

Whole Grains (4th Grade)

Materials and Ingredients

- ✓ Text – Whole Grains (attached)
- ✓ green bell pepper, olives, pineapple, tomato sauce
- ✓ grated cheese, whole wheat English muffins (1/2 per student)
- ✓ plates, serving containers, plastic spoons for serving
- ✓ cutting board, teacher knife, bowls, can opener



Whole Grain Activity

- ✓ dried wheat stalks, whole wheat flour, white flour, brown rice, white rice
- ✓ black construction paper, light colored pencils or crayons (teacher provides)
- ✓ activity sheet copies

Lesson Preparation

- ✓ Wash and cut up green pepper into small pieces
- ✓ Divide English muffins carefully in half
- ✓ Put pizza ingredients in serving containers; students will prepare their own pizzas at 2 pizza creation stations

Introduction

- ✓ Start off with a short brain boost (see next page)
- ✓ Wheat stalk demonstration (see next page)
- ✓ Read Whole Grains text and discuss
- ✓ Whole grains are great to eat!

Process

- ✓ Pass out construction paper, whole wheat flour, white flour, brown rice, white rice & activity sheets
- ✓ Students observe the different forms of grains - (refer to complete lesson for details)
- ✓ Have students wash their hands using soap and warm water.
- ✓ Students make their own whole wheat English muffin pizzas.
- ✓ Discuss how students can choose whole grains in the lunchroom and at home.
- ✓ Whole grains are great to eat!

Family Letter

- ✓ Send home the family letter to let parents know about the fun activity students did in class.

Let's Wake Up Our Brains! Brain Boost Exercise!

Move Your Body! Let's get our hearts pumping!

- ♥ Jog in place. (30 seconds)
- ♥ Jump in place. (30 seconds)
- ♥ Squat up and down. (30 seconds)
- ♥ High knees in place. (30 seconds)



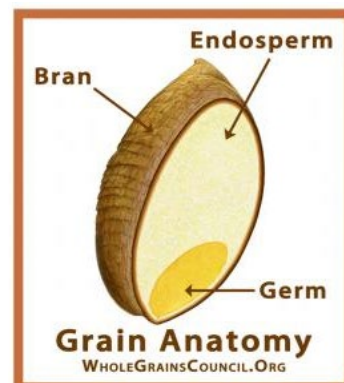
Wheat Stalk Observation

1. Show students the dried wheat stalks and ask them what they think they are.
2. Tell students that the stalks come from a wheat plant.
3. Ask them which part of the wheat plant they think we eat.
4. Tell them that we eat the kernels, or seeds of the plant.
5. Remove the kernels from the wheat plant and pass them to students. Have them observe the kernels. **Note:** The long thin needle-shaped thing is called the “beard” and the wheat kernel is inside the chaff (hull or husk).
6. Ask students how they think we eat the seeds.
7. Tell them that at first the seeds are ground into flour by machines and then made into all types of food, such as bread, pizza crust, noodles, cereals and crackers.
8. All foods made from wheat seeds fit in the grain group of MyPlate.
9. Tell students another example of a grain food is rice. Tell them that the rice we eat is really the seed or kernel of the rice plant.
10. Show the MyPlate poster to students and ask them to locate the grains group.
11. Explain to students that this group gives us energy and we should eat **whole grains** from this group every day.

Rice and Flour Observation

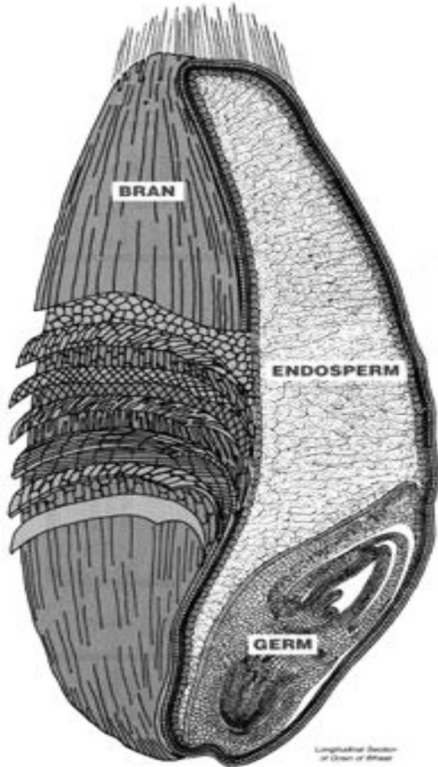
Important:

