Fit 4 Kids + Greater Richmond Coalition for Healthy Children

How Much Sugar Am I Drinking?

To find out how much sugar is in your drink, read the label and do some math:

1. How many grams of sugar are in a serving? _____

2. How many servings are in the container? _____

3. Times the number of grams per serving
   by the number of servings in the container: _____

* 4 grams of sugar = 1 teaspoon of sugar *

4. Divide the total grams of sugar by 4 to get
   the number of teaspoons of sugar in the drink: ☐

5. Measure out that many teaspoons of sugar into a cup!

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

THIS CERTIFICATE IS AWARDED TO:

_____

FOR BECOMING A SAVVY FOOD DETECTIVE, A HEALTHY CHEF, AND A SMART EATER.

AN INITIATIVE OF:

GREATER RICHMOND Coalition FOR Healthy Children

_____

AWARDED ON:

_____

AWARDED BY:

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

FACILITATOR'S GUIDE

OVERVIEW

Food Explorers is a five-week course aimed at making children savvy consumers of food. Student detectives investigate the impact of too much sugar, salt, and fat in their diets, and uncover the tactics of food marketing, portion distortion, and highly-processed foods. Each week, children enjoy a new culinary adventure in the kitchen—cooking up healthy snacks, breakfasts, lunches, and dinners. Through Food Explorers, children learn to examine their own food choices and to make smart decisions on how and what to eat.

Food Explorers was created by the Greater Richmond Coalition for Healthy Children and made possible by the CarMax foundation.

SESSION 1:

What's in my snack?

- Investigating highly-processed foods marketed as "healthy"
- Making fun, flavorful snacks

SESSION 2:

What's in my cup?

- Investigating sugar-sweetened beverages
- Making delicious drinks

SESSION 3:

What's on my plate?

- Investigating food groups and what makes a balanced meal
- Making power-packed breakfasts

SESSION 4:

What's in my Big Mac?

- Investigating fast food restaurants and portion distortion
- Making lip-smacking lunches

SESSION 5:

What's for dinner?

- Investigating how salt sneaks into food
- Making a meal to share with family and friends
- Food Explorers graduation

WELCOME!

Thanks for your interest in facilitating a Food Explorers course. This guide will give you everything you need to know to have a meaningful, successful experience.

All documents referenced in the guide can be found online at grfit4kids.org/what-we-do/food-explorers/

The information and documents are meant to serve as a guide, but please adapt the material to meet the unique needs of your students and situation.

Hope you enjoy the Food Explorers adventure!

KEY MESSAGES TO BE LEARNED IN FOOD EXPLORERS

SESSION 1

- Real food is found in nature, not processed too much, and filled with nutrients to make you healthy.
- Highly-processed food is made in a factory, stripped of most of its nutrients, contains too much sugar, salt, and/or fat, and has many artificial ingredients.
- The more a food is processed, the less healthy it is.
- Food companies try to trick kids (and their families) into thinking highly-processed foods are healthy.
- Don't be fooled by packaging with super-heroes, exaggerated claims, and asterisks *(the little star that leads to information companies don't want you to see).
- Read labels closely, and try not to eat foods that have lots of ingredients you can't pronounce.
- Do your best to snack on real foods that you make yourself.

SESSION 2

- Companies spend a fortune marketing sodas to young people.
- Athletes don't become great by drinking soda (even though it looks that way in the commercials).
- Soda slows you down!
- Sugar gives you a big burst of energy but then makes you crash.
- When you drink sugar, your brain can't tell you that you're getting full.
- Sugar-sweetened beverages are the largest contributor to childhood obesity in the USA.
- In addition to weight gain, too much sugar can cause diabetes and tooth decay.
- Eating or drinking too much sugar makes it difficult to concentrate at school.
- There's a difference between natural sugars (found in fruits and vegetables) and added sugar. Natural sugar is combined with fiber and nutrients your body needs. Added sugars have ZERO benefit.
- Food with zero benefits (no nutrients) are called EMPTY CALORIES.
- A calorie is a measurement of energy and a young person should consume 1600 to 1800 calories a day.
- A Super Big Gulp has 572 calories—more than a meal should have!
- It's OK to have a sugar-sweetened beverage sometimes, but think of it as a dessert, not a drink.
- It's great to hydrate with water.

SESSION 3

- A healthy breakfast is essential to a great day!
- A winning breakfast includes protein, whole grains, fiber, and not too much added sugar.
- Whole grains are different than refined grains—they are more nutritious and give you energy for longer.
- You need at least 5 servings of fruits and vegetables each day. Try to eat a wide variety of colors...eat a rainbow!
- MyPlate can help you create balanced meals.

SESSION 4

- Fast food should be a treat, not a regular part of our diet.
- Fast food restaurants spend billions of dollars trying to convince young people to eat unhealthy food.
- Fast food restaurants use portion distortion—the amount of food served is much more than you need in a meal.
- Fast food is high in calories, salt, and the harmful kind of fat.
- A small amount of the right kind of fat is good for our bodies, but too much of the wrong kinds of fat will lead to heart disease.
- One McDonalds meal has more fat than children should eat in an entire day!
- If you do go to a fast food restaurant, make smart choices—drink water, don't order a large size of anything, and try fresh fruit or veggies if available.

SESSION 5

- Too much salt, or sodium, can be hard on our health.
- Salt makes our body hold on to water, which puts extra pressure on our heart and can cause high blood pressure.
- Try to choose products that are low-sodium.
- Herbs and spices are a great way to flavor food instead of using too much salt.
- Eating home-cooked foods is a smart way to limit salt in your diet.
- Have fun making foods at home!

PHILOSOPHY OF FOOD EDUCATION

Food Explorers was created to approach food education in a fun, interactive, playful way that empowers children. Teaching people about nutrition and what they "should eat" can be really boring and even shameful. It is important for facilitators to not be preachy and patronizing. Avoid phrases such as "this type of food is bad for you" and "you shouldn't try to eat this type of food." It is more helpful to say "this is a sometimes food...it's ok to eat it occasionally, but be thoughtful about it." Be sensitive to children's situations, and remember that they aren't the main decision makers when it comes to purchasing and providing food. Food Explorers should give children the knowledge and capacity to make informed choices when they can. And most of all, Food Explorers should teach children that healthy food can be delicious and fun!

TIPS FOR TEACHING

- Make learning fun, interactive, and memorable
- Be empowering, not discouraging
- Emphasize key messages
- Try not to be preachy
- Avoid phrases like "that food is bad for you" and "you shouldn't eat that type of food"
- Use phrases like "that is a sometimes food"
- Inspire children to become informed eaters
- Recognize and respect children's limited choices of food
- Give students strategies and skills for making smarter choices when they can

CRITERIA FOR FOOD EXPLORERS COURSE

- Partner with an after-school program
- Ten to fifteen students enrolled
- Students in 4th or 5th grade, 10 and 11 year-olds. Students younger than 10 have a difficult time focusing and grasping the complex concepts taught in Food Explorers. Students much older than 11 are more set in their food preferences and are not as eager to try new foods. Ten and eleven-year-olds are the prime target of Food Explorers.
- One facilitator and two additional assistants to run the course
- One point person at the partner organization to coordinate details with the students
- Each session lasts for 75 to 90 minutes.
- The course does not need to be held in a kitchen, but you will need a sink. A stove and oven would be useful, but not necessary (Fit4Kids has transportable appliances).
- You will need a space large enough to have discussions, investigation activities, and cooking. There should be chairs for all students and multiple tables.
- Food Explorers can be taught once a week for five weeks or everyday for a week.

