

**4-H at
HOME**



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MY PLATE

Design a healthy plate using the five food groups.



My Plate

—
Design a healthy plate using the five food groups.

About the Activity

Imagine you are cooking your own healthy meal. Which foods would you put on your plate? In this activity, kids will learn about the five main food groups and the importance of a balanced diet.

Tucson Village Farm (TVF) is an urban farm built by and for the youth of Pima County Arizona. It was developed in partnership with the Pima County Cooperative Extension and the University of Arizona. A great way to start this activity is to learn about the different food groups by watching the [TVF My Plate Video](#).

Supplies

These simple materials will get you started:

- Paper plate
- Paper
- Scissors
- Pencil
- A food magazine or circular (or colored pencils, markers, or crayons to draw food)

Grades: 3 - 5

Topic: Agriculture, Healthy Living

Time: 30 minutes



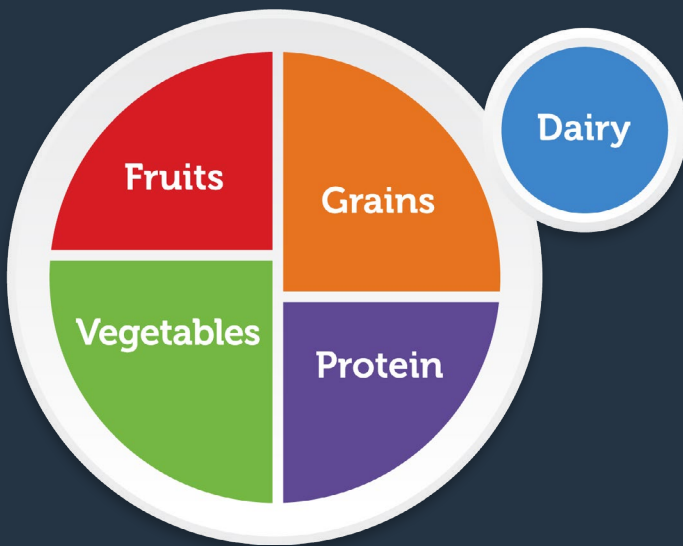
Activity Steps

Follow these steps to create your own healthy meal.

1

First, take a look at the plate graphic to see the sections that you're going to draw on your plate.

DID YOU KNOW? The five food groups are vegetables, fruits, grains, dairy, and proteins.



2

Now that you know what you are drawing, take your pencil and draw four sections on your plate for vegetables, fruits, grains, and proteins. Be sure that the sections on your plate match the sections in the example.

DID YOU KNOW? Half of your plate should contain fruits and vegetables. These foods contain the fiber, vitamins, and minerals your body needs to stay healthy. Learn more about fruits and vegetables from TVF by visiting [here](#).

3

Don't forget your dairy! Using a sheet of paper or another paper plate, cut out a circle to create your dairy section.

DID YOU KNOW? Dairy contains nutrients like calcium which helps you to build and maintain healthy bones. Learn more from TVF about dairy [here](#).

4

Once you've mapped out space on your plate, be sure to label each section with the food group's name.

DID YOU KNOW? The food groups were created by the United States Department of Agriculture (USDA).

5

Now it's time to add some food to your plate. Check out our suggestions on which types of food can fit into each group. Then, cut out food from your magazine or draw each food in the section it belongs to. Remember that balance is important, so be sure to put together a meal that is diverse in color and flavor!

Test Your Knowledge

See how much you've learned about the food groups!

QUESTION 1

How many food groups are there?

- a. Two
- b. Three
- c. Nine
- d. Five

QUESTION 2

Which food group contains nutrients like calcium to help you build and maintain healthy bones?

- a. Dairy
- b. Grains
- c. Fruit
- d. Vegetables

QUESTION 3

True or false? The food groups were created by the United States Department of Agriculture (USDA)

- a. True
- b. False

QUESTION 4

Half of your plate should contain:

- a. Fruits and dairy
- b. Fruits and vegetables
- c. Grains
- d. Protein and vegetables

► [Click here](#) to play our interactive game!

