INTRODUCING ......

DEVELOPED AT THE OHSU BOB & CHARLEE MOORE INSTITUTE FOR NUTRITION & WELLNESS
Today’s Presentation

- Early-life nutrition impacts chronic disease risk
- Elements of Effective Nutrition Education
- Key Features of Nutrition In A Box (NIABx)
- A Look Inside the Box
- Guided Tour of 4 Selected Stations
Goals of the OHSU Moore Institute for Nutrition and Wellness

- to reduce the prevalence of chronic diseases across the lifespan
- in current and future generations
- by promoting healthy, nutrient-rich diets based on whole foods

Key areas

COMMUNITY OUTREACH
RESEARCH
CLINICAL CARE
PUBLIC POLICY ADVOCACY
Health of Tomorrow’s Moms & Kids Depends on Nutrition of Today’s Moms & Kids

Nutritional Exposures of the Egg are Trans-Generational
Key Features of NIABx

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Pediatric/Sports Dietician

Graphic Designer
Lia Miternique
Illustrator/Graphic Designer

Developed at the OHSU Bob & Charlee Moore Institute for Nutrition & Wellness
Effective Nutrition Education

**Behavior Based:** Children have the opportunity to set personal goals, take action steps, and practice making healthy choices.

**Fun/Engaging:** Youth are interested and actively involved in hands-on learning activities.

**Integrated:** Activities and strategies are integrated across the curriculum and also with the home and community environments.

Source: How to Teach Nutrition to Kids, Connie Liakos Evers, ©2012
What is NIABx?

- Self-contained enrichment curriculum
- Designed for youth ages 10-14 (Gr 4<sup>th</sup>-8<sup>th</sup>)
- Modular: each of 12 stations stands alone
- Modeled on Oregon AHEC “In a Box” series
- Non-profit program
  - all written materials/graphics are free online**
  - Box purchase reflects only cost of contents ($400 + shipping)

** Website: “Better the Future”
www.ohsu.edu/nutrition-in-a-box
Enrichment Curriculum for Middle Schoolers

**LESSON 1. My Plate Power Foods**
Station 1: Grains Fuel your Body
Station 2: Vary your Vegetables
Station 3: Focus on Fruits

**LESSON 2. My Plate Build Foods**
Station 1: Power up with Protein
Station 2: Pass the Milk, Yogurt, and Cheese, please

**LESSON 3. Winning the Balance Game**
Station 1: Focus on Fats
Station 2: All these Drinks: what do you think?
Station 3: Be an Ad Detective!
Station 4: Are you balancing your portions?

**LESSON 4. Taking Charge of your Choices**
Station 1: Fitting in Family Meals
Station 2: Snacking Success
Station 3: Food in a Box Café – Menu Board
NIABx Objectives

- Create awareness of proper nutrition via use of the MyPlate Food Guide.
- Provide hands-on games, manipulatives and interactive activities that engage students.
- Describe how media, cultural and family influences can encourage healthy eating practices at home and school.
- Explain the importance of variety and moderation in food selection and consumption.
- Track progress toward achieving short-term personal goals related to variety and moderation within healthy eating.
NIABx is Research & Standards Based

- Based on Dietary Guidelines for Americans 2015-20 and the MyPlate Food Guide
- Aligns with the current Oregon Health Education Standards and Performance Indicators (Dec 2016)
- Has been MAPPED to Oregon Health Education Standards and Performance Indicators
- Aligns with Next Generation Science Standards (NGSS)
TWO NEW PARTNERS WILL ENHANCE NIABX

SNAP-ED/OSU
- Evaluation of NIABx as an “emerging curriculum”
- Move toward listing in official suite of approved curricula for use in SNAP-ED linked schools

Oregon After School Kids (OregonASK)
- Develop a Train-the-Trainer program for NIABx
- Assist in training program delivery in after-school settings in Oregon

DEVELOPED AT THE OHSU BOB & CHARLEE MOORE INSTITUTE FOR NUTRITION & WELLNESS
Lesson Materials Included

Teachers Guide: Covers All lessons/stations

For Each Lesson
- Setup “Map”
- Lesson Plan
- Background info
- Teaching Tips
- Sample dialogue
- Resources
- Glossary

For Each Station
- Posters
- Table Tents (What to do at station)
- Student Activity Sheets (with goal setting/action steps)
- Lesson Extension/Homework Sheets
- Answer Key
- Manipulatives (in the Box)

DEVELOPED AT THE OHSU Bob & Charlee Moore Institute for Nutrition & Wellness
Food Photo Cards

- Nutrition Facts Labels on Back
- Over 100 cards/all food categories
- Used in a variety of activities in several lessons
- Options for student-created games

ORDER ONLINE: $25/pack

DEVELOPED AT THE OHSU Bob & Charlee Moore Institute for Nutrition & Wellness
Lesson 1: MyPlate Power Foods

**STATION 1**

**GRAINS**

**FUEL YOUR BODY**

Grains are rich in carbohydrates, the major source of fuel for both your brain and body.