COSTS TO RUN THE COURSE

The food for each session is approximately $50. An entire Food Explorers course can therefore be done for $250. The food costs can be less if using simpler recipes. And the sessions can also be done without any cooking at all.

RECIPES

Food Explorers was first designed during the winter and the chosen recipes reflect that. But feel free to choose recipes that meet the needs and taste buds of your specific group of students. There are a range of recipes posted on the Food Explorers website, including simple or more complex recipes, along with recipes for warmer months of the year. And there are a host of other kid-friendly, healthy recipes online at:

- weelicious.com
- chopchopmag.org
- superhealthykids.com
- myplate.gov
- jamieoliver.com/us/foundation/jamies-food-revolution/recipes
- chefannfoundation.org/for-parents/home-recipes/

GUIDELINES FOR CHOOSING INGREDIENTS

- As much as possible, buy food items that students and their family will be familiar with—generics, store brand, etc.
- Try not to buy foods that are inaccessible to students and their families—organic, free range, etc.
- It is ok to occasionally highlight a new type of food to stretch students' culinary imagination and taste buds!

SESSION FORMAT

Each Food Explorers session has 3 main components:

DISCUSSION INVESTIGATION COOKING

The Session Guide for each session can be found online at: grfit4kids.org/what-we-do/food-explorers/

Timing breakdown for a 90 minute Food Explorers session:

- Discussion: 15 minutes
- Investigation: 25 minutes
- Cooking, eating, and wrap up: 50 minutes

AGENDA:

- Fill out nametags and take attendance
- Welcome
- Review what students learned in last session and ask about their exploration at home.
- Discussion
- Investigation
- Cooking
- Always come back together at the end of the session to taste the foods
- Discuss what they learned and review the key messages
- Exploration at home: Give students assignments to explore at home

SETTING UP FOR EACH SESSION

Put chairs in a circle for discussion (keeps children away from distractions).

Have three different tables for investigations activities (one for each group).

Set up tables for cooking (the more space the better).

Each cooking station should have:

- A copy of the recipe for each student
- All of the ingredients needed to make the recipe
- All of the equipment needed to make the recipe
- Waste bin
- Dirty dishes bin
- Roll of paper towels
- Dish towel

Have an adult with each group to supervise.

Have something to keep students focused during down time. If there is no more cooking or cleaning up to do, students can enjoy looking at food games, cookbooks, food books, or watching food-related videos.

BEFORE THE FIRST SESSION:

- Set the dates and times for all five sessions of Food Explorers.
- Send home a permission slip to all students' parents which includes information about any allergies as well as permission to take photos during the course (found on the Food Explorers website at the end of the facilitator's guide).
- Make an attendance roll with all the students' names.

TIME COMMITMENT TO RUN THE COURSE

For each session, an average amount of time required:

- 30 minutes reviewing materials and deciding on recipe
- 30 minutes of shopping for food
- 30 minutes of set up time in the classroom
- 90 minute session
- 30 minutes of clean up time afterwards

Total = 3.5 hours per session

FOOD EXPLORERS BIN CONTENTS

For each class, bring the:

- Admin bin
- Cleaning products bin
- Paper/plastic products bin
- Bin for the specific session

ADMINISTRATIVE BIN

- Name tags
- Sharpies (for nametags)
- Pens
- Blank paper
- Clip boards
- Magnifying glasses
- Markers (for MyPlate activity)
- Scissors
- DVDs
- Tape
- Promotional material
- Cookbooks, Food Book, Food Card Games

CLEANING PRODUCTS BIN:

- Disinfectant wipes (to wipe down surfaces)
- Disinfectant multi-purpose cleaning spray
- Paper towels
- Wipes
- Hand soap
- Dish soap
- Garbage bags

PAPER / PLASTIC PRODUCTS BIN:

- Plates (big and small)
- Drinking cups
- Sample cups
- Napkins
- Forks, knives, spoons
- Table clothes
- Zip lock bags (big and small)
- Tinfoil
- Take-away containers

SESSION #1 BIN

- Fruit by the Foot
- Fruit snacks
- Doritos, Cheetos, Fritos, Lays potato chips
- Granola bars and other highly-processed snacks
- Processed food cards

SESSION #2 BIN

- 10 to 15 sugar-sweetened beverages: Coke, Mountain Dew, Fanta, Vitamin Water, Gatorade, orange juice, apple juice, chocolate milk, etc.
- Super Big Gulp, Big Gulp, and Gulp cups
- Granulated sugar
- Snickers candy bars
- Plastic cups
- Teaspoons for measuring
- Rethink Your Drink cards
- Sugar Shocker cards
- Sugar calculation sheets
- Rev Your Bev posters
- 95210 handouts

SESSION #3 BIN

- Unhealthy breakfast options such as Coco Puffs, Fruit Loops, Lucky Charms, and Trix cereals, donuts and poptarts

SESSION #4 BIN

- 3 sets of McDonald meals—one for each group of students
- Each set contains the packaging of 1 Big Mac, 1 large fries, 1 large chocolate shake
- Other fast food packaging, toys, and crowns
- Portion Distortion cards

BASIC RULES OF COOKING

- Wash your hands right before you start.
- Make sure your work space is clean.
- Read through the entire recipe first.
- Make sure you have all the ingredients.
- Make sure you have all the correct equipment.
- Follow directions carefully.
- Ask an adult if you don't understand something.
- Don't rush.
- No running.
- Be careful—equipment can be dangerous.
- Only use white plastic knives (metal knives are for teachers only).
- Put dirty items in bins for washing.
- Clean up messes right away.
- Have fun!

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

PLEASE JOIN US

for a celebration dinner to hear about and taste all of the interesting things your child has learned in Food Explorers.

DATE: _____

TIME: _____

PLACE: _____

_____

_____

AN INITIATIVE OF:

GREATER RICHMOND Coalition FOR Healthy Children

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

DETECTIVES' DISCOVERIES

SESSION 1

What's in my snack?

- Investigating highly-processed foods marketed as "healthy"
- Making fun, flavorful snacks

- Real food is found in nature, not processed too much, and filled with nutrients to make you healthy.
- Highly-processed food is made in a factory, stripped of most of its nutrients, contains too much sugar, salt, and/or fat, and has many artificial ingredients.
- The more a food is processed, the less healthy it is.
- Food companies try to trick kids (and their families) into thinking highly-processed foods are healthy.
- Don't be fooled by packaging with super-heroes, exaggerated claims, and asterisks *(the little star that leads to information companies don't want you to see).
- Read labels closely, and try not to eat foods that have lots of ingredients you can't pronounce.
- Do your best to snack on real foods that you make yourself.

SESSION 2

What's in my cup?

- Investigating sugar-sweetened beverages
- Making delicious drinks

- Companies spend a fortune marketing sodas to young people.
- Athletes don't become great by drinking soda (even though it looks that way in the commercials).
- Soda slows you down!
- Sugar gives you a big burst of energy but then makes you crash.
- When you drink sugar, your brain can't tell you that you're getting full.
- Sugar-sweetened beverages are the largest contributor to childhood obesity in the USA.
- In addition to weight gain, too much sugar can cause diabetes and tooth decay.
- Eating or drinking too much sugar makes it difficult to concentrate at school.
- There's a difference between natural sugars (found in fruits and vegetables) and added sugar. Natural sugar is combined with fiber and nutrients your body needs. Added sugars have ZERO benefit.
- Food with zero benefits (no nutrients) are called EMPTY CALORIES.

