is served during the meal service to this amount.
2. Pan weight = weigh an empty similar sized pan
3. Food weight pre-service = (weight of pan with food before lunch(#1)) – (pan weight(#2))
4. Weight of pan with food post-service = weight of the pan with leftover food in it after service
5. Weight of food post-service= (weight of pan with food post-service(#4) – (pan weight(#2))
6. Weight of food selected by students = (weight of food pre-service(#3)) – (weight of food post-service (#5))
7. Food waste weight = weigh the amount of food wasted by collecting student tray waste into a bucket. Subtract the weight of the bucket from this number to get the weight of food waste.
8. Food consumed = (weight of food selected (#6)) – (food waste weight (#7))
9. Percentage wasted = (weight of food wasted (#7)) divided by (weight of food selected by students (#6)) multiplied by 100



A Lesson Plan for Engaging Students in the Smarter Lunchrooms Movement

DATA SUMMARY REPORT

School Name: _____

Type of Food Observed: _____

Dates of Intervention: _____

[> View Excel File Here](#)

PRE-INTERVENTION

Day One	
Date: _____	
Number of Students Eating Lunch	
% of Food 1 Wasted	
% of Food 2 Wasted	
% of Food 3 Wasted	
% of Chocolate Milk Wasted	
% White Milk Wasted	

Day Two	
Date: _____	
Number of Students Eating Lunch	
% of Food 1 Wasted	
% of Food 2 Wasted	
% of Food 3 Wasted	
% of Chocolate Milk Wasted	
% White Milk Wasted	

POST-INTERVENTION

Day One	
Date: _____	
Number of Students Eating Lunch	
% of Food 1 Wasted	
% of Food 2 Wasted	
% of Food 3 Wasted	
% of Chocolate Milk Wasted	
% White Milk Wasted	

Day Two	
Date: _____	
Number of Students Eating Lunch	
% of Food 1 Wasted	
% of Food 2 Wasted	
% of Food 3 Wasted	
% of Chocolate Milk Wasted	
% White Milk Wasted	

PRE/POST INTERVENTION

Average % of Food 1 Wasted in Day 1+ Day 2 Pre	
Average % of Food 2 Wasted in Day 1+ Day 2 Pre	
Average % of Food 3 Wasted in Day 1+ Day 2 Pre	
Average % of Chocolate Milk Wasted Day 1+ Day 2 Pre	
Average % of White Milk Wasted in Day 1+ Day 2 Pre	

Average % of Food 1 Wasted in Day 1+ Day 2 Post	
Average % of Food 2 Wasted in Day 1+ Day 2 Post	
Average % of Food 3 Wasted in Day 1+ Day 2 Post	
Average % of Chocolate Milk Wasted Day 1+ Day 2 Post	
Average % of White Milk Wasted in Day 1+ Day 2 Post	

Change in % Food 1 Wasted (Pre-Post)	
Change in % Food 2 Wasted (Pre-Post)	
Change in % Chocolate Milk Wasted (Pre-Post)	
Change in % White Milk Wasted (Pre-Post)	

Redesign the Lunch Line Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 1: Comprehend concepts related to health promotion and disease prevention to enhance personal health.
 - Grades 6-8 – HE1.1c, HE1.4a, HE1.16a
 - Grades 9-12 – HE1.1a & c, HE1.4c, HE1.6a
- Health Education Standard 2: Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
 - Grades 6-8 – HE2.3a
 - Grades 9-12 – HE2.3a
- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
 - Grades 6-8 – HE7.1
 - Grades 9-12 – HE7.1
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE8.2a & b
 - Grades 9-12 – HE8.2a & b

National Standards for Family & Consumer Sciences

- 1.2.3: Apply communication skills in school, community, and workplace settings.
- 1.2.4: Demonstration teamwork skills in school, community, and workplace settings.
- 1.2.7: Analyze factors that contribute to maintaining safe and healthy school, work, and community environments.
- 2.1.3: Analyze decisions about providing safe and nutritious food for individuals and families.
- 3.5: Demonstrate skills needed for product development, testing, and presentation.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 3.5.8: Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- 8.6.8: Implement marketing plans for food service operations.
- 9.3.4: Assess the influence of socioeconomic and psychological factors on food and nutrition and behavior.
- 9.3.6 Critique the selection of foods to promote a healthy lifestyle.

- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.2: Analyze data in statistical analysis when making development and marketing decisions.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of food and products.
- 13.3.2: Demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication.
- 13.3.3: Demonstrate effective listening and feedback techniques.
- 14.1: Analyze factors that influence nutrition and wellness practices across the life span.
- 14.3.4: Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

Make Fruits and Vegetables First, Fast, and Fabulous Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 1: Comprehend concepts related to health promotion and disease prevention to enhance personal health.
 - Grades 6-8 – HE1.1c, HE1.4a, HE1.6a
 - Grades 9-12 – HE1.1a & c, HE1.4, HE1.6a
- Health Education Standard 2: Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
 - Grades 6-8 – HE2.1b, HE2.2a, HE2.3a
 - Grades 9-12 – HE2.1b, HE2.2a, HE2.3a
- Health Education Standard 4: Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
 - Grades 9-12 – HE4.1
 - Grades 6-8 – HE4.1
- Health Education Standard 5: Demonstrate the ability to use decision-making skills to enhance health and safety.
 - Grades 6-8 – HE5.1a&b
 - Grades 9-12 – HE5.1a&b
- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

- Grades 6-8 – HE7.1, HE7.3
- Grades 9-12 – HE7.1, HE7.3
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE8.2a & b, HE8.3
 - Grades 9-12 – HE8.1, HE8.2a & b, HE8.3

National Standards for Family & Consumer Sciences

- 1.2.3: Apply communication skills in school, community, and workplace settings.
- 1.2.4: Demonstration teamwork skills in school, community, and workplace settings.
- 1.2.7: Analyze factors that contribute to maintaining safe and healthy school, work, and community environments.
- 2.1.3: Analyze decisions about providing safe and nutritious food for individuals and families.
- 3.5 Demonstrate skills needed for product development, testing, and presentation.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 3.5.8: Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- 8.5.12: Demonstrate professional plating, garnishing, and food presentation techniques.
- 8.6.8: Implement marketing plans for food service operations.
- 9.3.4: Assess the influence of socioeconomic and psychological factors on food and nutrition behavior.
- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.2: Analyze data in statistical analysis when making development and marketing decisions.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of foods and products.
- 13.3.2: Demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication.
- 14.1: Analyze factors that influence nutrition and wellness practices across the life span.
- 14.3.4: Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

Choose a Complete Meal Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 1: Comprehend concepts related to health promotion and disease prevention to enhance personal health.
 - Grades 6-8 – HE1.1c, HE1.4a, HE1.6a
 - Grades 9-12 – HE1.1a & c, HE1.4, HE1.6a
- Health Education Standard 2: Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
 - Grades 6-8 – HE2.1b, HE2.2a, HE2.3a
 - Grades 9-12 – HE2.1b, HE2.2a, HE2.3a
- Health Education Standard 4: Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
 - Grades 9-12 – HE4.1
 - Grades 6-8 – HE4.1
- Health Education Standard 5: Demonstrate the ability to use decision-making skills to enhance health and safety.
 - Grades 6-8 – HE5.1a&b
 - Grades 9-12 – HE5.1a&b
- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
 - Grades 6-8 – HE7.1, HE7.3
 - Grades 9-12 – HE7.1, HE7.3
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE8.2a & b, HE8.3
 - Grades 9-12 – HE8.1, HE8.2a & b, HE8.3

National Standards for Family & Consumer Sciences

- 1.2.4: Demonstrate teamwork skills in school, community and workplace settings.
- 1.2.7: Analyze factors that contribute to maintaining safe and healthy school, work, and community environments.
- 2.1.3: Analyze decisions about providing safe and nutritious food for individuals and families.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 4.4.4: Plan safe and healthy meals and snacks that meet USDA standards.

- 8.6.8: Implement marketing plans for food service operations.
- 9.3.4: Assess the influence of socioeconomic and psychological factors on food and nutrition and behavior.
- 9.3.6: Critique the selection of foods to promote a healthy lifestyle.
- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.2: Analyze data in statistical analysis when making development and marketing decisions.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of food and products.
- 14.1: Analyze factors that influence nutrition and wellness practices across the life span.
- 14.3.1: Apply current dietary guidelines in planning to meet nutrition and wellness needs.
- 14.3.4: Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

Conduct a Taste Test Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
 - Grades 6-8 – HE7.1, HE7.2
 - Grades 9-12 – HE7.1, HE7.2
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE8.1, HE8.2
 - Grades 9-12 – HE8.1, HE8.2

National Standards for Family & Consumer Sciences

- 1.2.3: Apply communication skills in school, community, and workplace settings.
- 1.2.4: Demonstrate teamwork skills in school, community, and workplace settings.
- 3.5: Demonstrate skills needed for product development, testing, and presentation.

