

Wholesome Whole Grains

Goals:

- *Students will be able to identify foods containing whole grains*
- *Students will know the benefits of consuming a diet rich in whole grains*
- *Students will brainstorm ways to incorporate more whole grains in their diets*

Audience:

- *4th - 8th grade*

Optional Craft, Activity or Snack:

- *Any rice cooker recipe at www.nurtureyourfamily.org*

Materials:

- *Whole Grain Poster*
 - <http://www.wholegrainscouncil.org/files/WhatIsAWholeGrain.pdf>
- *Ingredient List of grain products-available at www.nurtureyourfamily.org*

Lesson:

Leader: There is a lot of confusion about whole grains. Can anyone tell me what whole grains are?

Leader: (Show poster) all grains start off as whole grains. A grain consists of 3 parts: The endosperm- this is the starchy part of the grain. It contains a few vitamins, minerals and some protein. The bran- this is the outer protective shell of the grain; it is rich in B vitamins and fiber. The germ- this is where the seed is stored for a new plant. The germ contains B vitamins, protein, minerals and healthy oils.

Leader: A food that is 100% whole grain contains all three parts: the bran, the germ and the endosperm. However, many foods such as crackers, white breads and pastas, are refined during the manufacturing process so the only part of the grain that remains after is the endosperm. Manufacturers try to add nutrients back to the processed grain by adding vitamins and minerals, these types of grains are called 'enriched' grains.

Enriched grains are missing vital nutrients from both the bran and germ. The removal of the bran in the refining process reduces the amount of B vitamins and fiber in the product. B vitamins play a vital role in development and metabolism. Fiber helps you feel full, regulates blood sugar, and helps maintain a healthy digestive tract.

The germ portion of the grain is also removed during the refining process. The germ is a source of protein, healthy fats, minerals, and protein. By consuming only enriched grains, your body misses out on many of the health benefits of whole grains.

Leader: If whole grains are so good for us, why don't we eat more of them?

Leader: Many people are used to purchasing enriched (processed) grain products, such as cereals and snack foods. Also, companies often label foods in a sneaky way, and advertise that their food 'contains' whole grains. Just because an item 'contains' whole grains, does not mean it is a 100% whole grain food. To determine if a food is a whole grain you need to read the ingredient list. If the words 'enriched' appear in the ingredient list, it is not a 100% whole grain food.

If you see the word 'wheat' but not the word 'whole' before it, the product is not 100% whole grain. The word 'whole' is a good indication that the product is a 100% whole grain. Other grains that are 100% whole grain are: buckwheat, barley, brown rice, bulgur, corn, millet, oatmeal, quinoa, wheat berries, and spelt.

Leader: Grains can be classified in a spectrum. The healthiest grains are 100% whole grain. Remember whole grains contain essential vitamins and nutrients. They are also a great source of fiber.

Next, we have foods that contain whole grains, but are not 100% whole grains. These foods are usually not as healthy as 100% whole grain foods, but still contain vital nutrients, and fiber. One example would be a granola bar.

Finally, we have enriched grains; these foods are processed, and are missing vital nutrients and fiber. We want to limit the amount of processed grains we consume. Snack foods, white breads and pastas are examples of white or enriched grains.

Leader: Let's look at a few food labels, so we know what to look for when we are at the grocery store.

For whole grain, the ingredient list contains the word 'whole' or lists grains that are 100% whole grain, such as oats, millet, wheat berries, or brown rice.

(Show example of brown rice) Notice that the only ingredient listed on the label is brown rice. 100% whole grain foods usually have a short ingredient list.

Many 100% whole grain foods contain the 100% whole grain symbol from the whole grain counsel (show picture).

There are many foods that contain whole grains but are not 100% whole grain. Here are two examples: (show picture of Gold Fish made with whole grains).

Foods advertised as 'made with whole grains' can have a blend of 100% whole grains and enriched grains. The ingredient list can give us a clue as to whether a product is mostly 100% whole grains, or if it is primarily enriched grains. The ingredient list places ingredients in order from majority to minority. For example, Gold Fish® (show picture) list whole grain wheat flour as its first ingredient; this means there is more whole grain in the product than any other ingredient.

Now let's take a look at the Wheat Thins® (show picture). It lists enriched (processed) wheat as its first ingredient. We want to choose products that list 'whole grain' in the beginning of the ingredient list, not the end. So which of these two snacks is a better source of whole grains?

Answer: The whole grain Gold Fish®.

Products that contain whole grains can have the whole grain stamp (show picture of whole grain stamp). This stamp lets you know that the food is a good source of whole grains, but is not a 100% whole grain food.

Finally, we'll take a look at the enriched product (show picture of Sara Lee® Honey Wheat Bread). It sounds healthy, doesn't it? Let's take a closer look at the ingredient list. Notice that the first word is enriched flour. There is no whole grain listed anywhere in the ingredient list! Are you surprised?

Leader: Now that we know what to look for when picking whole grain products, let's talk about how many whole grains we need to eat each day! The USDA recommends that half of our grains be whole grains. For growing children, that is at least 3-5 servings of whole grains each day. One serving is about the size of a slice of bread, or ½ cup.

*Leader: Can we think of ways to incorporate more whole grains in our diets?
For Breakfast: Eat a bowl of oatmeal or whole grain cereal
For Lunch: Choose whole wheat bread or pita
For dinner: Try a new grain such as quinoa, millet, or brown rice.*

Leader: Whole grains are an excellent source of energy for our bodies. People who eat a diet rich in whole grains are more likely to maintain a healthy weight, and may reduce their risk for cancer, heart disease, and diabetes.

Additional Resources:

<http://www.cspinet.org/nah/wwheat.html>

<http://www.wholegrainscouncil.org/>

<http://www.bellinstitute.com/ResourceDetail.aspx?ResourceId=425&PageId=81&SubPageId=65>