AN INITIATIVE OF: GREATER RICHMOND Coalition FOR Healthy Children

SESSION 2 (CONTINUED)

- A calorie is a measurement of energy and a young person should consume 1600 to 1800 calories a day.
- A Super Big Gulp has 572 calories—more than a meal should have!
- It's OK to have a sugar-sweetened beverage sometimes, but think of it as a dessert, not a drink.
- It's great to hydrate with water.

SESSION 3

What's on my plate?

- Investigating food groups and what makes a balanced meal
- Making power-packed breakfasts

- A healthy breakfast is essential to a great day!
- A winning breakfast includes protein, whole grains, fiber, and not too much added sugar.
- Whole grains are different than refined grains—they are more nutritious and give you energy for longer.
- You need at least 5 servings of fruits and vegetables each day. Try to eat a wide variety of colors...eat a rainbow!
- MyPlate can help you create balanced meals.

SESSION 4

What's in my Big Mac?

- Investigating fast food restaurants and portion distortion
- Making lip-smacking lunches

- Fast food should be a treat, not a regular part of our diet.
- Fast food restaurants spend billions of dollars trying to convince young people to eat unhealthy food.
- Fast food restaurants use portion distortion—the amount of food served is much more than you need in a meal.
- Fast food is high in calories, salt, and the harmful kind of fat.
- A small amount of the right kind of fat is good for our bodies, but too much of the wrong kinds of fat will lead to heart disease.
- One McDonalds meal has more fat than children should eat in an entire day!
- If you do go to a fast food restaurant, make smart choices—drink water, don't order a large size of anything, and try fresh fruit or veggies if available.

SESSION 5

What's for dinner?

- Investigating how salt sneaks into food
- Making a meal to share with family and friends
- Food Explorers graduation

- Too much salt, or sodium, can be hard on our health.
- Salt makes our body hold on to water, which puts extra pressure on our heart and can cause high blood pressure.
- Try to choose products that are low-sodium.
- Herbs and spices are a great way to flavor food instead of using too much salt.
- Eating home-cooked foods is a smart way to limit salt in your diet.
- Have fun making foods at home!

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

OVERVIEW

Food Explorers is a five-week course aimed at making children savvy consumers of food. Student detectives investigate the impact of too much sugar, salt, and fat in their diets, and uncover the tactics of food marketing, portion distortion, and highly-processed foods. Each week, children enjoy a new culinary adventure in the kitchen—cooking up healthy snacks, breakfasts, lunches, and dinners. Through Food Explorers, children learn to examine their own food choices and to make smart decisions on how and what to eat.

Food Explorers was created by the Greater Richmond Coalition for Healthy Children and made possible by the CarMax foundation.

SESSION 1

What's in my snack?

- Investigating highly-processed foods marketed as "healthy"
- Making fun, flavorful snacks

SESSION 2

What's in my cup?

- Investigating sugar-sweetened beverages
- Making delicious drinks

SESSION 3

What's on my plate?

- Investigating food groups and what makes a balanced meal
- Making power-packed breakfasts

SESSION 4

What's in my Big Mac?

- Investigating fast food restaurants and portion distortion
- Making lip-smacking lunches

SESSION 5

What's for dinner?

- Investigating how salt sneaks into food
- Making a meal to share with family and friends
- Food Explorers graduation

PARENT/ GUARDIAN PERMISSION

Dear Parents/Guardians,

We are excited to have your child participate in Food Explorers—a five-session course to inspire young people to make smarter decisions about what they eat.

Dates: _____

Time: _____

Place: _____

Children will be cooking and eating a wide-range of healthy food at each Food Explorers session. Please list below any known allergies your child has:

_____

_____

_____

_____

☐ I GIVE PERMISSION for my child to participate in the five-session Food Explorers course—which involves chopping, preparing, cooking, and eating healthy food.

☐ I HAVE INFORMED The Greater Richmond Coalition for Healthy Children of any known allergies my child has, and GIVE PERMISSION for my child to eat any other food not listed as an allergen.

Occasionally, The Greater Richmond Coalition for Healthy Children and Fit4Kids will use photos of program participants in promotional materials. Photos on any of these materials would not identify children by name.

☐ I GIVE PERMISSION for my child's image to be used on the Fit4Kids and Coalition website and in other promotional materials.

FOR ANY QUESTIONS, PLEASE CONTACT:

Bethany Brady Spalding
The Greater Richmond Coalition for Healthy Children
224.612.1040
Bethany@grfit4kids.org

Child's Name:

_____

Parent/Guardian Signature:

_____

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

SESSION 1: WHAT'S IN MY SNACK?

Investigating highly-processed foods marketed as "healthy."

Making fun, flavorful snacks.

KEY MESSAGES:

- Real food is found in nature, not processed too much, and filled with nutrients to make you healthy.
- Highly-processed food is made in a factory, stripped of most of its nutrients, contains too much sugar, salt, and/or fat, and has many artificial ingredients.
- The more a food is processed, the less healthy it is.
- Food companies try to trick kids (and their families) into thinking highly-processed foods are healthy.
- Don't be fooled by packaging with super-heroes, exaggerated claims, and asterisks *(the little star that leads to information companies don't want you to see).
- Read labels closely, and try not to eat foods that have lots of ingredients you can't pronounce.
- Do your best to snack on real foods that you make yourself.

PREPARATION:

- Print copies of the pre-test survey for each student.
- Print copies of the recipe for each student.
- Buy ingredients for Powerhouse Pumpkin Muffins
- Read Exposed: Fruit by the Foot www.teacheatlove.com/2013/09/exposed-fruit-by-foot.html

EQUIPMENT NEEDED:

- ☐ Session #1 bin
- ☐ Magnifying glasses from Admin Bin
- ☐ Processed Food Cards
- ☐ Mixing bowls
- ☐ Spoons for mixing
- ☐ Measuring cups and measuring spoons
- ☐ Can opener
- ☐ Oven mitts
- ☐ Muffin tins (large if using regular oven, small if using convection oven)
- ☐ Convection oven (if no regular oven on site)

SET UP:

- Display highly-processed foods on a large table. Set out magnifying glasses on table too.
- Set up 3 different cooking stations, one for each group with all of the equipment and ingredients necessary.

WELCOME

- Introductions: Tell us your name, age, and if you could be any vegetable, what would it be and why?
- Administer the Pre-program Questionnaire.

DISCUSSION

When you're hungry and need a snack, what do you eat?

Chips, soda, granola bar, candy bar, fruit snacks, etc.

Why do you choose those foods?

Quick, easy, convenient, taste good, they are in my cupboard at home, they are cheap at 7-11 or corner shop, etc.

How are these snacks made?

Explain: A lot of snack foods are highly-processed. That means they are made by machines in factories. These snacks may have started as a real food found in nature, but they have been changed so much that you can hardly recognize the food anymore.

Look at examples from the Processed Food Cards:

- An ear of corn turns into a bowl of colorful Froot Loops cereal.
- Brown rice turns into a marshmellowy Rice Krispies treat.
- An orange turns into a can of Fanta soda.

When food is made with a lot of machines, it starts to taste strange. So scientists add a lot of sugar, salt, and/or fat to make it taste good to you. They also add many other ingredients so that highly-processed food can last a long time at the store and even longer on your cupboard shelves.

Do you think highly-processed snacks are the best food to keep you healthy?

Explain: The closer the food is to its natural state, the more nutrients it has. Processing food takes away its nutrients.

Highly-processed foods aren't very healthy, but they have PACKAGING. And food companies put all sorts of funny things on packaging to convince you that their product is good for you.