- 3.5.4: Evaluate a product utilizing valid and reliable testing procedures.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 3.5.8: Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- 8.2: Demonstrate food safety and sanitation procedures.
- 8.5.12: Demonstrate professional plating, garnishing, and food presentation techniques.
- 9.2.5: Demonstrate practices and procedures that assure personal and workplace health and hygiene.
- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.6: Conduct sensory evaluations of food products.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of food and products.
- 13.3.2: Demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication.
- 13.3.3: Demonstrate effective listening and feedback techniques.
- 13.5.5: Demonstrate ways to organize and delegate responsibilities.

Give Foods Catchy Names Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 1: Comprehend concepts related to health promotion and disease prevention to enhance personal health.
 - Grades 6-8 – HE1.1c, HE1.4a, HE1.6a
 - Grades 9-12 – HE1.1a & c, HE1.4, HE1.6a
- Health Education Standard 2: Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
 - Grades 6-8 – HE2.1b, HE2.2a, HE2.3a
 - Grades 9-12 – HE2.1b, HE2.2a, HE2.3a

- Health Education Standard 4: Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
 - Grades 9-12 – HE4.1
 - Grades 6-8 – HE4.1
- Health Education Standard 5: Demonstrate the ability to use decision-making skills to enhance health and safety.
 - Grades 6-8 – HE5.1a&b
 - Grades 9-12 – HE5.1a&b
- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
 - Grades 6-8 – HE7.1, HE7.3
 - Grades 9-12 – HE7.1, HE7.3
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE8.2a & b, HE8.3
 - Grades 9-12 – HE8.1, HE8.2a & b, HE8.3

National Standards for Family & Consumer Sciences

- 1.2.4: Demonstration teamwork skills in school, community, and workplace settings.
- 1.2.7: Analyze factors that contribute to maintaining safe and healthy school, work, and community environments.
- 2.1.3: Analyze decisions about providing safe and nutritious food for individuals and families.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 3.5.8: Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- 8.6.8: Implement marketing plans for food service operations.
- 9.3.4: Assess the influence of socioeconomic and psychological factors on food and nutrition and behavior.
- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.2: Analyze data in statistical analysis when making development and marketing decisions.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of foods and products.

- 14.1: Analyze factors that influence nutrition and wellness practices across the life span.
- 14.3.4: Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

Taking a Closer Look at Food Waste and Food Selection at School Lesson

Health Enhancement Standards for grades 6-8 and 9-12

- Health Education Standard 1: Comprehend concepts related to health promotion and disease prevention to enhance personal health.
 - Grades 6-8 – HE 1.4a, HE 1.6a
 - Grades 9-12 – HE 1.4a, HE 1.6a
- Health Education Standard 2: Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
 - Grades 6-8 – HE 2.1 a, b, & c, HE 2.2a, HE 2.3a, HE 2.4a, HE 2.5a, HE 2.6a
 - Grades 9-12 – HE 2.1 a, b, & c, HE 2.2a, HE 2.3a, HE 2.4a, HE 2.5a, HE 2.6a
- Health Education Standard 7: Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
 - Grades 6-8 – HE 7.1a, HE 7.2a
 - Grades 9-12 – HE 7.1a, HE 7.2a
- Health Education Standard 8: Demonstrate the ability to advocate for personal, family, and community health.
 - Grades 6-8 – HE 8.1a, HE 8.2a & b, HE 8.3
 - Grades 9-12 – HE 8.1a, HE 8.2a & b, HE 8.3

Science Content Standard 1: Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.

- End of Grade 8 – Standard 1.1, 1.2, 1.3
- End of Grade 12 – Standard 1.1, 1.2, 1.3

Science Standard by grade level Earth and Space Science

- Grades 6-8 — apply scientific principles to design a method for monitoring and minimizing a human impact on the environment
- Grades 9-12 – evaluate or refine a technological solution that reduces impacts of human activities on natural systems

National Standards for Family & Consumer Sciences

- 1.2.3: Apply communication skills in school, community, and workplace settings.
- 1.2.4: Demonstration teamwork skills in school, community, and workplace settings.
- 2.1.3: Analyze decisions about providing safe and nutritious food for individuals and families.
- 3.5.5: Apply statistical analysis processes to interpret, summarize, and report data from tests.
- 3.5.8: Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- 8.6.8: Implement marketing plans for food service operations.
- 9.3.4: Assess the influence of socioeconomic and psychological factors on food and nutrition and behavior.
- 9.5.1: Analyze various factors that affect food preferences in the marketing of food.
- 9.5.2: Analyze data in statistical analysis when making development and marketing decisions.
- 9.7.7: Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of food and products.
- 13.3.2: Demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication.
- 13.3.3: Demonstrate effective listening and feedback techniques.
- 13.5.5: Demonstrate ways to organize and delegate responsibilities.
- 14.3.4: Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.

