



real ♥ food
4 real change

WHAT YOU EAT MATTERS!

T O O L K I T

WELCOME!

BACKGROUND

In the United States, 6 in 10 kids don't eat enough fruits and vegetables and 9 in 10 don't eat enough vegetables. This is important because fruit and vegetable consumption is associated with a reduced risk for several chronic diseases including type 2 diabetes.

The situation here in Fairfax County is the same. According to the 2019 Fairfax Youth Survey, 7 in 10 kids aren't eating enough fruits and vegetables and the situation has gotten progressively worse over the past five years.

WHO WE ARE

The Fairfax Food Council is a coalition of citizens, nonprofits, faith partners, county agencies and businesses that advocate and promote food system and policy changes benefitting Fairfax communities, especially underserved communities. In 2019 we partnered with Virginia Foundation for Healthy Youth to create the Real Food for Real Change Program that addresses the decline in fruit and vegetable consumption among Fairfax County middle school students. We created this toolkit so that educators, noneducators and student leaders can engage and excite their students about the food they eat. If they are engaged, then they are more likely to make the right food choices.

OUR BELIEFS

We believe in finding new and effective ways to motivate students to eat more fruits and vegetables. Our approach is less about educating students on the health benefits of eating fruits and vegetables (because they already know or don't care) and *more* about appealing to them through their value system. There is research suggesting that when you align healthy eating to important and widely shared adolescent values, you can produce the needed motivation to change behaviors. For more information about this research, [click here to read an article](#).

APPROACH

Our approach is to introduce students to fruits and vegetables, create positive experiences using activities and cooking and to help students understand the larger picture of the choices they make around our food consumption.

We believe this approach supports adolescent development to become socially conscious, autonomous and encourages personal self-worth.

THE TOOLKIT

The toolkit is designed around a series of investigations to help them understand how their consumption impacts our environment and it also contains numerous exercises and cooking activities that further engage and excite students to food.

We developed this toolkit with you in mind. Whether you are an educator, instructor, church leader or girl scout leader this toolkit will meet your needs and is flexible in a variety of settings. Outdoor picnic table? Not a problem!

The investigations can be done in sequence, from start to finish or you can select activities that meet the needs of your situation. There are seven different Investigations:

1. Build a good relationship
2. Share your knowledge
3. Have fun with your knowledge
4. Understand the larger picture
5. Building cooking skills
6. What is it you are eating?
7. Building the snack of my dreams

OUR PARTNERS

We partnered with different organizations to bring you a wide variety of educational resources. Some of the lessons included in this toolkit have been adapted from the FRESHFARM FoodPrints Curriculum. FoodPrints is an experiential food education program based in Washington D.C. To learn more about FoodPrints and to gain free access to 63 interdisciplinary lessons, instructional videos for students and teachers, recipes, planning tools, and virtual adaptations please visit freshfarm.org/foodprints/curriculum.

Our other partner is Angela DeHart, founder and CEO of STEM Impressionists Program. To learn more about Angela and her program please visit <http://stemimpressionists.org>.

Why and How Eating More Fruits and Vegetables Helps the Planet.

Use any facts from the resource links below to provide information about the connection between eating more fruits and vegetables and a healthy planet. The information can be used either as an introduction to the subject or as supplemental resources to provide background knowledge that can help participants more directly connect their food choices with environmental impacts. They should be aware of the impact of food production, packaging, transportation, and disposal on our land, water and air. Once introduced to compelling environmental facts, young people may be more likely to choose a diet high in fruits and vegetables in order to reduce their environmental impact.

- Though we are not promoting a vegan lifestyle, this article has a lot of interesting facts that encourage a diet rich in fruits and vegetables: <https://www.forksoverknives.com/wellness/vegan-diet-helps-environmental-sustainability>
- This article by the UN Environment Program has some great information on food waste: <https://www.unep.org/thinkeatsave/get-informed/worldwide-food-waste>.
- This article has interesting information around food and greenhouse gasses along the whole food supply chain: <https://www.visualcapitalist.com/visualising-the-greenhouse-gas-impact-of-each-food/>



1 INVESTIGATION ONE

BUILD A GOOD RELATIONSHIP

Build a good relationship with fruit and vegetables and kids will seek it out themselves. Begin with a story, and create a tradition.

LEARNING OBJECTIVE: To create a positive relationship with fruits and vegetables and turn it in a healthy habit.

M MATERIALS:

- Color chart of Nutrients
- Voting sheet of favorite fruits and vegetables/Identify fruits and vegetables

⚙ INSTRUCTIONS

Gaining an understanding of the student's relationship with fruits and vegetables. Explore one or more of the following questions:

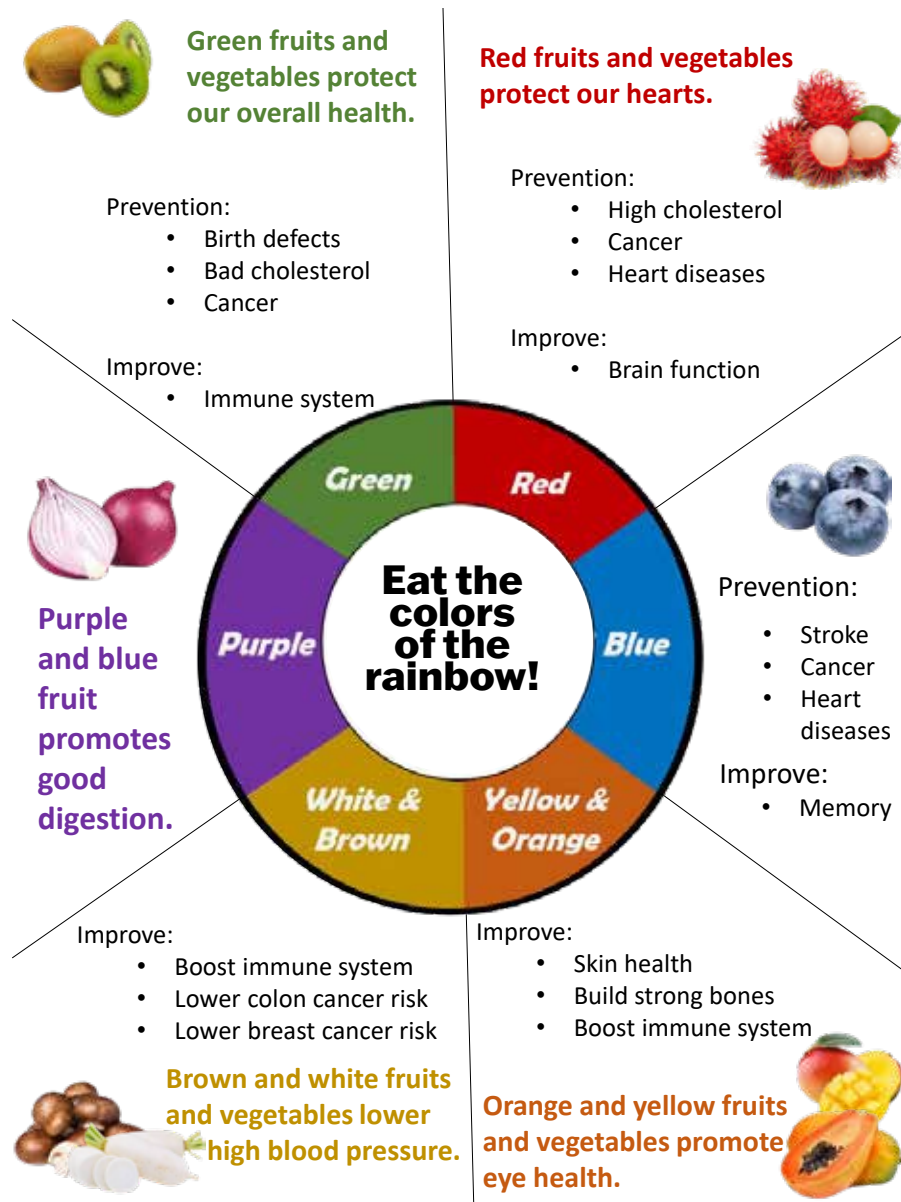
1. What are fruit/vegetables to the student?
2. How does your nation of origin impact the fruit/vegetables you enjoy?
3. Fun fruit/vegetable facts!



In general, fruit and vegetables have lower greenhouse gas emissions compared to animal products such as beef and dairy, in fact as much as 10-50 times lower. What about seasonal fruit and vegetables? The environmental benefits of seasonal fruit and vegetables are often attributed to the shorter distances they travel.

Nutrients By Color

Colorful foods contain many of the vitamins and antioxidants that we need to maintain our health and prevent diseases. There are several ways you can use this graphic: Use as a handout, print it and use it as a poster on the wall, or use it as a resource when you are cooking.