INVESTIGATION

Have students look at the table filled with highly-processed foods. Let them pick up the items and explore the packaging. Pass out magnifying glasses for them to look at the information up close.

Explain: Some food companies think that kids aren't very smart; they think that they can trick kids into believing that junk food is actually healthy food.

How do food companies trick kids?

Pictures of athletes, super heroes, or famous characters on the package—sometimes there isn't even a picture of the actual food on the package.

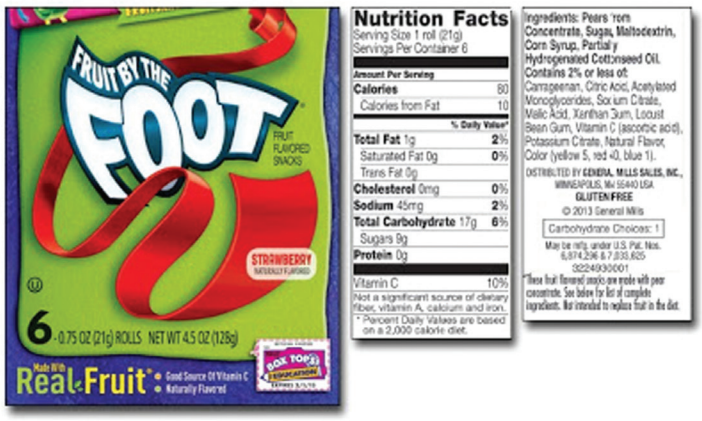
Exaggerated claims: The Cheetos package says, "Made with real cheese." It might have a very small amount of dried cheese powder, but Cheetos are mostly made with artificial dyes and fake flavorings. Fritos are "corn chips." Fresh corn on the cob can be good for you, but highly processed corn turned into chips are a different story!

A Healthy ingredient smothered in not-so-healthy ingredients: Granolas bars are made with oatmeal, which is a healthy whole-grain, but they are covered in chocolate and marshmallows—which make it a dessert, not a healthy snack.

Rewards and contests: Free movies, toys, video games, and other rewards are advertised on the food packaging. For example, the Doritos package announces a contest to win games for your Xbox.

Asterisks: That little tiny star. Food companies make big claims on the front of products but then you have to look on the back to see the small print. Small print is important information that food companies don't want you to see. Real fruit doesn't need an asterisk!

For example:



On the front package of Strawberry Fruit by the Foot, it says:

STRAWBERRY—NATURALLY FLAVORED
MADE WITH REAL FRUIT*

So you think there would be strawberries in it, right? NOPE!

Go looking for the ASTERISK. You'll find it at the bottom of the nutrition label and it says (in the tiniest print):

"These fruit flavored snacks are made with pear concentrate…not intended to replace fruit in the diet."

Isn't that sneaky! There are no strawberries in Strawberry Fruit by the Foot! Instead, there are strange sugars, highly-processed oils, and weird additives.

Get your magnifying glasses out and take a look at the ingredients.

Can you pronounce them? Do you know what they are?

If there is time, explain to the students what some of these ingredients are.

Ingredients of Strawberry Fruit by the Foot:
Pears from Concentrate; Sugar*; Maltodextrin*; Corn Syrup*; Partially Hydrogenated Cottonseed Oil*; Carrageenan; Citric Acid*; Acetylated Monoglycerides; Sodium Citrate*; Malic Acid*; Xanthan Gum*; Locust Bean Gum; Vitamin C (ascorbic acid)*; Potassium Citrate*; Natural Flavor; Color (Yellow 5, Red 40, Blue 1)

- Maltodextrin: sugar like substance that makes things soft/fatty and stay on shelf for a long, long time
- Corn syrup: made by scientists, not farmers
- Partially Hydrogenated Cottonseed Oil: bad for your heart
- Malic Acid: a common additive in "fruit" snacks, which adds the tart fruity flavor that corn syrup lacks.
- Acetylated Monoglycerides: plasticizer and coating agent
- Natural Flavor: this isn't "natural" at all. Castoreum, a flavoring derived from beaver anal glands, is considered "natural" and can be used in strawberry flavored foods. Since flavorings are considered a trade secret, we can only guess at the bizarre combination of dozens of chemicals that make up the strawberry flavor in these snacks.
- Color: Real strawberries don't need added color, but strawberry-flavored pear mash does. These kinds of petroleum-derived dyes have been linked to hyperactivity in children.

Do you think Fruit by the Foot is real food? Do you think it's a healthy snack?

What are some better ideas for healthy snacks?

- whole fruits: apple, banana, grapes, pears, etc.
- veggies with dip: carrots, celery, cucumbers, peppers
- whole grain pretzels, home-made popcorn, whole grain bagel or toast with peanut butter
- something made by yourself—instead of made by a machine!

COOKING

We're going cook up a very healthy snack: Powerhouse Pumpkin Muffins—packed with Vitamin K, Vitamin C, and fiber.

Since this is the first time the students will be cooking, take time to go over the Basic Rules of Cooking.

BASIC RULES OF COOKING

- Wash your hands right before you start.
- Make sure your work space is clean.
- Read through the entire recipe first.
- Make sure you have all the ingredients.
- Make sure you have all the correct equipment.
- Follow directions carefully.
- Ask an adult if you don't understand something.
- Don't rush.
- No running.
- Be careful—equipment can be dangerous.
- Only use white plastic knives (metal knives are for teachers only).
- Put dirty items in bins for washing.
- Clean up messes right away.
- Have fun!

COOKING SKILLS THIS SESSION

Go over the different measuring cups and different measuring spoons (make sure to point out the difference between a teaspoon and a tablespoon).

MEASURING DRY INGREDIENTS:

- Fill cup or spoon with ingredient.
- Don't pack the ingredient too tightly into the cup or spoon.
- Use the back of a knife to level off the extra.
- Make sure the ingredient is even with the top of the cup or spoon.

MIXING:

- Always use one hand to hold the mixing bowl in place.
- With the other hand, grab the mixing spoon and thoroughly mix ingredients. Scrape through to the bottom of the bowl to make sure unmixed ingredients aren't left there.

EXPLORATION AT HOME

Have students investigate what types of snacks are found in their kitchen at home. Which ones are healthy and which ones would they change?

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

SESSION 2: WHAT'S IN MY CUP?

Investigating sugar-sweetened beverages

Making delicious drinks

KEY MESSAGES:

- Companies spend a fortune marketing sodas to young people.
- Athletes don't become great by drinking soda (even though it looks that way in the commercials).
- Soda slows you down!
- Sugar gives you a big burst of energy but then makes you crash.
- When you drink sugar, your brain can't tell you that you're getting full.
- Sugar-sweetened beverages are the largest contributor to childhood obesity in the USA.
- In addition to weight gain, too much sugar can cause diabetes and tooth decay.
- Eating or drinking too much sugar makes it difficult to concentrate at school.
- There's a difference between natural sugars (found in fruits and vegetables) and added sugar. Natural sugar is combined with fiber and nutrients your body needs. Added sugars have ZERO benefit.
- Food with zero benefits (no nutrients) are called EMPTY CALORIES.
- A calorie is a measurement of energy and a young person should consume 1600 to 1800 calories a day.
- A Super Big Gulp has 572 calories—more than a meal should have!
- It's OK to have a sugar-sweetened beverage sometimes, but think of it as a dessert, not a drink.
- It's great to hydrate with water.

