

# Whole Grains & SMART Goals

*Create My Plate for Teens Grades 6-8*

## MATERIALS NEEDED

The stuff: whole grain kit, grain worksheet + crossword puzzle, SMART goal worksheet, snack ingredients, experiment supplies (2 clear containers, white vinegar, one slice of whole grain and white bread, stirring utensil)

## OVERVIEW & PURPOSE

Students will learn about the importance of eating whole grains, how to identify whole grain products by looking at ingredient lists, and the importance of setting achievable fitness goals.

## Utah Health Education Standards 2: Objectives 1-3

1. Objective 1: Describe the components and benefits of proper nutrition.
2. Objective 2: Analyze how physical activity benefits overall health.
3. Objective 3: Recognize the importance of a healthy body image and develop appropriate weight management behaviors.

## SNAP-Ed Message

1. Identify different grains and how they are grown.
2. Identify what 1 ounce is to better understand how much grain intake they should have each day.
3. Identify what a whole grain is and why it is important.
4. Discuss the amount of fiber in different foods and why it is important.
5. Label reading activity to identify whole grains.

## BACKGROUND INFORMATION (not to be taught as part of the lesson)

- Most teens don't get enough whole grains, on average, they consume less than one ounce equivalent a day.
- Refined grain products tend to be high in added sugars and calories.
- Whole grains are a valuable source of fiber, B vitamins, iron and provide sustained energy.
- Whole grains support heart health, can reduce cholesterol and provide fiber which helps us feel full and supports gastrointestinal health.
- Students may be wary of carbohydrates since many popular diets avoid them.

## TEACHING THE LESSON (30 minutes)

### **Anchor (3 minutes):**

On MyPlate, the grains portion is the second largest next to fruits and vegetables. What does that tell us about how much grain we should eat? Are all grains the same? Does it matter what types of grains we eat?

- We need 6, 1 ounce servings of grains a day.
- Half of the grains we eat should be whole grains.
- There are many types of grains: corn, rice, wheat, quinoa, bulgur, buckwheat, millet, barley, spelt, oats, so on.
- Some grains are whole, some are refined and some are enriched. Use the whole grain poster provided with the youth teaching kit to identify parts of a whole grain.

**Add and apply will be combined because the experiment requires some patience (15 minutes):** *Whole grain versus white bread in vinegar experiment to compare fiber content. Use the whole grains kit to understand what makes a wheat kernel.*

Since we're talking about grains today, we're going to do an experiment to see what the difference is between whole grain bread and white bread. (If you are unable to do a live demonstration you can share this video.)

Video: <https://www.youtube.com/watch?v=VCyk8XB0218>

Fill two clear containers with white vinegar, tear up and add a slice of white bread to one and a slice of wheat bread to the other. Give the containers a stir and observe! Prep the class for meaningful observation: "Imagine that these jars of vinegar are like our stomachs, which use acid to break down our

food. Which bread do you think will take longer to break down?"

→ This will take a while (10 minutes or so), make sure the students can see what's going on in the jars and stir them periodically to make observations as a class. The fiber in the whole wheat bread will help it maintain its integrity in the vinegar whereas the white bread will disintegrate.

\*While the breads are breaking down, use the **whole grain kit** and begin going through the parts of the wheat kernel, explain what makes a product whole grain and differences between refined, enriched and whole grain.\*

Servings: need 6 grains a day, 3 of them whole (48 grams of whole grain a day)

1 slice of bread is usually a serving (unless it's very thin)

6 whole wheat crackers

½ a bagel

½ a tortilla

½ cup of pasta, rice, quinoa, oatmeal or couscous

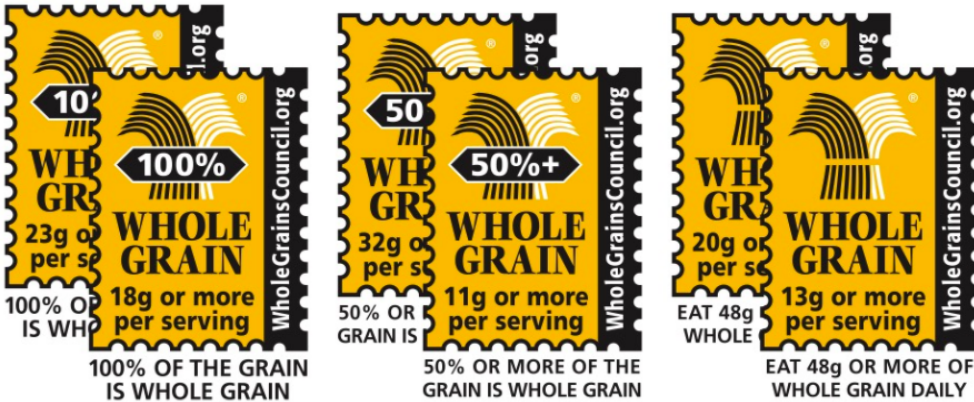
**Follow-up questions from the bread experiment:** Why do you think that the white bread dissolved faster than the wheat bread? Which one do you think will keep you feeling full? What is the white bread missing that the wheat bread has?