Activity 1: Understanding the relationship students have with fruits/vegetables

- By gaining an understanding of the student's relationship with fruits and vegetables the instructor can customize the lesson plan/discussion to the students in the room.
- The following worksheets allow students to indicate their perspective, while learning 1 tidbit about how color of the fruit or vegetable benefit their health.
- All of the fruits and vegetables listed are available locally, in stores like Wegman's, Whole Foods, and Lotte's (or other Asian grocery stores) if the instructor wishes to offer students a taste testing experience or a grocery store field trip.



EXERCISE 1: WHAT ARE YOUR FAVORITE BLUE AND PURPLE FRUITS & VEGETABLES?

Blue and purple fruits and [vegetables](#) are rich in anthocyanins and resveratrol and have been studied extensively for their anticancer and antiaging properties. [Studies show](#) that the bioactive phytochemicals in berries work to repair damage from oxidative stress and inflammation.

1. Mark your favorite **BLUE AND PURPLE** fruits and vegetables by placing a check mark in the box next to your favorites below.

- | | |
|-----------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> Blueberries | <input type="checkbox"/> Purple grapes |
| <input type="checkbox"/> Blackberries | <input type="checkbox"/> Red (purple) onions |
| <input type="checkbox"/> Red (purple) cabbage | <input type="checkbox"/> Purple potatoes |
| <input type="checkbox"/> Purple cauliflower | <input type="checkbox"/> Plums |
| <input type="checkbox"/> Eggplant | <input type="checkbox"/> Prunes |
| <input type="checkbox"/> Figs | <input type="checkbox"/> Raisons |
| <input type="checkbox"/> Red grapes | <input type="checkbox"/> Purple sweet potato |



EXERCISE 2: IDENTIFY THE BLUE AND PURPLE FRUITS & VEGETABLES

Blue and purple fruits and [vegetables](#) are rich in anthocyanins and resveratrol and have been studied extensively for their anticancer and antiaging properties. [Studies show](#) that the bioactive phytochemicals in berries work to repair damage from oxidative stress and inflammation.

2. How many blue and purple fruits and vegetables can YOU identify? Match the pictures above to the names below by placing the correct number in each box.

Blueberries

Blackberries

Red (purple) cabbage

Purple cauliflower

Eggplant

Figs

Red grapes

Purple grapes

Red (purple) onions

Purple potatoes

Plums

Prunes

Raisins

Purple sweet potato

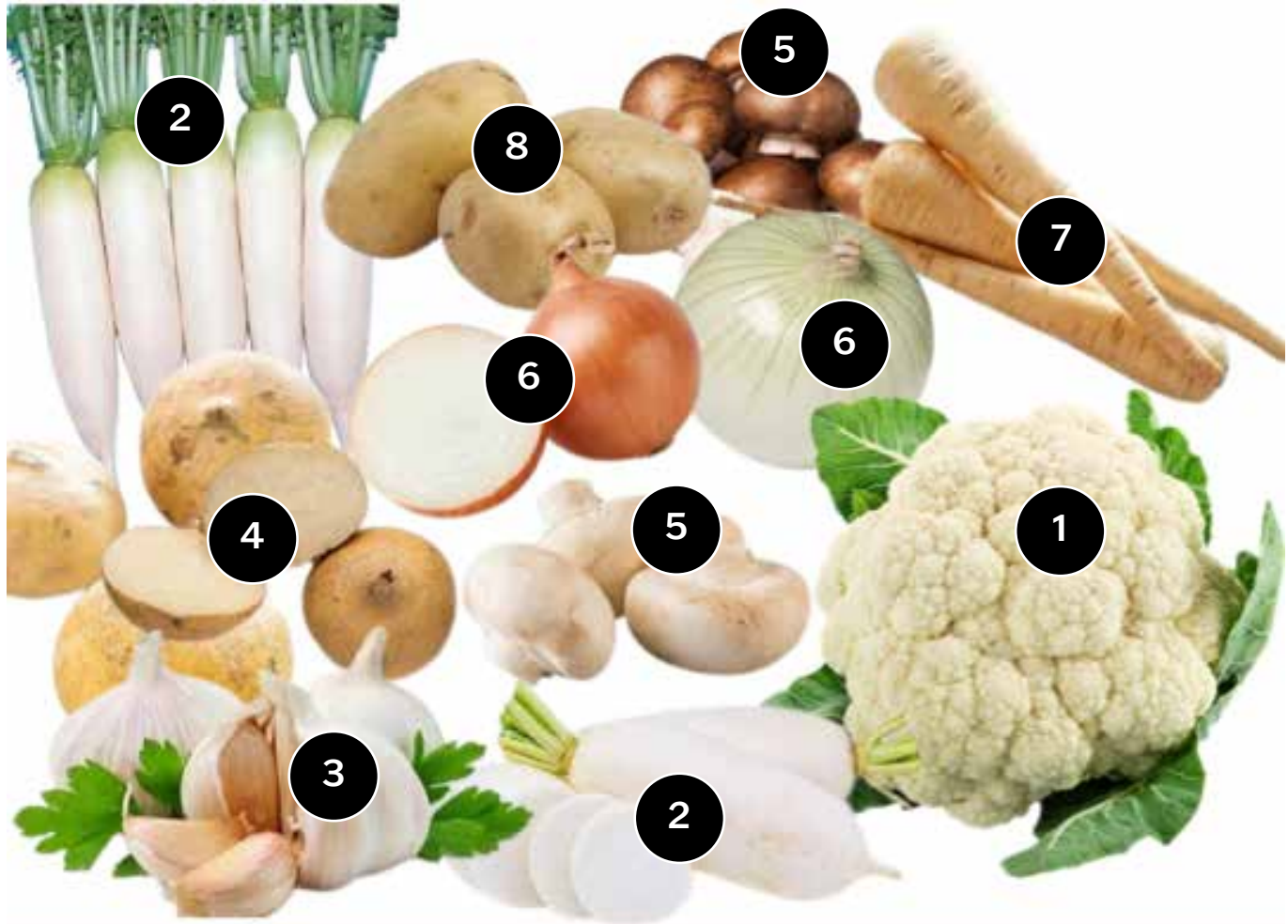


EXERCISE 1: WHAT ARE YOUR FAVORITE WHITE FRUITS & VEGETABLES?

Aged garlic has been shown to have anti-inflammatory, immune-boosting, and anti-allergic effects, even more so than raw garlic. And phytonutrients in white button mushrooms have been found to inhibit aromatase activity and breast cancer cell proliferation

1. Mark your favorite WHITE fruits and vegetables by placing a check mark in the box next to your favorites below.

- | | |
|----------------------------------------|------------------------------------|
| <input type="checkbox"/> Cauliflower | <input type="checkbox"/> Mushrooms |
| <input type="checkbox"/> Daikon radish | <input type="checkbox"/> Onions |
| <input type="checkbox"/> Garlic | <input type="checkbox"/> Parsnips |
| <input type="checkbox"/> Jicama | <input type="checkbox"/> Potatoes |



EXERCISE 2: IDENTIFY THE WHITE FRUITS & VEGETABLES

Aged garlic has been shown to have anti-inflammatory, immune-boosting, and anti-allergic effects, even more so than raw garlic. And phytonutrients in white button mushrooms have been found to inhibit aromatase activity and breast cancer cell proliferation

2. How many white fruits and vegetables can YOU identify? Match the pictures above to the names below by placing the correct number in each box.

- | | |
|----------------------------------------|------------------------------------|
| <input type="checkbox"/> Cauliflower | <input type="checkbox"/> Mushrooms |
| <input type="checkbox"/> Daikon radish | <input type="checkbox"/> Onions |
| <input type="checkbox"/> Garlic | <input type="checkbox"/> Parsnips |
| <input type="checkbox"/> Jicama | <input type="checkbox"/> Potatoes |



EXERCISE 1: WHAT ARE YOUR FAVORITE ORANGE AND YELLOW FRUITS & VEGETABLES?

Two of the most notable carotenoids in orange and yellow foods are lutein and zeaxanthin. These fat-soluble antioxidants have been heavily studied for their ability to help protect the health of your eyes. In fact, they accumulate in the retina of your eyes, where they help prevent cataracts and diseases like age-related macular degeneration — the leading cause of blindness around the world..

1. Mark your favorite ORANGE AND YELLOW fruits and vegetables by placing a check mark in the box next to your favorites below.