PREPARATION:

- Buy ingredients for Superstar Smoothies.
- Make copies of the recipe for each student.
- Make copies of the Sugar Calculations worksheet for each student (on the Food Explorers website).
- Review the following websites:

  Kick the Can campaign
  www.kickthecan.info/soda-facts

  Sugar Stacks
  www.sugarstacks.com/

  Added Sugars Fact Sheet
  www.ruddrootsparents.org/resources/pdf/AddedSugars-FactSheet.pdf

  Food Day
  www.foodday.org/how_much_sugar_are_you_drinking?utm_campaign=how_much_sugar&utm_medium=email&utm_source=foodday

  Rev Your Bev from the Virginia Foundation for Healthy Youth
  revyourbev.com/ and revyourbev.com/facts/

AN INITIATIVE OF: GREATER RICHMOND Coalition FOR Healthy Children

Different names of added sugars
www.choosemyplate.gov/weight-management-calories/calories/added-sugars.html

Drink Up Campaign
www.youarewhatyoudrink.org

Videos to show students if there is time:

Sell Outs (celebrities promoting soda)
www.youtube.com/watch?v=0zP3NOs_xOQ

EQUIPMENT NEEDED

- ☐ Session #2 Bin
- ☐ 10 to 15 sugar-sweetened beverages: Coke, Mountain Dew, Fanta, Vitamin Water, Gatorade, orange juice, apple juice, chocolate milk, etc.
- ☐ Super Big Gulp, Big Gulp, and Gulp cups
- ☐ Granulated sugar in tupperware container
- ☐ Snickers candy bars
- ☐ Sugar calculations worksheets
- ☐ Rethink Your Drink Cards
- ☐ Sugar Shocker Cards
- ☐ Plastic cups
- ☐ Teaspoons for measuring
- ☐ Rev Your Bev posters
- ☐ 95210 handouts
- ☐ 3 Blenders
- ☐ Measuring cups and measuring spoons
- ☐ Cutting board
- ☐ Juicer
- ☐ Knives
- ☐ small sample cups for smoothies

SET UP:

- Hang Rev Your Bev posters around the classroom
- Set up 3 investigations stations on long tables. Each station should have:
- Three to five different sugar-sweetened beverages
- Three 7-11 cups (Super Big Gulp, Big Gulp, and Gulp)
- Granulated sugar in tupperware container
- Teaspoons
- Plastic cups to put sugar in
- Snickers candy bar
- Magnifying glass
- Sugar calculations worksheets
- Pens

DISCUSSION

Who are your favorite heroes? Athletes? Movie stars? Have you ever seen them on a commercial advertising soda?

WATCH SELL OUTS video
www.youtube.com/watch?v=0zP3NOs_xOQ

Why do you think soda companies pay famous people large amounts of money to sell their products?

Why do companies spend so much money on marketing soda to young people?

Coke spends about 3 BILLION dollars a year on marketing.

Besides TV, where else do you see ads for soda?

Movies, internet, Facebook, schools, sporting games, etc.

What's the problem with drinking too much soda?

They are loaded with sugar!

What's wrong with drinking too much sugar?

- Causes hyperactivity and makes it difficult for you to focus.
- Leads to weight gain—sodas are the largest contributor to childhood obesity in the USA
- Can create a sugar crash—after a brief spike of energy, you then feel tired and run down for a much longer time
- Causes tooth decay
- When you drink sugar-sweetened beverages, your brain doesn't tell you that your body is getting full—even though you've consumed a lot of calories. Sugar-sweetened beverages don't satisfy hunger the way solid foods can. So it's easy to drink way too much sugar.
- Weakens the immune system—when you have too much sugar in your body, you can't fight off germs as well
- Causes diabetes

Background information on diabetes to share with students if time allows.

Diabetes

Diabetes is a chronic disease marked by higher-than-normal levels of glucose (sugar) in the blood. It is caused by the body's inability to produce or use insulin, a hormone that acts to move glucose out of the blood and into cells to be used as energy.

One in three children born today, including half of Latino and African-American children, are expected to develop diabetes in their lifetime.

A growing body of research shows that sugary beverages—because they provide all of their calories from sugar in liquid form—are uniquely harmful. We absorb liquid sugar in as little as 30 minutes, much faster than a candy bar, leading to a spike in blood sugar that the body is not well-equipped to handle, particularly in repetition. These spikes in blood sugar can overwhelm the body and lead to the transformation of sugar into fat in the liver, which contributes directly to the development of diabetes.

Complications of diabetes include: heart disease, nerve damage, gum infections, kidney disease, hearing impairment, blindness, amputation of toes, feet or legs, and increased risk of Alzheimer's Disease.

Explain: There are two types of sugar:

1. Natural sugar: found in fruits and vegetables and always combined with fiber and nutrients the body needs

2. Added sugar: added by food companies to food and drinks in large quantities and has zero nutritional value.

Calories are a measure of energy in a food.

Added sugars are EMPTY CALORIES, because they have no nutritional value.

To stay healthy, it is recommended that youth between the ages of 9 and 13 consume 1600 to 1800 calories a day.

Sugar-sweetened beverages can use up A LOT of those valuable calories.

Sugar has lots of names! Sometimes food companies try to hide the high amounts of sugar in a product by listing it as different names in the ingredients.

Names for added sugars on food labels include:

www.choosemyplate.gov/weight-management-calories/calories/added-sugars.html

- Anhydrous dextrose
- Brown sugar
- Confectioner's powdered sugar
- Corn syrup
- Corn syrup solids
- Dextrose
- Fructose
- High-fructose corn syrup (HFCS)
- Honey
- Invert sugar
- Lactose
- Malt syrup
- Maltose
- Maple syrup
- Molasses
- Nectars (e.g., peach nectar, pear nectar)
- Pancake syrup
- Raw sugar
- Sucrose
- Sugar
- White granulated sugar

You may also see other names used for added sugars, but these are not recognized by the FDA as an ingredient name. These include cane juice, evaporated corn sweetener, fruit juice concentrate, crystal dextrose, glucose, liquid fructose, sugar cane juice, and fruit nectar.

Large amounts of sugar hides in a lot of other places too—not just in drinks.

Where else might you find added sugar?

Breakfast cereals, yogurts, granola bars, fruit snacks, peanut butters, spaghetti sauce, etc.

Look at the Sugar Shocker Cards.

Now that you know how to look at labels, check to see how much added sugar a food item has before you choice to eat it.

INVESTIGATION

Sugar is measured by weight and the term GRAMS is used. About 4 grams of sugar are in 1 teaspoon.

Have students break into three groups and go to the investigation stations. They should each have a calculations worksheet.

Once students have made these calculations, measure out the number of teaspoons into a plastic cup to display how much sugar the drink has.

For an interesting comparison, have each group measure the amount of sugar in a Snickers candy bar.

Have each group set up their displays on their table.

Fit 4 Kids + Greater Richmond Coalition for Healthy Children

How Much Sugar Am I Drinking?

To find out how much sugar is in your drink, read the label and do some math:

1. How many grams of sugar are in a serving? _____

2. How many servings are in the container? _____

3. Times the number of grams per serving
   by the number of servings in the container: _____

* 4 grams of sugar = 1 teaspoon of sugar *

4. Divide the total grams of sugar by 4 to get
   the number of teaspoons of sugar in the drink: ☐

5. Measure out that many teaspoons of sugar into a cup!

Encourage the groups to walk around all three tables to look at all of the displays, and then bring the group back together for a discussion.