**WHAT IS A WHOLE GRAIN?**

Whole grains contain the entire grain kernel, including the bran, endosperm and germ. Whole grains have both the outer covering (bran) and germ removed, leaving only the starchy endosperm.

**MILL YOUR OWN WHOLE GRAINS!**

Using the small hand mill on the table, take a few grains of corn or wheat and crank the handle until you have a product that resembles corn meal or whole-wheat flour.

**ANCIENT GRAINS**

Most of the corn grown in ancient times by Native Americans was dried and ground into cornmeal using a flat stone called a metate and a smaller stone called a mano (meaning hand). Today, powerful nutrients in modern-day whole grains and processed corn are lost.

**STATION 2**

**FOCUS ON WHOLE FRUITS**

**ACCORDING TO THE MYPLATE GUIDE, WHOLE FRUITS MAY BE**

- Fresh
- Canned
- Frozen
- Dried
- Whole
- Cut-up
- Puree

**FAKE FRUIT**

Can you identify the **SEVEN FRUIT IMPOSTERS** included in the cards on the table?

**FRUIT OR JUICE?**

**WHICH ONE IS MORE NUTRITIOUS?**

**STATION 3**

**VARY YOUR VEGETABLES**

The MyPlate Guide divides vegetables into five subgroups:

- Dark green vegetables
- Red & orange vegetables
- Dry beans & peas (legumes)
- Starchy vegetables
- Other vegetables

**FIND THE VEGGIES**

Can you sort the vegetable photo cards according to their subgroup?

**PLANT A VEGETABLE**
Lesson Plan 1: MyPlate Power Foods
The "eat more" groups - grains, fruits and vegetables

Summary of needed materials

<table>
<thead>
<tr>
<th>Station 1: Grains</th>
<th>Station 2: Fruits</th>
<th>Station 3: Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains Fuel Your Body poster</td>
<td>Focus on Whole Fruits poster</td>
<td>Vary Your Vegetables poster</td>
</tr>
</tbody>
</table>

**Wall**

- Table tent with instructions
- Grain photo cards
- Small hand mill
- Wheat stalk and corn kernels

**Table**

- "Grains Fuel Your Body" activity sheet
- "Use Your brain to Find Whole Grains" worksheet (for lesson extension)

- "Focus on Whole Fruits" activity sheet
- "Fruit and Vegetable Weekly Tracker" (for lesson extension)

- "Vary Your Vegetables" activity sheet
- "Fruit and Vegetable Weekly Tracker" (for lesson extension)

**Handouts**

- MyPlate paper plate

<table>
<thead>
<tr>
<th>Resources</th>
<th>MyPlate paper plate</th>
<th>MyPlate paper plate</th>
<th>MyPlate paper plate</th>
</tr>
</thead>
</table>

**DEVELOPED AT THE OHSU BOB & CHARLEE MOORE INSTITUTE FOR NUTRITION & WELLNESS**
Lesson 2: MyPlate Build Foods

STATION 1

POWER UP WITH PROTEIN

PROTEIN IS NEEDED FOR GROWTH, DEVELOPMENT, BUILDING AND REPAIR OF BODY CELLS AND TISSUES. KEY NUTRIENTS SUCH AS IRON, ZINC AND VITAMIN B12 ARE FOUND IN THE PROTEIN GROUP.

IRON
ZINC
VITAMIN B12

FIND THE PROTEIN

Can you sort the PROTEIN PHOTO CARDS into plant and animal sources?

How much do you know about protein?
Answer the questions in the PROTEIN PUZZLE.

More on Building a Strong You
Physical activity and a healthy diet are both needed for a healthy heart, strong muscles and sturdy bones. Check out the "Mix up Your Movement" track on your activity sheet for ideas.

STATION 2

PASS THE MILK, YOGURT AND CHEESE, PLEASE!

DAIRY FOODS ARE NATURALLY RICH IN CALCIUM, A MINERAL THAT IS A MAJOR COMPONENT OF BONES. OTHER FOOD SOURCES OF CALCIUM INCLUDE:

DAIRY
CERTAIN DARK GREEN VEGETABLES
FISH WITH BONES
FORTIFIED FOODS

HEALTHY BONE OR OSTEOPOROSIS?