- ✓ white bread and whole wheat bread are both made from wheat flour
 - ✓ whole wheat bread, made from whole wheat flour, contains all parts of the wheat seed
 - ✓ white bread, made from white flour, only contains one part of the wheat seed
 - ✓ brown rice and white rice are both kernels (seeds) from the rice plant
 - ✓ brown rice contains all parts
 - ✓ white rice only contains the endosperm
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- ✓ The white rice kernels are a very clear white, shiny and polished whereas the brown rice looks rough and tan.
 - ✓ The whole wheat flour has brown flecks in it and the white flour is pure white.

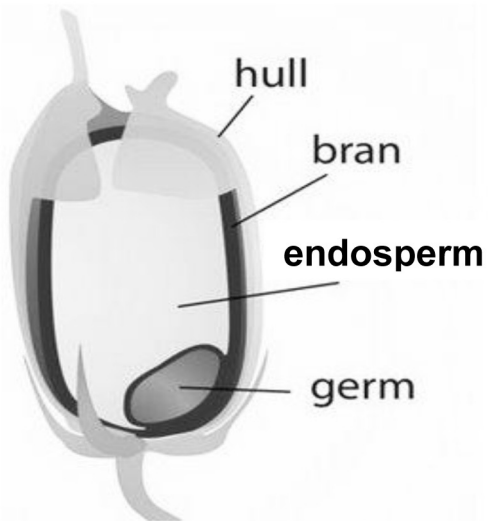


Whole Grains

Wheat Kernel



Rice Kernel



MyPlate recommends that we eat **whole grain foods** from the grain group. **What are whole grains foods?**

Foods from the grain group are made from the **kernels** (seeds) of certain plants such as **wheat** and **rice**. For example, **bread** is made from the seeds of the wheat plant and **rice** comes from the seeds of rice plants.

Whole grains are foods that are made from the whole seed and not just part of the seed.

Wheat kernels and rice kernels have at least three separate parts: the **bran**, the **germ**, and the **endosperm**. The bran is the outer covering that protects the kernel. The germ is the part where a new plant sprouts. The endosperm contains **starch** that provides food for the new wheat or rice plant until it can make its own food.

Whole wheat flour (whole wheat bread) and **brown rice** are made from the entire kernel which includes all three parts.

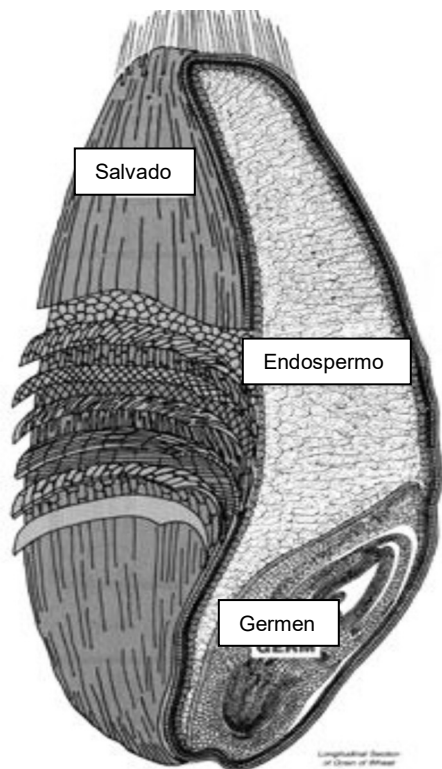
White flour (white bread) and **white rice** contain only the endosperm of the kernel. The bran and the germ of the kernel are removed.

Whole wheat flour and brown rice contain more valuable **vitamins**, **minerals**, and **fiber** than white flour and white rice. Therefore, when you eat **whole grains** you get more of the valuable **vitamins**, **minerals** and **fiber** your body needs. That is why eating whole wheat bread and brown rice is healthier than eating white bread and white rice.