Reflection Questions

Bonus questions to inspire wonder:

- What are some foods around your house that belong to the five food groups?
- Why is a balanced diet important to your health?
- Why do you think that there are no junk foods, like candy or sugary drinks, in any of the food groups?



Investigate & Explore

Take your new knowledge
to the next level.

Eating well-balanced meals is a great way to grow strong and healthy. For decades there has been a scientific connection between food and overall health. These studies have proven that foods like fruits and vegetables can help to maintain a healthy body and prevent chronic diseases. So the next time you go to make a plate or grab a snack, remember that your food is your fuel, and every bite counts!



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RETHINKING SUGARY DRINKS

Learn which beverages are healthy and hydrating.





Rethinking Sugary Drinks

Learn which beverages are healthy and hydrating.

About the Activity

In this activity, kids will learn nutritional facts for different beverages. By the end, they will have a better understanding of which drinks are the healthiest options to keep them happy and hydrated.

Tucson Village Farm (TVF) is an urban farm built by and for the youth of Pima County Arizona. It was developed in partnership with the Pima County Cooperative Extension and the University of Arizona. A great way to start this activity is by watching [Rethink Sugary Drinks](#), TVF's educational video that covers the differences between water and sugary drinks.

Supplies

These simple materials will get you started:

- Three beverages with nutrition facts (example: bottled water, milk, soda, or juice)
- Paper
- Pencil
- A red and green marker or crayon (or two different colors)

Grades: 3-5

Topic: Agriculture

Time: 1 hour





Activity Steps

Follow these steps to complete the activity.

1

Take a moment to collect all three of your beverages. When choosing your drinks, try to include water as one of your options.

DID YOU KNOW? Humans, plants, and animals need water to survive. Water is the best way to stay healthy and hydrated no matter what species you are. Learn more [here](#).

2

Before you complete the activity, make a prediction! Sort the three beverages in order of the most to least healthy.

DID YOU KNOW? Sports drinks could cause you to have less energy? Sports drinks can be just as sugary as soda. Drinking too much of them can cause dehydration, stomach aches, and drain your energy.

3

Record the nutrition information from each beverage using your worksheet. You can print out the PDF or hand-write the worksheet using pencil and paper.

4

Compare the nutritional value of each beverage, and highlight the best in green and worst in red.

DID YOU KNOW? There are two types of sugars: added sugar and natural sugar. Added sugars are added to beverages for flavor and are in things like energy drinks, soda, and most juices. Natural sugars are created in fruits and dairy, plus are beneficial to our bodies!

Now that you have compared the nutritional information of each beverage, how does it match up with your prediction about the most and least healthy beverages?

DID YOU KNOW? One way to add flavor to your water is by infusing it with fruit! Strawberries, pineapple, and lemon are just a few of the many fruits that will give your water some natural flavor and sweetness. Learn how to make infused water [here](#).

Test Your Knowledge

See how much you've learned about sugary drinks!

QUESTION 1

Energy drinks can cause you to have less energy.

- a. True
- b. False

QUESTION 2

Who needs water to survive?

- a. Only humans
- b. Humans, plants, and animals
- c. Only plants
- d. Only animals

QUESTION 3

Added sugar is...

- a. Natural
- b. Infused water
- c. Sugar added to beverages for flavor
- d. Milk

QUESTION 4

The best way to stay hydrated is by drinking...

- a. Milk
- b. Soda
- c. Energy Drinks
- d. Water



Reflection Questions

Bonus questions to inspire wonder:

- Were you surprised by any of the nutritional facts or ingredients in your beverages?
- Why do you think water is so important for human, animal, and plant survival?
- How can you use nutritional facts to make healthier choices for beverages and other foods?



Investigate & Explore

Take your new knowledge to the next level.

Staying hydrated is essential to living a healthy life. Dehydration takes place when the body loses more fluids than it takes in. So when you sweat a lot while playing sports or while playing with friends, it is important to drink plenty of water so that you don't dehydrate. In addition to keeping your body hydrated, water also takes care of the inside of your body. We are made of 70% water, which makes up the majority of our blood, digestive juices, and sweat.

The next time you're thirsty, take a moment to remember how water will quench your thirst, plus keep your entire body functioning.