- White bread doesn't have as much fiber
- Whole wheat bread has all 3 pieces of the wheat kernel intact
- Whole wheat bread will keep you full longer

**Away (5-10 minutes):** Grain worksheet with ingredient lists. Optional: whole grain crossword puzzle

How can you tell what counts a whole grain and how much should you eat each day? Looking at the labels on grain products can be confusing because there are lots of claims that manufacturers make but that doesn't necessarily mean that the product is healthy or counts as a whole grain.

One way you can tell if a product contains whole grains is by looking for the yellow Whole Grain stamp. Not every whole grain product will have the stamp, so it's also important to look at the ingredients.



To practice looking for whole grain ingredients, we're going to do a quick worksheet that includes a few examples.

Hand out the worksheet; explain to look through the ingredients and mark the appropriate boxes. Remember that ingredients are listed by weight, so the higher on the list an ingredient is, the more of it the product contains. Some examples may have more than one box checked! (Give them a few minutes to complete this, they may work in pairs or small groups.)

**Follow-up:**

- Was anything surprising? (“Wheat” bread wasn’t actually whole wheat and was pretty comparable to the white, enriched bread)
- Did these products have anything in common? (All of them contain sugar, only 1 product wasn’t enriched)
- Which ones do you think count as a whole grain? (1st and 4th product)

**PHYSICAL ACTIVITY: SMART Goals (15-20 minutes)**

*Warm up game (3 minutes): Popcorn game*

Popcorn game: this game is pretty simple but it gets them moving around, working together and getting creative. The game is similar to musical chairs, the kids mill around for 10-20 seconds (you could play music during this) and when the music stops or time is called, you call out a number which indicates how many people need to be in each group and an object that they need to make with their bodies (similar to charades; they can be standing, moving, acting out a scene to represent it, or laying down on the ground, whatever works). The goal is to form the groups and make their objects as quickly as possible! You could make it competitive and eliminate the last group to finish or keep it fun by seeing what the kids come up with. You’ll want to throw some simple ones in there too.

Examples: 4 people, make a stalk of wheat; 3 people, make your best representation of MyPlate; 2 people, make a bagel; 1 person, popcorn; 3 people, make a loaf of bread; 2 people, make a tortilla; 4 people, make a wheat field;

*Alternative popcorn game:*

Demonstrate the 4 grains and have the students do them along with you so they all know what to do. You'll call out one of these at a time (could make it competitive where the last one to do it is out but you don't have to), in between calling them the kids should be milling around the room, make sure to rotate through each grain, you could speed it up as you go as well. Do this for a few minutes to get them moving.

Kernel: make yourself into a kernel (crouch on the ground, hug your knees, make yourself round)

Quinoa: get a partner and make a circle with your arms, turn in a circle slowly

Wheat: stand tall and wave your arms above your head like wheat in a field

Popcorn: jump up and down like popcorn in a hot pan

***Anchor (2 minutes):***

Who here has a goal that they want to accomplish in their life? Does anyone want to share? It can be a big goal or small goal.

Why are goals important?

- Help give us direction
- Keep us on track

Setting goals is important for lots of areas of our lives, like getting enough whole grains and getting plenty of exercise.

***Add (2 minutes):***

Maybe it seems overwhelming to start exercising or you're not sure how. Maybe an hour a day feels like it's too much or you don't have time. Even if you're already getting an hour of physical activity each day, maybe you want to improve your skills in a sport or find new activities to try. Raise your hand if you've ever set a goal and then didn't quite reach it? Most people struggle setting realistic goals.

**Apply and Away (10 minutes):** SMART goal worksheet, challenge to start working towards their SMART goal

(May want to write this on the board and define words)

One way to set goals that are achievable is called SMART goals. SMART stands for:

Specific: clearly identified or precise, an exact goal is easier to achieve than a vague goal (the difference between “I want to be a fast runner” and “I will run a 7 minute mile”; what is “fast”?)

Measurable: It has a numeric value, this will help you know how close you are to your goal (Right now, I run an 8-minute mile. I need to shave 1 minute off my mile time to reach my goal.)

Actionable: There are clear steps you can take to achieve your goal, you may need to look up how to do this but even that is a step towards your goal!

Relevant: A goal that is important to you is more likely one that you will work towards.

Time-bound: Having a deadline (or due date) for your goal is important because it will help you stay on track. A deadline will also determine if it’s realistic to achieve your goal in that timeframe.

Using the SMART technique, we have a better chance of achieving our goals because it is broken down in a way that applies to real life and gives us a plan on how to achieve it.

Distribute the SMART goal worksheet and give the students some time to work on them.

End the lesson with challenging them to think of how they will start working towards their goal in the coming week. Encourage them to follow-up with their friends about their goals.

**HEALTHY SNACK: 15 minutes**

## SOURCES

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