Sugar Calculations

Super Big Gulp
44 oz of Coke
143 grams of sugar
572 calories
36 teaspoons of sugar

Big Gulp
32 oz Coke
104 grams sugar
416 calories
26 teaspoons of sugar

Gulp
24 oz Coke
78 grams of sugar
312 calories
20 teaspoons of sugar

Coca Cola
12 oz can
39 grams of sugar
156 calories
10 tsp of sugar

Snickers
1 Regular Size bar (59g)
30 grams of sugar
120 calories
7 to 8 teaspoons of sugar

Which drinks have the most sugar? Were there any surprises?

Discuss the "halo" effect—drinks that are supposed to look healthy, but may have just as much as, or even more sugar than soda.

Do you know how many teaspoons of added sugar a young person should have a day?

Between 5 and 8 teaspoons!

What did you learn through that investigation?

- Some fruit drinks have even more sugar than sodas.
- Sodas have more sugar than a candy bar.
- Drinks that look like they'd be healthy—such as Vitamin Water—have lots of sugar.
- A Super Big Gulp has 1/3 of the calories a young person should consume in an entire day!

It's alright to have sugary-drinks sometimes, but you should think of them as a dessert, not a drink!

What are some healthier drink options?

- Water (spend a few minutes talking about the importance of hydration)
- Low-fat plain milk
- Home-made flavored water (made with cucumbers, mint, lemon, basil, oranges, etc)
- Herbal teas with no sweeteners
- Smoothies

COOKING

We're going to make Superstar Smoothies. Smoothies can have a large amount of natural sugars, but they also have important nutrients and fiber for your body.

Divide the class into three groups. Each group makes one smoothie recipe. Pour the smoothies into small sample cups and have a taste test at the end.

COOKING SKILLS THIS SESSION USING ELECTRIC APPLIANCES:

- Take caution when using electric appliances.
- Make sure no one trips over the cord.
- Never put your hands or fingers into appliances.
- Ask an adult to help you if necessary.

EXPLORATION AT HOME

Pass out a 95210 card and discuss each number.

Every day:

- Get 9 hours of sleep
- Eat at least 5 servings of fruits and vegetables
- Don't have more than 2 hours of screen time
- Get 1 hour of physical activity
- Have 0 sugary drinks

Encourage students to count how many sugar-sweetened beverages they drink in a day and in a week. Challenge students to drink as much water as possible!

FOOD EXPLORERS

INVESTIGATING WHAT WE EAT AND WHY

SESSION 3: WHAT'S ON MY PLATE?

Investigating food groups and what makes a balanced meal

Making power-packed breakfasts

KEY MESSAGES:

- A healthy breakfast is essential to a great day!
- A winning breakfast includes whole grains, fiber, and protein and not too much added sugar.
- Whole grains are different than refined grains—they are more nutritious and give you energy for longer.
- You need at least 5 servings of fruits and vegetables each day. Try to eat a wide variety of colors...eat a rainbow!
- MyPlate can help you create balanced meals.

PREPARATION:

- Purchase ingredients for Seriously-good-for-you Scrambled Eggs
- Print copies of the recipe for each student.
- Print a copy of MyPlate for each student.
- Review MyPlate and different food groups www.cnpp.usda.gov/Publications/MyPlate/GraphicsSlick.pdf
- Review sites to teach basic knives skills to children

  www.seriouseats.com/2010/05/knife-skills-how-to-hold-a-knife.html

  www.eatyourbeets.com/kitchen-tips/7-tips-for-teaching-your-kids-how-to-use-a-knife/

EQUIPMENT NEEDED:

- ☐ Session #3 Bin
- ☐ Unhealthy breakfast options such as: Cocoa Puffs, Froot Loops, Lucky Charms, Trix cereals, Donuts, and Pop Tarts
- ☐ 2 Small frying pans
- ☐ 2 Spatulas
- ☐ Teaspoons
- ☐ 3 Colanders for washing veggies
- ☐ Cutting boards
- ☐ Knives
- ☐ Serving bowls
- ☐ Small red mixing bowls
- ☐ Plates, forks, napkins

SET UP:

- Display unhealthy breakfast items on long table for students to investigate.

DISCUSSION

What do you normally eat for breakfast?

Who chooses what you eat for breakfast?

Why is breakfast so important?

- After not eating all night, your body needs to refuel.
- If you miss breakfast, you will be tired and grumpy by mid-morning.
- If you don't eat a good breakfast, it will be harder to concentrate at school.
- Eating a good breakfast will help you eat healthier throughout the entire day.

It's important to have the right type of breakfast. What we choose to eat in the morning is crucial! Choose breakfast foods that have:

- Protein
- Whole grains
- Fiber
- And are low in added sugar

This will boost your attention span, concentration, and memory.

Show large poster of MY PLATE graphic and review the food groups.

Proteins: building blocks for bones, muscles, cartilage, skin, and blood.

Examples: Milk, cheese, eggs, yogurt, peanut butter, nuts

Choosing a breakfast with protein will help you feel full longer!

Grains: Certain types of plants that give you energy

Examples: Wheat, oats, corn, rice

What is the difference between a whole grain and a refined grain?

- Whole grains contain the whole kernel—the most nutritious part of the plant.
- Whole grains release a steady flow of energy.
- Refine grains have been highly processed and the nutritious part of the kernel have been removed.
- Refined grains last longer on the grocery store shelves but are much less nutritious.
- Refined grains give you a burst of energy but then can slow you down.

Dairy: Food made from milk products, which have calcium and strengthen bones.

Examples: Milk, yogurt, cheese, cottage cheese

Fruits and Vegetables: At least FIVE servings per day

The more colorful your food, the better (as long as the colors come from real, natural fruits and vegetables and not artificial colors). Try to eat all of the colors of the rainbow everyday.

INVESTIGATION

Have students look at the breakfast options on the table one item at a time and ask students if they look like good breakfast choices.

- Any protein?
- Any whole grains?
- Any natural fruit?
- Too much sugar?

Many breakfast foods for children are highly-processed, have large amounts of sugar, and contain artificial ingredients.

Sugary cereals for breakfast may taste sweet, but will make you feel sour!

In our session last week, we discussed how eating a lot of sugar will give you a burst of energy, but then make you feel really tired.

If there is time:

- Have students use their sugar calculations skills from last week to see how much sugar is in a serving of cereal.
- Measure out a serving of cereal into a bowl so that students can see how easy it is to eat more than one serving. Discuss portion distortion with students.

What are some healthy breakfast ideas?

- Plain oatmeal in the microwave with fruit on top
- Nut butters on whole grain bagel
- English muffin with banana on top
- Egg sandwich on whole wheat toast

COOKING

We're going to make Seriously-good-for-you Scrambled Eggs. They are a great source of protein and a very easy way to eat loads of veggies.

This cooking session is challenging because only 2 students can cook their omelet on a stove top at a time.

Have everyone help rinse and prep veggies and place in serving dishes.

Then make an assembly line, and have 2 students start at a time.

While students are waiting for their turn, have them take paper plates and draw MyPlate sections with breakfast ideas.

Or students can play with Food Explorer card games.

COOKING SKILLS THIS SESSION

USING A KNIFE:

Use the following websites to teach students 4 basic techniques:

- Holding a knife with the handle grip
- The CLAW for chopping
- Slicing
- Dicing

www.seriouseats.com/2010/05/knife-skills-how-to-hold-a-knife.html

www.eatyourbeets.com/kitchen-tips/7-tips-for-teaching-your-kids-how-to-use-a-knife/

SAUTÉING:

- cooking food in a small amount of oil in a shallow pan on high heat.

EXPLORATION AT HOME

Have students record what they eat for breakfast every day.