The bone disks on the table show the four stages between a HEALTHY BONE and the bone disease known as OSTEOPOROSIS.

ACTIVITY
Measure the amount of calcium in bones at different stages of life.

DEVELOPED AT THE OHSU BOB & CHARLEE MOORE INSTITUTE FOR NUTRITION & WELLNESS
### Lesson Plan 2: MyPlate Build Foods

**The “Build Your Body” groups - protein and dairy**

#### Summary of needed materials

<table>
<thead>
<tr>
<th>Station 1: Protein</th>
<th>Station 2: Dairy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wall</strong></td>
<td></td>
</tr>
<tr>
<td>“Power up With Protein” poster</td>
<td>“Pass the Milk, Yogurt, Cheese, Please!” poster</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Table</strong></td>
<td></td>
</tr>
<tr>
<td>• Table tent with instructions</td>
<td>• Table tent with instructions</td>
</tr>
<tr>
<td>• Protein photo cards</td>
<td>• Dairy photo cards</td>
</tr>
<tr>
<td>• “Protein Pursuit Trivia” flip deck</td>
<td>• Materials to measure bone calcium at different ages and stages: white cornmeal, measuring cups, bags, marker</td>
</tr>
<tr>
<td></td>
<td>• Osteoporosis disk set</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Handouts</strong></td>
<td></td>
</tr>
<tr>
<td>• “Power up With Protein” activity sheet</td>
<td>• “Pass the Milk, Yogurt, Cheese, Please!” activity sheet</td>
</tr>
<tr>
<td>• “The Protein Scene” worksheet (for lesson extension)</td>
<td>• “Are you a BBB (Best Bone Builder)” worksheet (for lesson extension)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td></td>
</tr>
<tr>
<td>MyPlate paper plate</td>
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</tbody>
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**Developed at the OHSU Bob & Charlee Moore Institute for Nutrition & Wellness**
Lesson 3: Winning the Balance Game

STATION 1

FOCUS ON FATS

Fat is an essential nutrient and is needed to help our brains develop, keep our cells healthy and provide a source of stored energy for our body. The fat on our body helps to keep our temperature regulated and also cushions our vital organs.

EXAMPLES OF HEALTHY FATS

ACTIVITY
Sort the In-A-Box photo cards on the table into sources of HEALTHY FATS and LESS HEALTHY FATS.

EAT LESS
High fat meats, high fat dairy products, coconut oil, and palm oil; AVOID FOODS made with partially hydrogenated vegetable oils (trans fat).

STATION 2

ALL OF THESE DRINKS: WHAT DO YOU THINK?

STATION 3

BE AN AD BUSTER!

FOOD ADVERTISEMENTS ARE OFTEN MISLEADING AND CONFUSING.
MOST FOOD ADS ARE FOR UNHEALTHY FOODS SUCH AS:

GreasY FAST FOOD
SUGARY BEVERAGES
HIGH IN FATS
HIGH IN SUGAR
HIGH IN SODIUM

TRUE OR FALSE

Can you identify whether food ads are misleading?

STATION 4

ARE YOU BALANCING YOUR PORTIONS?

APPROXIMATE AND EASY SERVING GUIDES:

1 CUP PORTION OF FOOD

1 TABLESPOON

1 ½ OUNCES OF CHEESE

3 OUNCE PORTION OF COOKED MEAT, FISH OR Poultry

EXAMPLE

There are four cubes of sugar in one sugar cube.

One serving of the fruit drink at right has 20 grams of sugar.

Divide by four to get the number of sugar cubes in this drink.

20 ÷ 4 = 5 sugar cubes

Place five sugar cubes beside this photo card.
Lesson 4: Taking Charge of your Choices

STATION 1

FITTING IN FAMILY & SHARED MEALS

MEALTIME

THINK ABOUT HOW YOU CAN MAKE SHARED MEALS HAPPEN. THE BENEFITS WILL BE WORTH IT!

VISIT FOOD HERO FOR HEALTHY, QUICK, AND BUDGET FRIENDLY RECIPES

Cook Together:
• Cooking together helps make mealtime happen. When everyone shares the load, it is easier to do, and the food may even taste better!
• Use the Food Guide as your guide to cooking a Healthy meal. Plan meals that include at least half of foods from the main food groups: dairy, grains, meat, vegetables, and fruits.

Eat Together:
• Plan when you will eat together. It can be breakfast, lunch, dinner, or even a snack. Try to share meals at least twice times each week.
• Meal planning helps everyone to learn to make healthy choices.