- | | |
|-------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Bananas | <input type="checkbox"/> Mangoes |
| <input type="checkbox"/> Butternut squash | <input type="checkbox"/> Oranges |
| <input type="checkbox"/> Cantaloupe | <input type="checkbox"/> Orange/yellow peppers |
| <input type="checkbox"/> Carrots | <input type="checkbox"/> Papayas |
| <input type="checkbox"/> Corn | <input type="checkbox"/> Peaches |
| <input type="checkbox"/> Golden beets | <input type="checkbox"/> Sweet potato |
| <input type="checkbox"/> Grapefruit | <input type="checkbox"/> Yellow summer squash |
| <input type="checkbox"/> Lemons | <input type="checkbox"/> Winter squash |



EXERCISE 2: IDENTIFY THE ORANGE AND YELLOW FRUITS & VEGETABLES

Two of the most notable carotenoids in orange and yellow foods are lutein and zeaxanthin. These fat-soluble antioxidants have been heavily studied for their ability to help protect the health of your eyes. In fact, they accumulate in the retina of your eyes, where they help prevent cataracts and diseases like age-related macular degeneration — the leading cause of blindness around the world..

2. How many orange and yellow fruits and vegetables can YOU identify? Match the pictures above to the names below by placing the correct number in each box.

- | | |
|-------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Bananas | <input type="checkbox"/> Mangoes |
| <input type="checkbox"/> Butternut squash | <input type="checkbox"/> Oranges |
| <input type="checkbox"/> Cantaloupe | <input type="checkbox"/> Orange/yellow peppers |
| <input type="checkbox"/> Carrots | <input type="checkbox"/> Papayas |
| <input type="checkbox"/> Corn | <input type="checkbox"/> Peaches |
| <input type="checkbox"/> Yellow beets | <input type="checkbox"/> Sweet potato |
| <input type="checkbox"/> Grapefruit | <input type="checkbox"/> Yellow summer squash |
| <input type="checkbox"/> Lemons | <input type="checkbox"/> Winter squash |

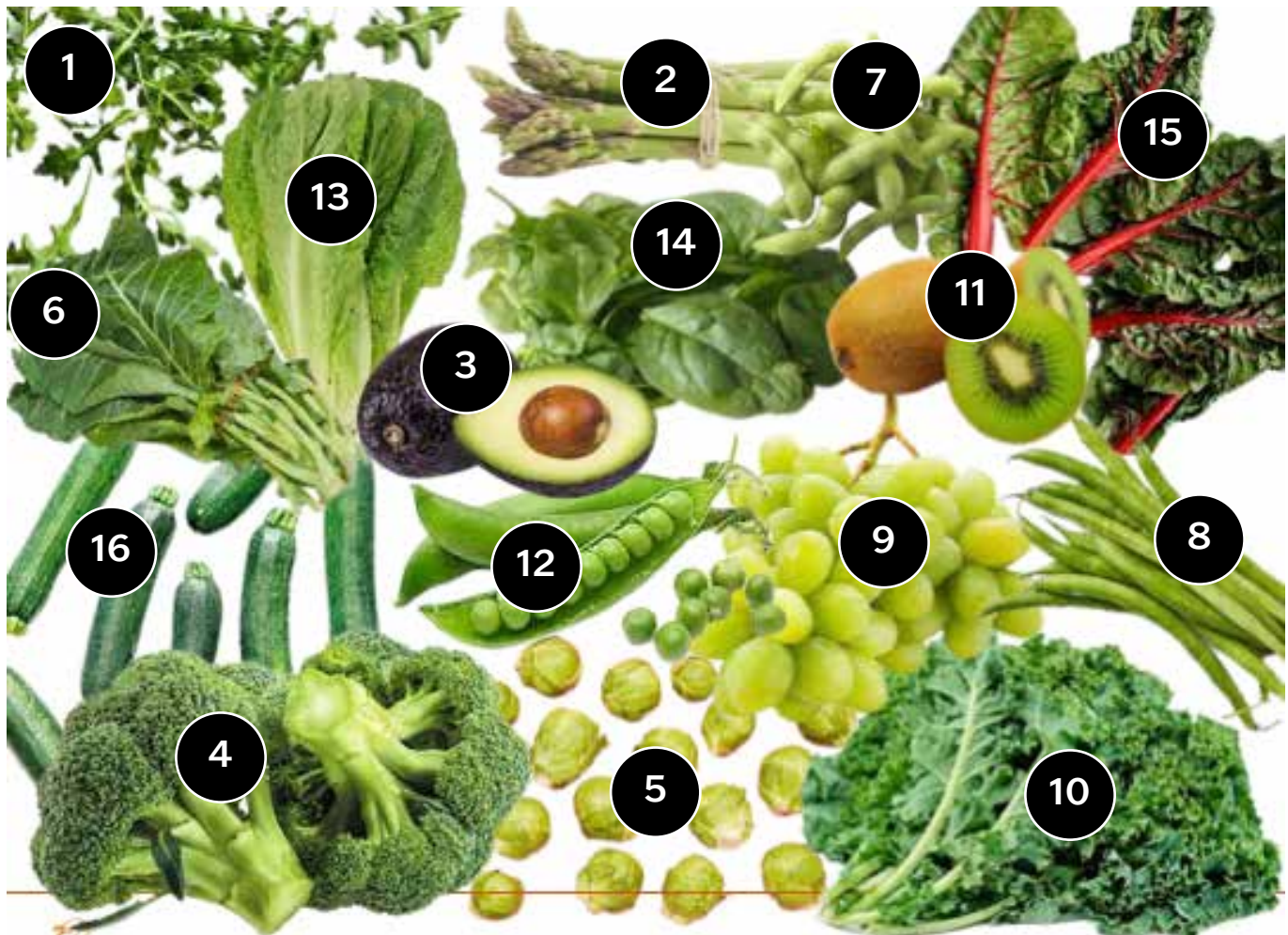


EXERCISE 1: WHAT ARE YOUR FAVORITE GREEN FRUITS & VEGETABLES?

Greens are some of the healthiest foods we can eat. Green fruits and vegetables are rich in lutein, isothiocyanates, isoflavones, and vitamin K — which is essential for blood and bone health.

1. Mark your favorite GREEN fruits and vegetables by placing a check mark in the box next to your favorites below.

- | | |
|-------------------------------------------|------------------------------------------|
| <input type="checkbox"/> Arugula | <input type="checkbox"/> Green grapes |
| <input type="checkbox"/> Asparagus | <input type="checkbox"/> Kale |
| <input type="checkbox"/> Avocado | <input type="checkbox"/> Kiwi fruit |
| <input type="checkbox"/> Broccoli | <input type="checkbox"/> Peas |
| <input type="checkbox"/> Brussels sprouts | <input type="checkbox"/> Romaine lettuce |
| <input type="checkbox"/> Collard greens | <input type="checkbox"/> Spinach |
| <input type="checkbox"/> Edamame | <input type="checkbox"/> Swiss chard |
| <input type="checkbox"/> Green beans | <input type="checkbox"/> Zucchini |



EXERCISE 2: IDENTIFY THE GREEN FRUITS & VEGETABLES

Greens are some of the healthiest foods we can eat. Green fruits and vegetables are rich in lutein, isothiocyanates, isoflavones, and vitamin K — which is essential for blood and bone health.

2. How many green fruits and vegetables can YOU identify? Match the pictures above to the names below by placing the correct number in each box.

- | | |
|-------------------------------------------|------------------------------------------|
| <input type="checkbox"/> Arugula | <input type="checkbox"/> Green grapes |
| <input type="checkbox"/> Asparagus | <input type="checkbox"/> Kale |
| <input type="checkbox"/> Avocado | <input type="checkbox"/> Kiwi fruit |
| <input type="checkbox"/> Broccoli | <input type="checkbox"/> Peas |
| <input type="checkbox"/> Brussels sprouts | <input type="checkbox"/> Romaine lettuce |
| <input type="checkbox"/> Collard greens | <input type="checkbox"/> Spinach |
| <input type="checkbox"/> Edamame | <input type="checkbox"/> Swiss chard |
| <input type="checkbox"/> Green beans | <input type="checkbox"/> Zucchini |