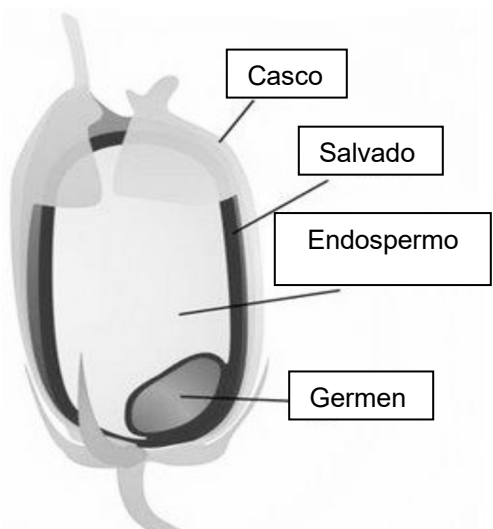
**Choose whole grains every day
for better health!**

Granos Integrales

Grano De Trigo



Grano De Arroz



Mi Plato recomienda que comamos alimentos del grupo de los granos integrales. **¿Cuales son las comidas que tienen granos integrales?**

Los alimentos del grupo de los granos integrales están hechos por el grano (semilla) de ciertas plantas como el trigo y el arroz. Por ejemplo, el pan está hecho de la semilla de la planta del trigo y el arroz viene de la semilla de la planta del arroz.

Los **granos integrales** son comidas que están hechas con el grano completo y no solo con parte del grano.

Los granos del trigo y del arroz tienen al menos tres partes separadas: el **salvado**, el **germen**, y el **endospermo**. El salvado es la parte de afuera que cubre al grano. El germen es la parte de donde la planta brota y el endospermo contiene el almidón, el cual provee alimento a la nueva planta de trigo o arroz hasta que esta pueda hacer su propio alimento.

La **harina integral** o de granos enteros (pan integral) y el **arroz color marrón** (integral) provienen de granos enteros el cual incluye esas tres partes.

La **harina blanca** (pan blanco) y el **arroz blanco** solo tienen la parte del endospermo del grano. Se les ha quitado el salvado y el germen del grano.

La harina integral y el arroz color marrón tienen más **vitaminas, minerales valiosos** y **fibra** que la harina blanca y el arroz blanco. Por eso cuando comes **granos integrales**, estás comiendo más de las **vitaminas, los minerales valiosos** y la **fibra** que tu cuerpo necesita. Es por eso que comer pan integral y arroz color marrón es más saludable que comer pan blanco y arroz blanco.

¡Escojan granos integrales todos los días para una mejor salud!

Whole Grains

Name: _____ **Date:** _____

Spend time observing and feeling the two different kinds of flour.

Rub the flour carefully between your fingers to feel the difference.
Describe the differences below.

Flour #1 looks _____. **Flour #2** looks _____.

Which flour feels smoother? _____

1. Why do you think there are there brown flecks in one of the flours?

2. Which flour is a whole grain and why? _____

Spend time observing and feeling the two different kinds of rice.

Roll the rice carefully between your fingers to feel the difference.
Describe the differences below.

Rice #1 looks _____. **Rice #2** looks _____.

Which rice kernel feels smoother? _____

1. Which rice kernel is a whole grain and why? _____

2. Explain why whole grains are healthy for you.

Granos Enteros

Nombre: _____ Fecha: _____

Observa y palpa los dos diferentes tipos de harina.

Frote la harina con cuidado entre los dedos para sentir la diferencia.
Describe las diferencias a continuación.

Harina #1 luce (se ve) _____. **Harina #2** luce (se ve) _____.

¿Cuál se siente más suave? _____

1. ¿Por qué crees que hay manchas marrones en una de las harinas?

2. ¿Que harina es la de grano entero y por qué? _____

Observa y palpa los diferentes tipos de arroz.

Pon el arroz cuidadosamente entre los dedos y siente la diferencia.
Describe la diferencia a continuación.

Arroz #1 luce _____. **Arroz #2** luce _____.

¿Cual grano de arroz se siente más suave? _____

1. ¿Cual es el grano entero y por qué? _____

2. Explica por qué los granos enteros son más saludables para tu salud.

Whole Grains (Teacher Only Answer Sheet)

Name: _____ Date: _____

Spend time observing and feeling the two different kinds of flour.

Rub the flour carefully between your fingers to feel the difference.
Describe the differences below.

Flour #1 looks white. Flour #2 looks brown.