SESSION 4: WHAT'S IN MY BIG MAC?

Investigating fast food restaurants and portion distortion

Making lip-smacking lunches (instead of eating chicken nuggets)

KEY MESSAGES:

- Fast food should be a treat, not a regular part of our diet.
- Fast food restaurants spend billions of dollars trying to convince young people to eat unhealthy food.
- Fast food restaurants use portion distortion—the amount of food served is much more than you need in a meal.
- Fast food is high in calories, salt, and the harmful kind of fat.
- A small amount of the right kind of fat is good for our bodies, but too much of the wrong kinds of fat will lead to heart disease.
- One McDonald's meal has more fat than children should eat in an entire day!
- If you do go to a fast food restaurant, make smart choices—drink water, don't order a large size of anything, and try fresh fruit or veggies if available.

PREPARATION:

- Purchase ingredients for Hungry Hummus Wraps recipe. Also purchase a container of store-bought hummus so students can see what it looks like. Since students might not be able to make the hummus at home, they could ask a parent to buy it at the store.
- Print copies of the recipe for each student.
- Print copies of invitation for family members to come to final session for celebration meal (found on the Food Explorers website).
- Review these resources:

  Robert Wood Johnson's Fast Food Facts 2013
  www.rwjf.org/en/research-publications/find-rwjf-research/2013/11/fast-food-facts-2013.html?cid=XEM_A7723

  Video on food marketing to children
  foodmyths.org/myths/marketing-advertising/

  Fat and Measuring
  www.healthtrek.org/for-teens/7-fat-and-measuring

  McDonald's nutritional info
  nutrition.mcdonalds.com/getnutrition/nutritionfacts.pdf

  Nutrition one-pagers from My Plate
  www.choosemyplate.gov/healthy-eating-tips/ten-tips.html

Videos for students to watch if time allows:

- Jamie Oliver making chicken nugget
  www.youtube.com/watch?v=S9B7im8aQjo
- The Decomposition of McDonalds' food
  www.youtube.com/watch?v=8uHxRwQqWFo

EQUIPMENT NEEDED:

- ☐ Session #4 Bin:
- ☐ 3 sets of McDonald's meals—one for each group of students. Each set contains the packaging of 1 Big Mac, 1 large fries, 1 large chocolate shake
- ☐ Other fast food packaging, toys, and crowns
- ☐ Small Ziploc bags for fat measuring
- ☐ Portion Distortion Cards
- ☐ Tablespoons for fat measuring
- ☐ 3 small cans of Crisco for fat measuring
- ☐ Food processor
- ☐ Can opener
- ☐ Colanders
- ☐ Measuring cups and spoons
- ☐ Knives
- ☐ Cutting boards
- ☐ Juicer
- ☐ Grater
- ☐ Dressing bottle
- ☐ Serving bowls
- ☐ Serving spoons
- ☐ Rubber spatulas (for spreading hummus)
- ☐ Tongs
- ☐ Plates and napkins

SET UP:

Have one large table filled with fast food items for students to look at: happy meal boxes, toys, Burger King crowns, etc.

Set up 3 investigation stations on long tables. Each station should have:

- Big Mac package
- Large fries package
- Large chocolate shake cup
- Crisco can
- Small cup of vegetable oil
- Tablespoons
- Ziploc bags
- Paper towels

DISCUSSION

What are your favorite fast food restaurant?

How often do you go?

1 and 3 kids eat fast food EVERY day!
--Robert Wood Johnson's Fast Food Facts

Why do you go?

What are some of your favorite menu items?

Is there anything healthy on the menu? Any fresh food?

Do you think it's good for you?

Only 1% of kids meals at fast food restaurants met nutrition standards.

And most children don't eat kid's meals anyway—they consume larger portions with more calories, salt, and fat.

You know how fast food is so cheap?

Making food cheap usually ends up tasting like cardboard—no natural bright colors, no flavorful seasonings, etc. So in order to make the food taste good while keeping the cost extra low, fast food restaurants add extra sugar, salt, and fat. You may not even realize how many calories you are consuming!

Fast food companies spend a lot of money advertising to kids.

A total of $4.6 billion was spent on all advertising by fast food restaurants in 2012.

McDonald's alone spent 2.7 times as much money to advertise its products as ALL fruit, vegetable, bottled water, and milk advertisers combined.

—Robert Wood Johnson's Fast Food Facts 2013

How do fast food companies target young people?

- Television, especially children's networks
  On average, a teenager sees 5 TV commercials for fast food a day.
- Websites and video games
  Fast food restaurants have their own websites and they advertise heavily on websites frequented by teenagers
- Facebook
  Six billion fast food ads appeared on Facebook
- Smart phones
  Fast food companies use GPS technology to track when young people are close by their restaurants, and send them coupons to encourage eating.

- Sports stadiums
- Schools
  Fast food companies give away free coupons at schools; give rewards to students for academic accomplishments.

Top Fast Food Advertisers:

- McDonald's Happy Meals
- Domino's pizza
- Subway sandwiches
- Wendy's lunch/dinner items
- Pizza Hut pizza.

What's wrong with eating fast food all of the time?

It's ok to have it occasionally as a treat, but try not to eat it every day.

- Fast food has is extremely high in calories, salt, and fat.
- Fast food will make you feel tired and sluggish.
- Fast food portions are too large.
  Explain the concept of PORTION DISTORTION—the amount of food served is much more than you need in a meal.

Look at different sizes of fries from McDonald's:

- A children's fries has 101 calories
- A small fry has 231 calories
- A medium fry has 380 calories
- A large fry has 500 calories

Look at the Portion Distortion Cards to see how portions, calories, and fat content have increase over time.

If time allows, look at the correct portion sizes for a serving of chips or a serving of cereal. It will surprise the students to see how much more that 1 serving they normally eat!

There are good and bad types of fat.

A little amount of the right type of fat is important for your body.

- Fat supports your growth and development. It is needed to build healthy cells.
- Fat helps maintain brain and nerve functions.
- It improves the taste of food.
- It makes you feel full longer.
- It provides essential fatty acids (not a bad thing, despite the name!) that your body can't make on its own.
- It helps you absorb certain vitamins (A, D, E, K).
- It supplies needed oils to skin and hair.

The best type of fat is found in natural, real foods such as nuts, avocados, fish, oils. etc.

But the type of fat found in fast food is called tran-fat or saturated fats and they are harmful to for your body.

Too much bad fat causes heart disease by clogging your arteries.

INVESTIGATION

Fat is measured by weight in grams.

12 grams of fat is equal to 1 Tablespoon

Divide the students into 3 groups and have each group go to an investigation station.

Have the students look at the packaging of the McDonald's items and find the nutrition label on the packaging.

Take the grams of fat per item and divide it by 12.

Big Mac
29 grams of fat
2.5 Tablespoons of fat

Large French fries
25 grams of fat
2 Tablespoons of fat

Large chocolate shake
16 grams of fat
1.5 Tablespoons

2.5 + 2 + 1.5= 6 Tablespoons of fat in a McDonald's meal

Using Crisco, measure out 6 Tablespoons of fat and put it into a small ziplock bag.

This activity can get messy, so have paper towels available. The Crisco comes out of the Tablespoon much easier if the Tablespoon has been dipped in vegetable oil. It also helps to use the outside of the ziplock bag to scrape the Crisco out of the Tablespoon.

This McDonalds' meal has 70 grams of fat. A young person should have 50 to 65 grams of fat in one DAY! This meal has more fat than a young person should eat in an entire day.