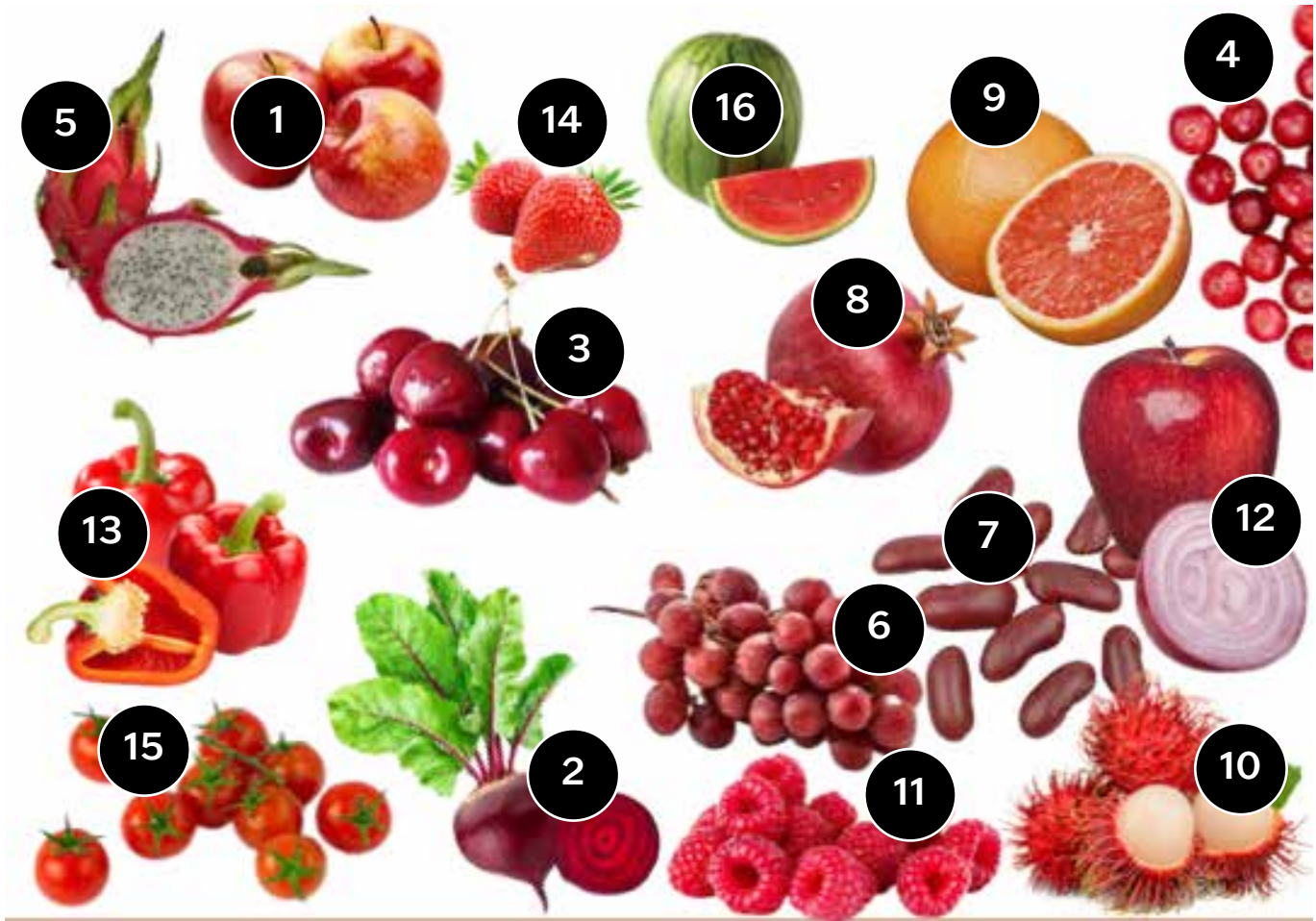


EXERCISE 1: WHAT ARE YOUR FAVORITE RED FRUITS & VEGETABLES?

Red fruits and vegetables contain phytochemicals including lycopene and ellagic acid. These powerful nutrients have been studied for their cancer-fighting effects and other health benefits.

1. Mark your favorite RED fruits and vegetables by placing a check mark in the box next to your favorites below.

- | | |
|---------------------------------------|------------------------------------------|
| <input type="checkbox"/> Apples | <input type="checkbox"/> Pink grapefruit |
| <input type="checkbox"/> Beets | <input type="checkbox"/> Rambutan |
| <input type="checkbox"/> Cherries | <input type="checkbox"/> Raspberries |
| <input type="checkbox"/> Cranberries | <input type="checkbox"/> Red onions |
| <input type="checkbox"/> Dragon Fruit | <input type="checkbox"/> Red peppers |
| <input type="checkbox"/> Grapes | <input type="checkbox"/> Strawberries |
| <input type="checkbox"/> Kidney Beans | <input type="checkbox"/> Tomatoes |
| <input type="checkbox"/> Pomegranate | <input type="checkbox"/> Watermelon |



EXERCISE 2: IDENTIFY THE RED FRUITS & VEGETABLES

Red fruits and vegetables contain phytochemicals including lycopene and ellagic acid. These powerful nutrients have been studied for their cancer-fighting effects and other health benefits.

2. How many red fruits and vegetables can YOU identify? Match the pictures above to the names below by placing the correct number in each box.

- | | |
|---------------------------------------|------------------------------------------|
| <input type="checkbox"/> Apples | <input type="checkbox"/> Pink grapefruit |
| <input type="checkbox"/> Beets | <input type="checkbox"/> Rambutan |
| <input type="checkbox"/> Cherries | <input type="checkbox"/> Raspberries |
| <input type="checkbox"/> Cranberries | <input type="checkbox"/> Red onions |
| <input type="checkbox"/> Dragon Fruit | <input type="checkbox"/> Red peppers |
| <input type="checkbox"/> Grapes | <input type="checkbox"/> Strawberries |
| <input type="checkbox"/> Kidney Beans | <input type="checkbox"/> Tomatoes |
| <input type="checkbox"/> Pomegranate | <input type="checkbox"/> Watermelon |

TEACHER ANSWER KEYS

Purple and Blue:



- | | |
|--------------------------|------------------------|
| 1. Eggplant | 8. Prunes |
| 2. Figs | 9. Blackberries |
| 3. Purple cabbage | 10. Red grapes |
| 4. Purple potatoes | 11. Purple onion |
| 5. Purple sweet potatoes | 12. Purple cauliflower |
| 6. Raisins | 13. Plum |
| 7. Purple Grapes | 14. Blueberries |

White:



- | | |
|------------------|--------------|
| 1. Cauliflower | 5. Mushrooms |
| 2. Daikon radish | 6. Onions |
| 3. Garlic | 7. Parsnips |
| 4. Jicama | 8. Potatoes |

Orange and yellow:



- | | |
|---------------------|---------------------------|
| 1. Bananas | 9. Mangoes |
| 2. Butternut squash | 10. Orange/yellow peppers |
| 3. Cantaloupe | 11. Papayas |
| 4. Carrots | 12. Peaches |
| 5. Corn | 13. Sweet potato |
| 6. Yellow beets | 14. Yellow summer squash |
| 7. Grapefruit | 15. Winter squash |
| 8. Lemons | 16. Oranges |

Green:



- | | |
|---------------------|---------------------|
| 1. Arugula | 9. Green grapes |
| 2. Asparagus | 10. Kale |
| 3. Avocado | 11. Kiwi fruit |
| 4. Broccoli | 12. Peas |
| 5. Brussels sprouts | 13. Romaine lettuce |
| 6. Collard greens | 14. Spinach |
| 7. Edamame | 15. Swiss chard |
| 8. Green beans | 16. Zucchini |

Red:



- | | |
|-----------------|--------------------|
| 1. Apples | 9. Pink grapefruit |
| 2. Beets | 10. Rambutan |
| 3. Cherries | 11. Raspberries |
| 4. Cranberries | 12. Red onions |
| 5. Dragon Fruit | 13. Red peppers |
| 6. Grapes | 14. Strawberries |
| 7. Kidney Beans | 15. Tomatoes |
| 8. Pomegranate | 16. Watermelon |



2 INVESTIGATION TWO SHARE YOUR KNOWLEDGE!

LEARNING OBJECTIVE: Using the information from Investigation One, create an opportunity for students to use life and career skills.

M MATERIALS:

- Presentation poster boards or a large piece of construction paper
- Colored pencils and/or markers
- Scissors

G INSTRUCTIONS

Activity: create a health fair and have each group speak to an audience

1. Have students work in small groups or individually
2. Allow students to choose the fruit or vegetable by color category or individual fruit/vegetable type
3. Students conduct research for 1-2 days
4. Students create poster for their health fair presentation
5. Students are split into 2 groups. Have 1 group present to their peers on day 1 and the other half on day 2

Presentations can be an opportunity to make the event cross-curricular:

- What are the language origins of the name of the fruit?
- What is the history of this fruit? (i.e. Grapefruit)
- In what ways is this fruit used in cooking?
- What is the scientific (botany) name of this fruit?



Covered in Activity #1:

- Where in the world is this fruit eaten?
- Are their holidays and/or traditions that surround this fruit?
- How does it benefit your health?

Other Considerations

- Invite other classes, groups from outside of your participants (i.e. parents, other students, class, etc.) to come to the health fair.
- Have a survey about the quality of the health fair and what the visitors learned from the student's presentation.