Which flour feels smoother? **Flour #1 feels smoother.**

1. Why do you think there are there brown flecks in one of the flours?

I think there are brown flecks in one of the flours because it is whole wheat flour and has the bran, the germ and the endosperm in it.

2. Which flour is a whole grain and why?

Flour #2 is a whole grain because it has all three parts in it. I think this is true because it looks like it has more parts than flour #1.

Spend time observing and feeling the two different kinds of rice.

Roll the rice carefully between your fingers to feel the difference.
Describe the differences below.

Rice #1 looks clear white. Rice #2 looks tan.

Which rice kernel feels smoother? **Rice #1 feels smoother.**

1. Which rice kernel is a whole grain and why?

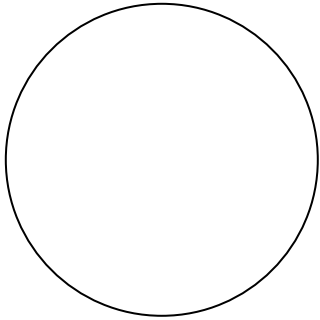
Rice #2 is a whole grain because it has all three parts in it. I think this is true because it looks like it has a covering on it and rice #1 looks clear white.

2. Explain why whole grains are healthy for you.

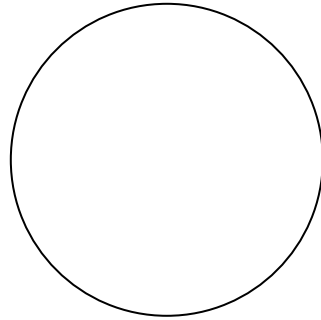
Whole grains are healthier for you because they have more vitamins, minerals and fiber in them. Our bodies need vitamins, minerals and fiber to stay healthy.

Whole Grain Experiment

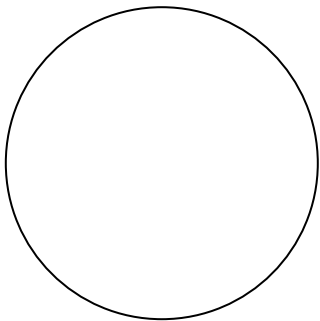
Sample (Teacher Only)



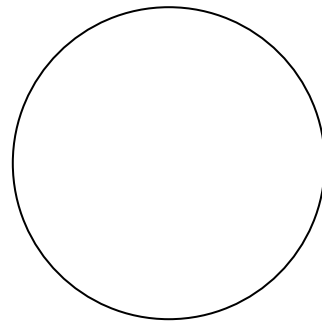
Flour #1



Flour #2



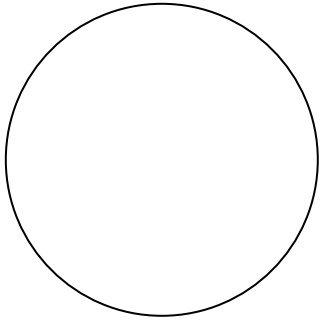
Rice Kernel #1



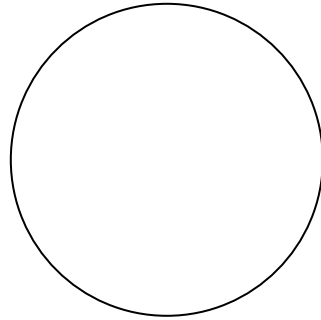
Rice Kernel #2

El Experimento de Granos Enteros

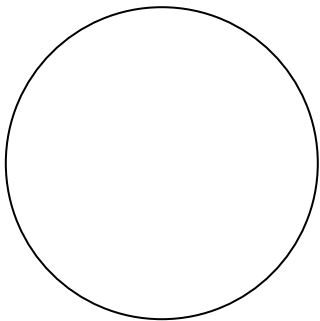
Ejemplo (Profesores solamente)



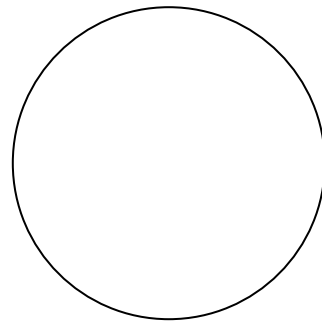
Harina #1



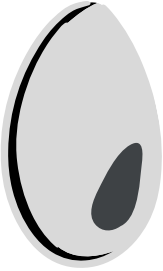
Harina #2



Grano de arroz #1



Grano de arroz #2



Today in class, your student explored the benefits of eating grains, specifically whole grains. Whole grains are one of two types of grains found on MyPlate. They contain the “whole” grain kernel: the bran, germ, and endosperm. There are many types of whole grains, including amaranth, bulgur, whole grain cornmeal, and wild rice. Whole grains are beneficial because they are filled with vitamins and minerals as well as dietary fiber, which helps keep our digestion system moving.