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Worksheet

Use this helpful guide to record the nutrition facts for your three beverages.

Serving Size:
Beverage 1: _____
Beverage 2: _____
Beverage 3: _____

Calories per Serving Size:
Beverage 1: _____
Beverage 2: _____
Beverage 3: _____

Vitamins & Minerals Listed

Beverage 1:

Beverage 2:

Beverage 3:

Macronutrient Amounts Per Serving (grams)

Beverage 1:
Carbohydrates: _____ grams
Sugars: _____ grams
Protein: _____ grams
Fat: _____ grams

Beverage 2:
Carbohydrates: _____ grams
Sugars: _____ grams
Protein: _____ grams
Fat: _____ grams

Beverage 3:
Carbohydrates: _____ grams
Sugars: _____ grams
Protein: _____ grams
Fat: _____ grams

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MAKE YOUR OWN POPCORN

Learn the 'whole' story about this amazing snack.



Make Your Own Popcorn

Learn the 'whole' story about this amazing snack.

About the Activity

Who doesn't love popcorn?! In this activity, kids will learn about the nutritional value of whole grains as they make their own delicious popcorn. Through this process they will learn about corn and the benefits of other whole grains.

Tucson Village Farm (TVF) is an urban farm built by and for the youth of Pima County Arizona. It was developed in partnership with the Pima County Cooperative Extension and the University of Arizona. A great way to start this activity is by watching the [TVF Whole Grains Video](#).

Supplies

These simple supplies are all you'll need:

- Microwave
- Paper bag
- Popcorn kernels
- Vegetable oil
- Butter (optional)
- Salt (optional)
- Other seasoning (optional)

Grades: Pre-K - 5

Topic: Food Security, Agriculture, Healthy Living

Time: 10 minutes

Activity Steps

You're about to make popcorn with kernels of corn – each kernel is a single whole grain of corn. Whole grains are grains of any kind that have all three of their parts (more on that below); that's compared to refined or processed grains that have broken down those whole grains to include just one part of the grain. Eating whole grains on a regular basis is associated with lower rates of disease and a generally healthier diet and lifestyle.

Okay, let's get popping!

1

Pour 1/2 cup of popcorn kernels into your paper bag, and fold your bag over, crimping the paper so it will stay closed while the popcorn cooks.

DID YOU KNOW? The three parts of a whole grain are the bran, the endosperm, and the germ. The bran is a fiber-rich outer layer; the endosperm is a starchy middle layer; and the germ is a nutrient-rich core. Together, these three components are rich in vitamin B, vitamin E, and other minerals, proteins, and healthy fats.

2

Set the microwave to cook for 2 minutes, and turn it on.

DID YOU KNOW? How does popcorn become popcorn? The kernels of corn have water in them; the heat of the microwave melts the starch or the corn and vaporizes the water inside. The vaporized water and melted starch build up in pressure, then burst through the hull of the corn in the shape of a starchy foam that then cools into the fluffy popcorn we know and love!

3

While your popcorn pops, take a look around your kitchen and check out some of the ingredients on various packages of food – cereal, crackers, chips, etc. If an item says it is made from whole grains or whole grain flour, that's healthier for you than products that say they are made from enriched flours. The more whole-grain products in your kitchen, the better!

DID YOU KNOW? So-called enriched flours are refined grains (those that have only the endosperm) that have vitamins added back into them to try to retain the nutrition lost from the process of breaking down the whole grain.

4

Once your popcorn is done cooking, take it out of the microwave, let it cool, and enjoy! You can add salt, butter, or other seasonings to make your popcorn just the way you want it.

Test Your Knowledge

See how much you've learned about whole grains!

QUESTION 1

Whole grains are rich in _____.

- a. Fiber
- b. Vitamin B
- c. Vitamin E
- d. Other minerals and proteins and healthy fats
- e. All of the above

QUESTION 2

Enriched flours _____.

- a. Have nutrients added back to make up for what was lost in processing
- b. Have just one of the three parts of a whole grain
- c. Not as healthy as whole grains
- d. All of the above

QUESTION 3

True or false? Popcorn is a whole grain.