Assessment Tools for Smarter Lunchrooms Classroom Lessons

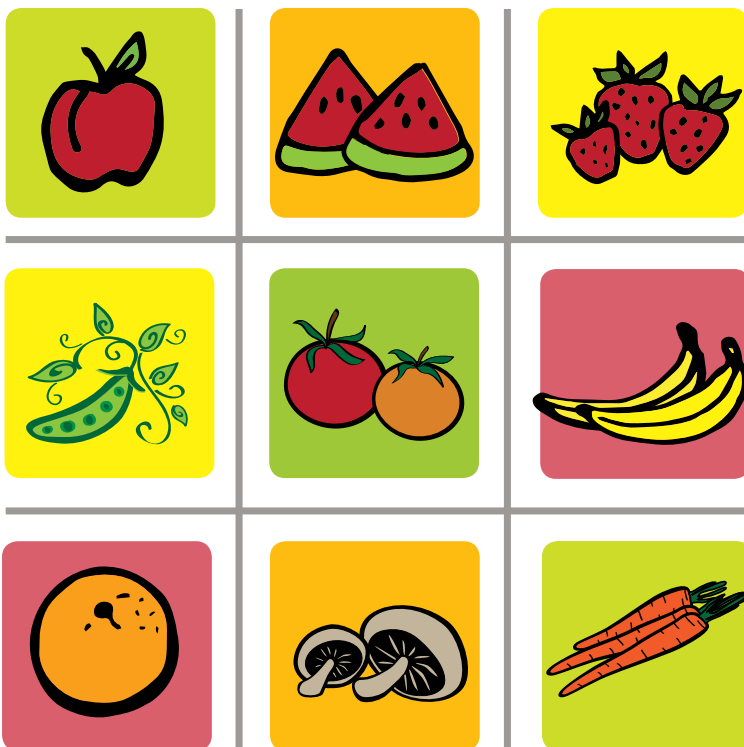
Use one of these simple assessment activities to assess if the lesson objectives were successfully met.

Think, Pair, Share:

Ask students to think about the activities they completed in this lesson, pair up with a classmate, and share their ideas/feedback about the lesson. Was there anything that surprised you in this lesson? If so, what was it? How could students be more involved in their lunchrooms? What were the pros and cons of this lesson? Ask several groups to share their responses with the class.

Build upon the concept:

Identify another setting in which the concept of behavioral economics could be applied and how. Ask students how they could design their home eating environment, a restaurant, a concession stand, or a grocery store to make the healthy choice the easy choice.



Use SurveyMonkey™ to create a short survey using the discussion questions provided at the end of each lesson. Summarize and share the survey results with students and the Food Service Director.

Use a thumb vote for the following questions to assess knowledge and opinions. Ask students to vote using the following signals: Thumbs up = Yes, Thumbs sideways = Possibly, Thumbs down = No.

Redesign the Lunch Line Lesson

- Did this lesson convince you that behavior (choices customers make) can be influenced by how the lunchroom is designed?

Make Fruits and Vegetables First, Fast, and Fabulous Lesson

- Do you think that your ideas to increase the visibility and convenience of fruits and vegetables would increase the amount of fruits and vegetables *selected*?
- Do you think that your ideas to increase the visibility and convenience of fruits and vegetables would increase the amount of fruits and vegetables *eaten*?

Give Foods on the School Menu Catchy Names Lesson

- Would you choose foods with catchy names in your school cafeteria?
- Have you noticed any creative or descriptive words used on the menus at your favorite restaurants?

Conduct a Taste Test Lesson

- Do you think a taste test is a good way to introduce new foods?
- Would you take part in a taste testing booth in your school?
- Would you help lead a taste test?

Choose a Complete Meal Lesson

- Do you think teenagers would choose a complete meal in their lunchroom if it was convenient and visually appealing?
- Would a quick 'grab and go' service line work in your school?

Plate Waste Lesson

- Are you surprised by the amount of waste generated at lunch?
- Do you think that you can reduce food waste and encourage other students to reduce food waste?

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