Imagine this much fat going into your body every time they eat at McDonald's. How does this make you feel?

When you do eat fast food, what could you do differently to make the meal healthier?

- Order a small instead of a large
- Drink water instead of soda or shakes
- Try some of the healthy options on the menu (fresh fruit, salads with lower fat dressings)

COOKING

Today we're going to make a much better lunch than you'll ever get at McDonald's! Wraps are a quick and easy way to eat fresh, raw, real food loaded with nutrients.

COOKING SKILLS THIS SESSION

Introduce a vegetable peeler and grater—low-tech equipment that kids can easily use to prepare veggies.

EXPLORATION AT HOME

Have students discuss what we learned today with their families. Give them the challenge:

- If you do go to a fast food restaurant, try making healthier choices.
- Investigate your own cafeteria and discover some healthy choices at school lunches.

Pass out the invitation for final class celebration.

SESSION 5: WHAT'S FOR DINNER?

Investigating how salt sneaks into food

Making a meal to share with family and friends

Food Explorers graduation

KEY MESSAGES:

- Too much salt, or sodium, can be hard on our health.
- Salt makes our body hold on to water, which puts extra pressure on our heart and can cause high blood pressure.
- Try to choose products that are low-sodium.
- Herbs and spices are a great way to flavor food instead of using too much salt.
- Eating home-cooked foods is a smart way to limit salt in your diet.
- Have fun making foods at home!

The last session is a time to review all of the key messages students have learned during the Food Explorers course.

PREPARATION:

- Purchase all ingredients necessary for the turkey sweet potato chili.
- Print copies of the recipe for each student.
- Have take-away containers for students to bring food home to their family members if they can't attend the celebration.
- Make graduation certificates for every student (found on the Food Explorers website).
- Order each student a gift of cooking equipment (such as a cutting board, Curious Chef knife, grater, apple slicer, apron, etc.)
- Compile a little booklet with all the recipes used in the course, along with the Food Explorer Key Messages.
- Make copies of post-test survey for evaluation.
- Review Sodium and Your Health sodiumbreakup.heart.org/sodium-411/sodium-and-your-health/

EQUIPMENT NEEDED:

- ☐ All paper products for celebration dinner (table cloths, plates, bowls, cups, silverware, napkins)
- ☐ 2 large stock pots
- ☐ Cutting boards
- ☐ Knives
- ☐ Vegetable peeler
- ☐ Measuring cups and spoons
- ☐ Can opener
- ☐ Spatulas
- ☐ Colanders
- ☐ Scissors

- ☐ 2 serving bowls for salad
- ☐ Serving spoons
- ☐ Ladle
- ☐ Dressing bottle
- ☐ Juicer
- ☐ Water pitchers

SET UP:

- Have students assist in setting a long, lovely table for themselves and their friends and family to eat the graduation dinner. Use tablecloths, nice napkins, etc to make it feel special.

DISCUSSION

We've talked about too much sugar and fat in our diets, but there is one more ingredient that is easy to eat too much of.... any guesses?

SALT! (or another term is sodium)

Where do we get lots of salt from?

- Fast foods
- Pizza
- Chips
- Highly-processed snack food

What's the trouble with too much salt?

Salt makes our body hold on to water, which puts pressure on our heart and can cause high blood pressure.

What are some ways to reduce the amount of salt we eat?

- Choose products that are low-sodium (unsalted or lightly salted nuts and chips, etc.)
  - Show the low-salt chips for today's dinner.
- Use herbs and spices to give flavor to food
  - Today, we'll be cooking with several spices to give our meal flavor—cumin, chili powder, and garlic.
  - Invite students to smell spices.
- Eating home-cooked foods is a smart way to limit salt in your diet.

But before we start cooking dinner, let's review what we've learned over the past 5 weeks in Food Explorers.

What will you most remember from our investigations and time in the kitchen?

FOOD EXPLORERS KEY MESSAGES

SESSION 1

- Real food is found in nature, not processed too much, and filled with nutrients to make you healthy.
- Highly-processed food is made in a factory, stripped of most of its nutrients, contains too much sugar, salt, and/or fat, and has many artificial ingredients.
- The more a food is processed, the less healthy it is.
- Food companies try to trick kids (and their families) into thinking highly-processed foods are healthy.
- Don't be fooled by packaging with super-heroes, exaggerated claims, and asterisks *(the little star that leads to information companies don't want you to see).
- Read labels closely, and try not to eat foods that have lots of ingredients you can't pronounce.
- Do your best to snack on real foods that you make yourself.

SESSION 2

- Companies spend a fortune marketing sodas to young people.
- Athletes don't become great by drinking soda (even though it looks that way in the commercials).
- Soda slows you down!
- Sugar gives you a big burst of energy but then makes you crash.
- When you drink sugar, your brain can't tell you that you're getting full.
- Sugar-sweetened beverages are the largest contributor to childhood obesity in the USA.
- In addition to weight gain, too much sugar can cause diabetes and tooth decay.
- Eating or drinking too much sugar makes it difficult to concentrate at school.
- There's a difference between natural sugars (found in fruits and vegetables) and added sugar. Natural sugar is combined with fiber and nutrients your body needs. Added sugars have ZERO benefit.
- Food with zero benefits (no nutrients) are called EMPTY CALORIES.
- A calorie is a measurement of energy and a young person should consume 1600 to 1800 calories a day.
- A Super Big Gulp has 572 calories—more than a meal should have!
- It's OK to have a sugar-sweetened beverage sometimes, but think of it as a dessert, not a drink.
- It's great to hydrate with water.

SESSION 3

- A healthy breakfast is essential to a great day!
- A winning breakfast includes protein, whole grains, fiber, and not too much added sugar.
- Whole grains are different than refined grains—they are more nutritious and give you energy for longer.
- You need at least 5 servings of fruits and vegetables each day. Try to eat a wide variety of colors...eat a rainbow!
- MyPlate can help you create balanced meals.

SESSION 4

- Fast food should be a treat, not a regular part of our diet.
- Fast food restaurants spend billions of dollars trying to convince young people to eat unhealthy food.
- Fast food restaurants use portion distortion—the amount of food served is much more than you need in a meal.
- Fast food is high in calories, salt, and the harmful kind of fat.
- A small amount of the right kind of fat is good for our bodies, but too much of the wrong kinds of fat will lead to heart disease.
- One McDonalds meal has more fat than children should eat in an entire day!
- If you do go to a fast food restaurant, make smart choices—drink water, don't order a large size of anything, and try fresh fruit or veggies if available.

SESSION 5

- Too much salt, or sodium, can be hard on our health.
- Salt makes our body hold on to water, which puts extra pressure on our heart and can cause high blood pressure.
- Try to choose products that are low-sodium.
- Herbs and spices are a great way to flavor food instead of using too much salt.
- Eating home-cooked foods is a smart way to limit salt in your diet.
- Have fun making foods at home!

ADMINISTER THE FINAL SURVEY

If possible, have one assistant ask and record the open-ended questions at the end (students usually have great things to say but don't want to take the time to write).

COOKING

Today we are making a one-pot wonder—Turkey Sweet Potato Chili! A soup is an easy way to eat lots of delicious veggies. There is plenty of peeling and chopping to do and others can help set the table for our celebration meal.

During the celebration meal, have student detectives share with their family and friends what they have discovered in Food Explorers.

At the end of the course, each student should receive:

- A Food Explorers certificate
- A compilation of recipes used in the course, along with a list of Food Explorer Key Messages
- A gift of cooking supplies (if budget allows)