- a. True
- b. False

QUESTION 4

True or false? Corn kernels have water stored inside.

- a. True
- b. False

Reflection Questions

Bonus questions to inspire wonder:

- What food items in your kitchen are made with whole grains? Which are not?
- Are there any food items in your kitchen that might not be as good for your body as you thought they were?
- Popcorn is a whole grain, which is healthy for you? But once we add lots of butter or salt to our popcorn, is it still very healthy for you? What are some healthier toppings you could put on?



Investigate & Explore

Take your new knowledge to the next level.

Whole grains are how wheat and corn naturally grow, of course. But the industrialization movement of the 19th century, and the rise of processed foods in the 20th century, more grains were milled to remove the germ and the bran so that those products could stay on shelves longer without spoiling. While that seemed like a good idea at the time, the result was that people across the world increasingly ate grain products with less and less nutritional value.

Today, we better understand the importance of eating whole grains and less-processed foods, but highly processed foods continue to be widely available and are still central to many of our diets. But the more whole grains we eat, the better for our bodies!

Bonus Activity:

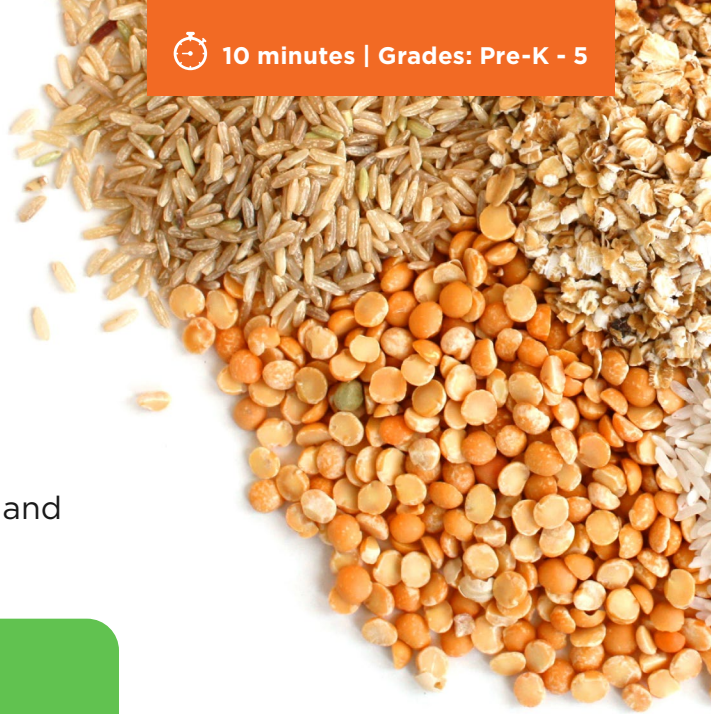
For some more whole-grain fun, print out the crossword puzzle attached to this activity and find all of the grain words in the word bank.

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Grains Word Search

Find the grain words from the word bank in the box and highlight them! Words can be vertical or horizontal.

Word Bank:

- Popcorn
- Pasta
- Oatmeal
- Cracker
- Rice
- Cereal
- Bread
- Tortilla

G	D	S	H	R	C	R	A	C	K	E	R	P	H	T	C	G	E	I	L
R	Q	V	B	N	D	V	Y	K	L	O	W	O	A	T	M	E	A	L	P
U	D	P	A	E	G	H	N	J	T	D	T	I	L	O	P	G	S	N	D
R	T	O	E	Q	F	B	J	Y	W	B	O	U	I	T	E	Q	W	H	F
A	D	P	R	H	R	I	C	E	R	H	R	S	W	A	C	X	Z	H	C
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M	T	O	T	V	K	O	E	S	V	K	I	G	R	F	C	S	W	G	R
H	G	R	N	H	R	Q	D	C	V	T	L	T	B	R	E	A	D	V	E
J	H	N	Y	G	H	E	W	S	X	V	L	N	M	J	T	E	W	R	A
P	A	S	T	A	V	E	H	G	Q	D	A	L	I	W	Q	V	U	H	L