Scan the QR code to watch how to make the snack we made in class.

Whole Wheat English Muffin Pizza

Makes About: 6 servings Total Recipe Cost: \$9.40 - \$10.00

Ingredients

- 3 whole wheat English muffins
- 1/4 can pizza sauce (15 oz.)
- 1/4 green bell pepper
- sliced olives (4 oz.)
- 1/4 can pineapple tidbits (20 oz.)
- 1/2 cup mozzarella cheese



Directions

1. Everyone washes their hands.
2. Wash green bell pepper and cut into small pieces.
3. Open can of pineapple and drain.
4. Slice English muffins in half for pizza crust.
5. Spread about 1 tablespoon of pizza sauce onto 1 half of a muffin.
6. Top with pineapple, green pepper, and olives.
7. Spread about 1 tablespoon of shredded mozzarella cheese on top.
8. With an adult helper, warm up your pizza in a microwave or eat it cold.



One way to remove stress in the kitchen is to make one-dish meals like casseroles. They can be made in a single pot, skillet, or baking dish. One-dish meals are also a great way to use up leftovers and prevent food waste. Visit the QR code for a meal prep guide.

**Movement is about
nourishing the body and
the brain!**

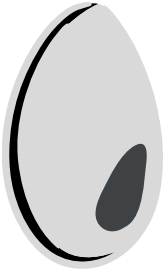


In Your Seat

Even a five-minute video that gets you moving benefits your overall health. Follow this QR code to do a fun activity.



On your Feet



Hoy en clase, su estudiante aprendió los beneficios de comer granos, específicamente granos integrales. Los granos integrales son uno de los dos grupos de granos que se encuentran en MiPlato. Contienen el grano “integral”: el salvado, el germen y el endospermo. Hay muchos tipos de granos integrales, incluidos el amaranto, el bulgur, la harina de maíz integral y el arroz silvestre. Los granos integrales son beneficiosos para nuestra salud porque están repletos de vitaminas y minerales, así como también de fibra dietética, la cual ayuda a mantener el sistema digestivo en movimiento.



Escaneé el código QR para ver cómo hacer la merienda que hicimos en clase.

Pizza de panecillo inglés

Rinde: 6 porciones

Costo Total: \$9.40 - \$10.00

Ingredientes

- Panecillos Ingleses (English Muffins) de grano entero cortados por la mitad
- 1/4 lata de salsa de pizza (15 oz.)
- 1/4 pimiento verde
- aceitunas picadas (4 oz.)
- 1/4 lata de piña en trocitos (20 oz.)
- 1/2 taza de queso mozzarella

Instrucciones

1. Lavarse bien las manos.
2. Lavar el pimiento verde y cortar en trocitos.
3. Abrir la lata de piña y escurrir.
4. Cortar los panecillos por la mitad para usar como masa de pizza.
5. Untar 1 cucharada de salsa de pizza sobre una mitad del panecillo.
6. Añadir la piña, el pimiento verde y aceitunas por encima.
7. Colocar encima una cucharada de queso mozzarella.
8. Con la ayuda de un adulto, caliente la pizza en el microondas o comer fría.



Una forma de quitar el estrés en la cocina es hacer comidas de un solo plato, como guisos. Se pueden hacer en una sola olla, sartén o fuente para hornear. Las comidas de un solo plato también son una excelente manera de usar la comida sobrante y evitar el desperdicio de alimentos. Visite el código QR para obtener una guía de preparación de comidas.

¡El movimiento se trata de nutrir al cuerpo y al cerebro!



Incluso un video de cinco minutos que le ayude a moverse beneficia su salud en general. Siga este código QR para hacer una actividad divertida.

En su asiento

Videos en inglés.



En sus pies