Example survey questions:

- Were the students informed?
- Did they make a good presentation?
- Did they answer your questions?
- Did they make eye contact?

At the end of the fair have students read the feedback and reflect on how they could make a better fair if they repeated that activity again.

- Crowd can be just the rest of the class, but also other folks to come in (other classes, groups, etc.).



Research has shown that hands-on activities allow students to discover knowledge in a way that supports deeper learning. By actively participating in their education, they become more independent, are excited to share their knowledge with others, and they are better able to apply their knowledge to other projects in the future.



3 INVESTIGATION THREE

HAVE FUN WITH YOUR NEW KNOWLEDGE

LEARNING OBJECTIVE: Use hands-on learning experiences to have fun interacting with fruits and vegetables.

INSTRUCTIONS

There are many ways for students to use their knowledge while having a positive experience playing and experimenting with fruit and vegetables. This is the part when fond memories are built and a relationship with the fruit and/or vegetable is solidified—and there are lots of ways to do this! Feel free to choose more than one!



Activity Choices:

1. Partner with Family and Consumer Science teacher to host a Fruit & Veggie dinner/event.

- Create a menu.

Example stations:

- Ice cream, pancakes, or waffles with [fruit reduction](#)
- [Kale Chips](#) with a Grilled Cheese sandwich
- [Frozen fruit bars](#) or fruit snow cones
- Make a delicious [vegetable smoothie](#) sweetened with fruit
- Compare it to a cheese tasting event and jazz things up – make it special

2. Make felt fruit and veggie creations.

- Create fruit bracelets with [shrinky dinks](#)
- Or with Japanese fruit erasers



How to Make Simple Earrings:

- <https://youtu.be/a1uQpl44Oul>
- <https://youtu.be/UAYYS5MBGT8>
- https://youtu.be/y_MN-BtOwjU

3. Make a [battery](#) using fruit!

4. Create a calendar that celebrates fruits and vegetables!

- Mark fruit related holidays, celebrations, etc

5. Take a field trip to a [non-us based grocery store](#) and look at the fruit section.

- Take a field trip or give an extra credit assignment if students visit a culture-based grocery store, take pictures of the fruit and vegetable section, and share their experience with their peers!

6. Start a [garden](#), grow a [fruit tree in a pot](#).



4 INVESTIGATION FOUR

UNDERSTAND THE LARGER PICTURE

LEARNING OBJECTIVE: Understand and be proactive about the choices we make around food before and after we consume it.

C CRITICAL THINKING

Larger questions:

- What happens to food when it is no longer usable for human consumption?
- Why do all of the fruits and vegetable we purchase look the same?

G INSTRUCTIONS

Lead students through an understanding of three big food issues:

1. What is food waste?
2. How is food waste impacting the US?
3. What can I do about the problem?

Activity 1: What is food waste?

- Define.
- Demonstrate in a meaningful way.
- Look at the US.



Almost half of our food is wasted in the United States. Households are responsible for the largest portion of all food waste. How does this happen? What can we do to solve our enormous food waste problem?

The section that follows below provides an outline about food waste. For specific information, facts or statistics relating to food waste that tie-in to this outline, check out the Resource Section titled Food Waste on Page 43. Bring points contained below to your students' attention.

Define

- Food Waste vs. Food Loss
 - There are two ways to classify food that is grown, but not consumed: food loss and food waste.
 - Food loss is the bigger category, and incorporates any edible food that goes uneaten at any stage.
 - In addition to food that's uneaten in homes and stores, this includes crops left in the field, food that spoils in transportation, and all other food that doesn't make it to a store.
 - Food waste, a sub-category of food loss, is defined by the United States Department of Agriculture as "food discarded by retailers due to color or appearance and plate waste by consumers."

RESOURCES

- <https://www.rts.com/resources/guides/food-waste-america/>
- <https://foodprint.org/issues/the-problem-of-food-waste/>

Demonstrate in a meaningful way

- Take photos of the trash bins in the cafeteria.
 - For a lunch period
 - For all the lunch periods
 - For the week

RESOURCES

Links to YouTube videos are included in the presentation as well as in the Reference section at the end of the toolkit.

Food Waste in the United States

- America wastes roughly 40 percent of our food.
 - Of the estimated 125 to 160 billion pounds of food that goes to waste every year, much of it is perfectly edible and nutritious.

- Food is lost or wasted for a variety of reasons:
 - bad weather
 - processing problems
 - overproduction
 - unstable markets cause food loss long before it arrives in a grocery store
 - buying more than is needed
 - poor planning and confusion over labels and safety contribute to food waste at stores and in homes.

- Food waste also has a staggering price tag, costing this country approximately \$218 billion per year.

- Food waste is responsible for more than 25 percent of all the freshwater consumption in the US each year, and is among the leading causes of fresh water pollution.

- Household food losses are responsible for eight times the energy waste of farm-level food losses due to the energy used along the food supply chain and in preparation.

- In landfills, food gradually breaks down to form methane, a greenhouse gas that's up to 86 times more powerful than carbon dioxide.

- Only five percent of food is composted in the US and as a result, uneaten food is the single largest component of municipal solid waste.

- Uneaten food also puts unneeded strain on the environment by wasting valuable resources like water and farmland.
 - At a time when 12 percent of American households are food insecure, reducing food waste by just 15 percent could provide enough sustenance to feed more than 25 million people annually.

RESOURCES

<https://nihcm.org/publications/food-insecurity-in-the-u-s>

Activity 2: What can I do about the problem?

Students now have information that will allow them to:

- Enjoy cooking with the fruits and vegetables they have just learned about.

- Choose how they want to address the issues with food waste.
 - Suggested activities for addressing food waste:
 1. Commit to recycling more (at school and at home).

 2. Start a school composting program (see Lesson Five, Activity 4 for more composting ideas).
 - Compost improves the structure of soil by restoring the nutrient content, the structure of the soil, creating air pockets (worms are good at that!), and allowing the soil to retain water (so when it floods the water has somewhere to go!).
 - Take an in-person or [virtual field trip to a farm](#) or a [waste management plant](#)!

 3. Review career opportunities in the field (Bring in an in-person or virtual guest speaker if possible)

 4. Identify and then give food to local shelters.

 5. Start a garden.
 - Use school food waste to create compost and improve the soil in the garden.
 - Sell the compost as a fundraiser to buy supplies for the garden.

 6. Continue to learn more about food loss.

RESOURCES

Understand “The Good Samaritan Act”

<https://www.feedingamerica.org/ways-to-give/corporate-and-foundations/product-partner/bill-emerson>



5 INVESTIGATION FIVE: BUILDING COOKING SKILLS

Now that a relationship has been established between students and their food, we can introduce them to cooking, which will further engage them with their food.

LEARNING OBJECTIVE: The goal of this first session is to learn how to be safe as we prepare food. Today, we will review handwashing, working with knives, preparing food and disposing of food waste.

M MATERIALS:

- A bit of flour (for handwashing demonstration)
- Sink access, handsoap, and towels
- Knife and cutting board for each student
- Variety of vegetables for cutting
- Recipe ingredients and supplies

INSTRUCTIONS

Activity One: The Importance of Proper Handwashing

We all know that it is important to wash our hands and that we can get sick if we don't, but we may not know just how quickly the germs that make us sick can quickly travel.

Put some flour on your hands, explaining that the flour represents germs that could make us sick. Then, ask for a few volunteers. Shake hands with one, and then another, and then wipe your hands on your pants, or touch a kitchen tool, or put your hands on your hair or face, to show how quickly the flour—the germs—can travel around the kitchen.

Students wash hands. In order to stop the spread of germs, let's take some time to wash our hands, scrubbing for a long time and getting all parts of your hands, including between your fingers, the tops of your hands and going up above the wrists.

ASK: Are all germs bad? (answer: No! In fact, most germs are good for us)
How long should you wash your hands? (answer: you should scrub your hands for a full 20 seconds before rinsing.)



Share with students that our bodies are covered with microorganisms (also called bacteria or germs) inside and out. The vast majority of these germs are good for us. In fact, we couldn't live without them. There are some microorganisms, however, that can make us very sick. In fact, bacteria are among the fastest reproducing organisms in the world! This is why thorough hand washing in the kitchen is crucial. Since germs are so tiny that you need a microscope to see them, it is important to scrub carefully.



Activity Two: Washing Vegetables

Once our hands are clean, we can then clean our vegetables. Remember that vegetables are plants that grow in the ground and therefore might be dirty. They might also still have some garden critters around them, enjoying a final munch from a leaf. Washing them thoroughly takes care of this.

Wash vegetables with students.