This information comes from the Nutrition Council of Oregon and Oregon Health Authority. Learn more by searching for Council of Oregon family meals initiative.

STATION 2

SNACKING SUCCESS!

START WITH A FRUIT OR VEGETABLE

ADD AT LEAST ONE MORE FOOD GROUP INCLUDING DAIRY, PROTEIN OR WHOLE GRAINS

HEALTHY SNACK EXAMPLES

STATION 3

FOOD IN-A-BOX CAFÉ
OF YOUR FOOD SERVED IN A BOX!

MENU

SANDWICHES & SOUPS

ENTRÉES, SALADS & SIDES

DESSERTS

BEVERAGES

• Tuna Puff Sandwiches with Chopped Tomatoes
• Raspberry Sorbet
• Apple Slap with Ice Cream
• Pie of the Day
• Fresh Fruit Salad
• Yoplait topped with Berries and Peanuts

• Milk
• Sparkling Water
• Skim Milk
• Low-Fat Greek Yogurt
Lesson 4 example -
In A Box Cafe

FOOD IN-A-BOX CAFE
ALL OF YOUR FOOD SERVED IN A BOX!

ENTREES
- Double Battered Fried Fish and Chips
- Broiled Cod Fillet with Lemon Zest
- Spicy Beef and Brown Rice
- Spaghetti and Meatballs
- Grilled Chicken on a bed of Fresh Salad

VEGETABLES, SALADS & SIDES
- Fresh Siouxs
- Maximal Sweet Potatoes
- Grilled Asparagus with Parmesan
- Kale Salad with Balsamic Vinaigrette
- Roasted Sweet Potato Wedges
- Double Battered Onion Rings
- Three Bean Salad with Olive Oil and Vinegar
- Baked Potatoes
- Corn on the Cob
- Quinoa Salad with Fresh Herbs
- Crock's Green Beans
- Steamed Garden Veggies
- Sides of Steamed Rice

MAKING CHOICES AT THE FOOD IN-A-BOX CAFE

WELCOME TO THE FOOD IN-A-BOX CAFE! USE THE MENU TO ANSWER THE FOLLOWING QUESTIONS.

1. Name three foods from the menu that contain whole grains.
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. The menu doesn’t indicate the size of portions. Pretend that you are served a very large portion of one of the menu items. Can you describe a good strategy to avoid overeating?

1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. __________________________________________

NOT SO FAST... MAKE A GAME PLAN FOR EATING OUT

RESTAURANT: Burrito Bowl

FOOD ITEM | CALORIES | FAT GRAMS | FOOD GROUPS
--- | --- | --- | ---
Grilled Chicken with all - 2 tsp all oil | 150 | 0 | 3 different food groups
Shredded Cheese | 100 | 0 | 1 portion
Lettuce and tomato | 25 | 0 | 1 portion
Omelet, grilled - 6 oz | 150 | 12 | 1 portion
TOTALS: | 211 | 21 | 4 different food groups

HEALTHY NACHOS
Try out this “fast food at home” recipe on your countertops!
1. Set a large bowl of corn tortilla chips on your counter. Try a mixture of blue and yellow corn.
2. Prepare small bowls of toppings such as refried or black beans, shredded cheese or corn, pickled onions, salsa, diced tomatoes, avocado, salsa, dill, shredded lettuce, baby spinach leaves, etc.
3. Let everyone assemble their own nacho plate.
Guided Tour of Four NIABX Stations

4 Tables: 1 Station per Table
4 Groups:

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Row 1</td>
<td>= Row 2</td>
<td>= Row 3</td>
<td>= Row 4</td>
</tr>
<tr>
<td>Start at Table 1</td>
<td>Start at Table 2</td>
<td>Start at Table 3</td>
<td>Start at Table 4</td>
</tr>
</tbody>
</table>

TABLE LAYOUT

Eg LESSON 1: Station 2

<table>
<thead>
<tr>
<th>Lesson 1 Tchr Guide</th>
<th>Activity Sheets</th>
<th>Homework Sheets</th>
<th>Answer Sheets</th>
<th>Poster</th>
<th>Table Tent</th>
<th>Hands-on items</th>
<th>Lesson 1 Tchr Guide</th>
<th>Activity Sheets</th>
<th>Homework Sheets</th>
<th>Answer Sheets</th>
</tr>
</thead>
</table>

- Will announce time for table change at 10 min intervals
- For general questions, see Susan Bagby at podium
Website: “Better the Future”
www.ohsu.edu/nutrition-in-a-box