Activity Three: Using Kitchen Tools

Although we will be using a few different kitchen tools, we want to focus on using knives safely.

Start by introducing two different ways to hold vegetables when using a knife: the tunnel and the claw. You can also watch FRESHFARM's FoodPrints video about hand positions for cutting here: [Hand Positions for Cutting](#).

Demonstrate how to safely pass a knife from one person to another and how to safely walk through a room to a workspace or sink (hold the knife next to your thigh and point it toward the floor). Always use a cutting board.

Distribute different fruits and vegetables to cut, such as apples, cucumbers, peppers, and tomatoes. Where possible, encourage students to cut open a whole vegetable so they have the experience of cutting it open and discovering what is inside, then cutting it into bite-sized or snackable pieces.



Use Your Five Senses! You can also introduce students to vegetables by doing a blindfolded taste test where participants take turns trying a small piece of a fruit or vegetable while blindfolded. Ask students to take time to use all their senses to explore the produce before eating it. They can describe what they experience and if they found that the smell and texture prepared them for the taste.



DON'T "YUCK MY YUM!"

We want to encourage students to try new foods without forcing them to do so. Some participants might choose not to try these vegetables; others may be ready to only explore the smell or the texture. When you eat as a group, encourage students who like the food to share why and remind the group that it is okay if they decide they don't like it after one bite. Some students may really love a new fruit or veggie, while others may find it less palatable. Let them know that it is okay to have preferences, and normal and healthy to not like every new food, or not feel like trying everything every time. What is important is to be curious and to not "yuck another person's yum"—you wouldn't want a friend to feel bad about liking to eat something that you don't like, right? You wouldn't want someone to yuck your yum, right?

Activity Four: Introduction to Composting

Teacher: As we chopped vegetables, you probably noticed that there were parts that we did not eat—the seeds in a pepper, the core of an apple, etc.

ASK: *What do you think we should do with the uneaten parts of the vegetable?*

The US discards more food than any other country in the world: 80 billion pounds—every year! Uneaten food ends up rotting in our landfills and takes up more space than anything else.

Composting is one way to ‘recycle’ food waste. When you compost, food waste is returned to the soil and helps create healthy soil that can then grow more healthy food and other plants. In contrast, food thrown in the trash—which is taken to local landfills—creates methane, a greenhouse gas that has been linked to climate change. If you and your family already recycle, encourage a commitment to composting to match their commitment to recycling paper, plastic, metal, and glass.

Learn more about composting! Show students the Worms and Composting Instructional Video from FRESHFARM FoodPrints to teach students why composting is important and how to get started. Access this video as part of the FoodPrints lesson, Compost Stew at freshfarm.org/foodprints/curriculum/lessons/compost-stew.



DIY veggie stock! Another way to recycle food waste is to save veggie scraps in a bag in the freezer to make vegetable broth. Once the bag is full, you can put scraps in a pot, cover with water, add a bay leaf and a sprinkle of salt and pepper, then simmer on the stove for a couple of hours. Strain the solids out and then you can either use the finished vegetable broth right away to make soup or freeze it for later. Most veggie peels and not-eaten leaves are good for stock; fruits, cucumbers, and lettuces are not good for vegetable stock. Remember, you can compost your discarded stock veggies, too!

Activity Five: Prepare a Recipe

Let’s put it all together by using what we have learned to prepare a simple recipe together. Make sure students wash their hands and the produce, use the knife safely, and where possible, dispose of the food waste in a compost bin. This is also a good opportunity to practice reading a recipe. We have selected a few FRESHFARM FoodPrints Recipes below to get started. Visit the FRESHFARM FoodPrints Recipes site at freshfarm.org/recipes to choose from a variety of recipes by season, or choose one of your own.

Recipes from FRESHFARM FoodPrints:



Fall: [Yogurt Parfait](#)
[Black Bean Confetti Salad](#) and Homemade [Tortilla Chips](#)



Winter: [Apple Beet Carrot “ABC” Salad](#)
[Carrot Muffins](#)



Spring: [Colorful Kale Salad](#)
[Hummus](#) and Fresh Veggies



Summer: [Fresh Tomato Salsa](#)
[Basil Pesto](#)

For more guidance on working with students in the kitchen, check out the FRESHFARM cooking video resources by visiting freshfarm.org/foodprints/cooking-skills-videos.



6 INVESTIGATION SIX: WHAT IS IT YOU ARE EATING?

In this investigation, participants will research ingredients in common snack foods and evaluate how they affect our body and the environment.

LEARNING OBJECTIVE: The goal of this investigation is for participants to understand some of the ingredients in common foods, and the potential impact of food choices on the environment.

M MATERIALS:

- A variety of processed food packages for exploring nutrition labels
- Clear cups, spoons, and ingredients to mix up the “first 5 ingredients” in these packaged foods—*supplies to have on hand for this mixing activity will likely include white sugar, white flour, cornstarch, corn syrup, salt, oil, and food dye. Check the package labels you are going to use ahead of time to be sure you have the first 5 ingredients handy for each!*
- Poster-making materials: poster board, pencils, markers, other visuals to cut out, scissors, glue or tape

⚙ INSTRUCTIONS

Ask students to imagine they are in their local grocery store. Like most grocery stores, the products around the edges are those made with whole, minimally processed ingredients such as fruits and vegetables, dairy, and animal protein (eggs, meat, chicken, fish). We know the source of all these foods—they come directly from either the ground or an animal.



Now, let's think about the products in the middle of the average grocery store. Most of these are processed foods and the vast majority of them are based on just a few ingredients. Let's look more closely at some common processed foods and consider why they might be problematic for our bodies and/or the environment...

Most of these items are processed foods which means they have been modified in some way from their original state.

■ **Minimally processed** foods include items such as bagged spinach or cut vegetables, canned tomatoes or frozen fruit. Freezing or canning fresh fruits and vegetables can help preserve them for later use. This can help to reduce food waste because they can be stored safely for much longer than fresh versions. They are also often a less expensive way to incorporate more fruits and veggies and lean proteins like beans into your diet.

■ **Heavily processed** foods include cookies, crackers, chips, and many prepared foods such as pizzas and frozen dinners. Let's look at some examples of those foods to see how they might be problematic for our bodies and the environment.

ASK: Which type of food do you think has more nutrients?
Do you know the main ingredients in your favorite snacks? Are they minimally processed or heavily processed?



The big three:

Many of our snacks are made primarily from corn, soybeans, and wheat.



ASK: Why is this a problem?

- These three ingredients are often genetically modified (GMOs) which aren't what our bodies are designed to eat.
- GMOS puts a strain on the land and increases the use of pesticides and fertilizers which is known to be damaging to the land.
- Growing a monoculture (a LOT of one kind of crop) requires tilling the land, which leads to soil erosion.
- Why only eat corn, soy, and wheat? When we eat a diversity of grains, we get different nutrients.

To learn more about GMOs, check out this website: nongmoproject.org



Activity One: The Truth in Labels

Show students a variety of highly processed foods whose packaging makes them appear to be nutritious. Some phrases to look for include: *Heart Healthy, Made with Real Fruit, Made with Organic Wheat, 100% Natural.*

First explore, the front of one package together:

- What does it say/ What do you see?
- What is your impression of this food?

Next, look at the Ingredients list. Read the list of ingredients aloud, explaining that they are listed in the order of the amount used. Discuss with students how the actual ingredients compare to their impressions from the front of the package. (Don't be afraid to mispronounce a few ingredients. That's the point!)

ASK: If you are what you eat, are these ingredients something you want to put in your body?

What fruit or vegetable does this ingredient come from?

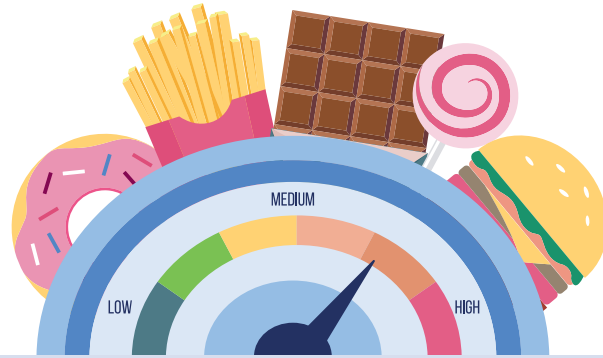
Then, highlight these points in a discussion with students:

- Highly processed foods often have very long lists of ingredients
- Highly processed ingredients are sometimes hidden in a product, such as corn syrup as a sweetener (ketchup, yogurt, pasta sauce, salad dressing), cornstarch as a thickener in soups and gravies.
- There are many ingredients listed that don't seem to be food.
- Sugar is often a primary ingredient, though often it is disguised under a different name -- fructose, glucose, sucrose, and maltose are just a few!
- The pictures on the box often do not seem to accurately represent the list of ingredients. For example, if the first ingredient is flour, that is what the food is mostly made of. If the label says "made with real fruit" and/or there are a bunch of images of fruit on the packaging, but no fruit is listed among the ingredients until quite far down on the list, there isn't much fruit in it, is there?



Show students a variety of different packaged foods including crackers, cookies, granola bars, cereals, etc. Explain that they will first use the product's name and packaging to predict if it is primarily made from nutritious ingredients. They will then examine the ingredient list to identify the 5 primary ingredients and consider whether the product is a nutritious choice. Finally, students can mix the first 5 ingredients in a clear cup and then give a new name to their packaged food based on what they think would be a more accurate and informative way to represent it.

BE A SUGAR DETECTIVE!



Most of us agree that sugar is delicious. Humans have long enjoyed eating sweet foods. When our ancestors hunted for food thousands of years ago, they discovered that sweet foods were safe and less likely to be poisonous. From that point forward, human brains made positive associations with sweet foods. So, it makes sense that we have a preference for sweets when they are available.

Why then should we avoid eating lots of sugar?

First, not all sugar is a problem! There are many foods that have sugar, including fruits and vegetables. These foods are nutritious and contain fiber, which is important for healthy digestion.

The foods we eat with added sugar, like cookies, soda and candy, usually don't contain many other nutrients like protein, vitamins, minerals or fiber.

These added sugars enter your bloodstream rapidly because there aren't any nutrients or fibers to slow down their digestion. Your body has to work hard to clear all this sugar from your bloodstream, which makes your pancreas work overtime to produce insulin. This can lead to diabetes.

Sugar can also make you feel full, so you don't eat other foods with important nutrients that help you grow and stay healthy.

Sugar feeds the microbes in your body that thrive on sugar. When sugar-thriving microbes overpower other bacteria in your body, they send messages to your brain to make you want to eat more sugar. That is why people often say that sugar is addictive.

You might be surprised how many products you eat have added sugar in them. Sometimes the sugar is hidden in the nutrition label under a different name.

Why do you think a company might try to 'hide' the sugar in its product?

Common Names for Sugar

| | | |
|---------------------|-----------------------|--------------------------|
| Agave nectar | Corn Sweetener | Glucose |
| Barley malt | Corn syrup | High-fructose corn syrup |
| Beet sugar | Corn syrup solids | Maltodextrin |
| Brown rice syrup | Crystalline fructose | Maltose |
| Cane juice crystals | Date sugar | Rice syrup |
| Cane juice | Dextran | Sorghum |
| Cane sugar | Ethyl maltol | Sucrose |
| Cane syrup | Evaporated cane juice | Sugar/Invert sugar |
| Carob syrup | Fructose | |
| Caster sugar | Galactose | |



Activity Two: Become a Packaging Pro

Now let's look at the packaging. Much of the packaging used for snacks, particularly single servings, is plastic and non-recyclable. On the other hand, an apple, banana or carrot does not need extra packaging.

Look to see where the item was produced. Discuss with participants the environmental impact is in terms of fuel and energy use of producing, packaging, and then transporting your favorite chips or cookies many miles.

Fresh foods sometimes travel long distances, too. Can you think of some things you can do to find foods that don't have to travel as far?



**DOES
MY FOOD
NEED A
PASS-
PORT?**

<https://cuesa.org/learn/how-far-does-your-food-travel-get-your-plate>

Often in the grocery store we can find foods that would not be available at our farmers markets or school gardens. These foods have often had to travel from another part of the country or even another country to get here. On average, a fruit or vegetable travels about 1,500 miles from where it is grown to the store where it is sold! Many of the oranges we eat come from Florida and blueberries come all the way from South America. Where possible, it is a good environmental choice to use produce that is locally in season. Often it tastes better as well, since it can be picked at peak ripeness rather than ripening in a truck or store.

Activity Three: Build a Campaign

Using your knowledge from this lesson, start spreading the word: make a poster to teach about the health and environmental impacts of eating processed foods and snacks! Or, make a poster to encourage others to eat less processed foods and snacks.

Choose an audience for your poster—it can be peers, younger children, community, etc.

Each poster should have:

- A clear message or slogan
- A nice, uncluttered visual
- A tip for others to help them choose an environmentally-friendly snack



7 INVESTIGATION SEVEN: BUILDING THE SNACK OF MY DREAMS

This investigation focuses on exploring what makes a snack popular and creating a snack that is both nutritious and delicious.

LEARNING OBJECTIVE: The goal of this culminating investigation is for students to design and promote a snack that is both nutritious and delicious.

M MATERIALS:

- A variety of snacks
- Vitamins in the foods we eat handout
- Paper/pencil/supplies for designing a snack and promotion
- Ingredients for ideal snacks in Activity 4

G INSTRUCTIONS

Activity One: Reflecting on our Favorite Snacks

Display a variety of snack foods, including chips, cookies, apples, carrot sticks, hummus, pickles, etc.

ASK: which snacks do you like, and why. Encourage participants to think about why they like certain snacks and to articulate the different tastes or textures they enjoy.

For example:

- Do you like sweet or salty? Or a combination?
- Do you like the taste of something spicy?
- Do you prefer soft or crunchy?



Activity Two: What does a Nutritious Snack Look Like?

Discuss the idea of creating a snack that will be delicious and will also be nutritious.

Remind students of what they learned in Investigation 2: we discovered that many of our snacks are made up of a lot of highly processed ingredients, and are often extensively packaged and processed.

Invite youth to also consider nutrients, protein, and fiber as important dietary components:

■ Nutrients include vitamins and minerals. Examples of some specific nutrients and the foods that include them are listed on the attached Vitamins in the Foods we Eat guide.

■ Protein helps build and repair muscles. Examples of lean protein include seeds, nuts, eggs, and fish.

Fiber helps you feel full and keeps things in your body running smoothly. Fiber is in whole grains, fruits, and vegetables. It is not included in juices or fruit-flavored snacks.

Activity Three: DIY Snack Challenge

Challenge students to invent a snack that includes some of their favorite snack characteristics (sweet, salty, etc.) and is also made from whole foods. One idea is to base the snack around a seasonal ingredient.

For example:


Fall:
apple or
beet


Winter:
carrot or
apple


Spring:
spinach or
snap peas


Summer:
yellow
squash or
tomato.

Use the attached Delicious, [Nutritious Snack planning handout](#), or questions from it, to help students organize their ideas. They can work individually, in pairs, or on a small team.

Start working on how to promote their snack. They can choose to present their snacks in person or can create a short video clip such as an Instagram post that explains the nutritional benefits of the snack, as well as why it tastes so good. Students may choose to promote a snack that doesn't involve any cooking or preparing, such as an apple.

Activity Four: Prepare and Present Your Nutritious and Delicious Snack!

In the final session, students will prepare their ideal snacks and then 'pitch' them to their peers. In planning this investigation, this session should be scheduled independently as you will need to bring in the ingredients they identified in Step #3 in order to create their snacks.

Participants will use the first part of this session to prepare their snack and practice their presentations. After everyone has shared, participants can vote on their favorite snack and presentation or invite community members to participate.

It is helpful to have a rubric that includes a section both for the snack and the promotion. For example, you may create a one-page "review" worksheet for panelists to complete that includes:

For snack

- Is the main ingredient a fruit or vegetable?
- What nutrients and/or fiber does it contain?
- Does it look appealing?
- Does it taste good?

For promotion

- Are you convinced this is a nutritious snack? Why?
- Does the promotion accurately portray the snack ingredients?
- Who would the snack appeal to?



TIPS FOR ADAPTING THESE ACTIVITIES TO BE TAUGHT VIRTUALLY

If you are teaching this lesson virtually, here are some things to keep in mind:



For cooking activities

Send families a supply list (or get them supply bags) ahead of time. Basics needed for cooking are a knife, cutting board, mixing bowl, and ingredients for the recipe. Don't forget to include a copy of the recipe (printed and included in supply bags, or included as a printable attachment when you email the supply list)!

Make sure you have a setup where students are able to see you and the ingredients you are preparing. It may be helpful to have a second adult/teacher managing the chat window and checking for latecomers and questions/comments, so you can focus on the content.



For poster/brainstorm/discussion activities

You may need to modify pair/small group discussions to be whole group or individual reflection activities.



For shared visuals or worksheets, depending on the activity, you can screenshare or print/send copies ahead of time for students to use (Word if you want them to be able to modify it directly; pdf if you want it just as a reference material for them).

VITAMINS IN THE FOODS WE EAT

Instructions: This chart provides information on the nutritional content of different foods as well as their health benefits.

| Vitamin | Where do you find it? | What does it do? |
|----------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Vitamin A | Yellow and orange fruits and vegetables Leafy green vegetables | Keeps eyes, skin, teeth and bones healthy and boosts immune system |
| Vitamin B | Meats, nuts, fish, dairy, eggs, beans and peas Leafy green vegetables | Converts food into energy, involved in making red blood cells |
| Vitamin C | Citrus Fruits Cantaloupe, strawberries, tomatoes, broccoli, cabbage, kiwi, red peppers | Heals wounds, helps body resist infection |
| Vitamin D | Milk, fish, egg yolks, liver, the sun | Necessary for strong teeth and bones |
| Vitamin E | Nuts, avocados, seeds, pumpkin, Leafy green vegetables | Keeps our hearts healthy and arteries clean, helps protect our cells |
| Vitamin K | Dairy Green Vegetables | Keeps our blood healthy and clotting properly |

This worksheet has been adapted from the FoodPrints Eat the Rainbow Lesson. You can access the full FoodPrints Eat the Rainbow Lesson by visiting www.freshfarm.org/foodprints/curriculum/lessons/eat-the-rainbow.

A DELICIOUS NUTRITIOUS SNACK

Instructions: You and a partner are designing a snack that is delicious, nutritious and will be popular with your friends. Use these questions to guide your thinking about the new product.

1. What characteristics do you want your snack to have? (Salty, sweet, spicy, crunchy, etc.)
2. What will be the foundational ingredient in the snack? (Potato, kale, carrot, apple, etc.)
3. How will you prepare it so that it has the desired taste experience?
Will you eat it cold, or cook it? Add a spice or sweetener?
4. What will you name your snack?
Use the space below to make an advertisement for the snack.

ADDITIONAL ACTIVITY IDEAS:

1. Talk to farmer that has hogs to see if they will take food product.
2. Play FIRST Lego robotics “Trash Trek” & “Food Factor” games: <https://www.firstlego-league.org/past-challenges>.
3. Ugly Food Taste Test:
 - Present kids with a “normal” vegetable and an “ugly” one. For example, 1 smooth straight carrot and 1 deformed carrot. Have them taste each one (blindfolded or not).
 - Discuss the similarities and differences. Then, use them for a recipe.

ADDITIONAL RESOURCES

VIDEOS

1. “Dirt!” The Movie is a 2009 American documentary film directed by filmmakers Gene Rosow and Bill Benenson and narrated by Jamie Lee Curtis. It was inspired by the book *Dirt: The Ecstatic Skin of the Earth* by William Bryant Logan.
 - <https://www.imdb.com/title/tt1243971/>
 - <http://www.dirtthemovie.org/>
2. “Kiss the Ground” Movie for School: <https://kissthegroundmovie.com/for-schools/>
 - Movie trailer: https://www.imdb.com/video/vi3767910681/?ref_=tt_vi_i_1
 - Movie classes: https://kisstheground.mykajabi.com/store?gclid=CjwKCAjw-L-ZBhB4EiwA76YzOe2S57VfUI7cnK4hxRIJtkEOKBLPi55eaZu1HY1vAgJLKS6AnciBjxoCynMQA-vD_BwE
 - Movie website: https://kisstheground.com/?gclid=CjwKCAjw-L-ZBhB4EiwA76YzObaSn-7Qcv383NV5kQR4BDF2Im1BIVwRMtY-ttHL1Fh1M_TwaT5uGQRoCuBwQAvD_BwE

REFERENCE LIST

ARTICLES

1. Food Waste Is a Serious Problem. Here Are 9 Ways to Throw Away Less Food: <https://www.discovermagazine.com/environment/food-waste-is-a-serious-problem-here-are-9-ways-to-throw-away-less-food>
2. In Europe, Ugly Sells In The Produce Aisle <https://www.npr.org/sections/the-salt/2014/12/09/369613561/in-europe-ugly-sells-in-the-produce-aisle>
3. Leftovers--Into the Trash or Kitchen Disposal? Essential Answer <https://stanfordmag.org/contents/leftovers-into-the-trash-or-kitchen-disposal-essential-answer/>
4. Leftovers--Into the Trash or Kitchen Disposal? Nitty-gritty <https://stanfordmag.org/contents/leftovers-into-the-trash-or-kitchen-disposal-nitty-gritty>
5. Food Waste in landfills: <https://pela.earth/blogs/news/food-waste-in-landfills>

6. The Feed Editor's Guide to Cultural Grocery Shopping: <https://fooditor.com/the-fooditor-guide-cultural-grocery-shopping-chicago/>

7. Movie Farmer: A Virginia Farm Leads the Way in Certified Regenerative Practices <https://www.middleburglife.com/a-virginia-farm-leads-the-way-in-certified-regenerative-practices/>

WEBSITES

1. Virtual tour of fruit

Apple Orchard: <https://www.farmfood360.ca/en/apple-orchard/>

Orange Grove: <https://youtu.be/YurFUFnwf4o>

2. Food Revolution Networks: <https://foodrevolution.org/blog/eating-the-rainbow-health-benefits/>

3. Apeel product: <https://ellenmacarthurfoundation.org/circular-examples/apeel>

4. Food Waste in America Since 2022: <https://www.rts.com/resources/guides/food-waste-america/>

5 The Problem of Food Waste, <https://foodprint.org/issues/the-problem-of-food-waste/>

6. World Food Hunger 2020: <https://foodaidfoundation.org/world-hunger-statistics-2020/>

7. Connect with local colleges who are doing research in this area of study

Virginia State University: <https://www.vsu.edu/agriculture/>

NASDA: <https://www.nasda.org/organizations/virginia-department-of-agriculture-consumer-services>

USDA: <https://www.fns.usda.gov/news-item/maro-051722>

8. Good Samaritan Act (legal protection when giving food): <https://www.feedingamerica.org/ways-to-give/corporate-and-foundations/product-partner/bill-emerson>

9. Funding Opportunities and EPA Programs Related to the Food System <https://www.epa.gov/sustainable-management-food/funding-opportunities-and-epa-programs-related-food-system>

10. USDA Food related funding opportunities: <https://www.usda.gov/foodlossandwaste/funding>

11. Virginia Schools Pilot Offers Food Waste Education

<https://www.usda.gov/media/blog/2021/12/13/virginia-schools-pilot-offers-food-waste-education>

<https://www.usda.gov/topics/urban/coop-agreements>

12. Green Up Our Schools: <https://www.greenupourschools.org/apply>

13. Food and Agriculture Organization of the United Nations: <https://youtu.be/Md3ddmtja6s>

14. DC School system composting lesson plans: <https://dgs.dc.gov/node/1200825>

15. Recycling and Composting Resources for Every State: <https://solusgrp.com/resources/state-by-state-recycling-composting-information>

16. Composting (at home, in FACS room, in cafeteria [sell dirt as community fundraiser?]):

<https://www.epa.gov/recycle/composting-home>

<https://helpmecompost.com/home-composting/implementation/how-to-make-compost-from-kitchen-waste/>

17. Indoor composting

<https://bokashicycle.com/how-it-works/>

<https://growingorganic.com/shopping/product/kashi-blend-bokashi/>

<https://growingorganic.com/shopping/product-category/soil-compost/page/3/>

https://store.bokashicycle.com/Household-Composting-Bins-Fermenters_c_17.html

BOOKS

1. Menzel, Peter and D'Aluisio, Faith. *Hungry Planet, What the World Eats*. Material World, September 2007.
2. Beed, Fenton Douglas, Telemans, Bruno, Taguchi, Makiko. *Fruit and Vegetables Opportunities and Challenges for small-scale sustainable farming*. FAO, September 2021,

VIDEOS

1. How recycling Works
<https://www.youtube.com/watch?v=b7GMpjx2jDQ>
2. Why The United States Is Turning To Recycling Robots
https://www.youtube.com/watch?v=1mxaN_xqQh4

FOOD WASTE RESOURCES

1. The Food Waste Iceberg
<https://youtu.be/Md3ddmtja6s>
2. How can we limit trash production?
<https://www.dumpsters.com/blog/us-trash-production>
<https://www.dumpsters.com/blog/us-recycling-statistics#us-world-comparison>
3. Food Recovery Hierarchy
[Reducing the Impact of Wasted Food by Feeding the Soil and Composting | US EPA](#)

This Toolkit is a response to the component of the Healthy Eating priority of the Live Healthy Fairfax 2019-2023 Community Health Improvement Plan – to develop and disseminate culturally appropriate messages and materials to promote consumption of fruits and vegetables.



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To request this information in an alternate format, contact the Fairfax County Health Department 703-246-2411 TTY 711. A Fairfax County, Va., publication. October 2022.