



## Grains 3rd Grade



### UTAH CORE STANDARDS

3.N.1 Demonstrate healthy behaviors to maintain or improve personal nutrition, fitness and oral health including encouraging healthy food behavior and physical activity.

PE 3.3.8 Compare the balance of good nutrition and physical activity.

### MATERIALS NEEDED

- Captain CREATE Puppet or Captain CREATE poster (in Captain CREATE kit)
- MyPlate Plate, MyPlate Poster or MyPlate Chart
- Grains Sample Kit – jars of grains, wheat stalk and photos of grains in fields and food models: bowl of cereal, bowl of oatmeal, spaghetti, bagel, white and wheat bread slices, pretzel, hamburger bun, pancakes (part of Captain CREATE kit- in separate flat 12 x 12” plastic box)
- Whole Grains Detachable Parts Poster (in Captain CREATE kit)
- “Make a Whole Grain Game” cards- cut out enough so each child has one
- Toy Garbage Truck (in Captain CREATE kit)
- iPad mini with dance music downloaded on it, iPad mini speaker
- Taste Experience Ingredients and Supplies (listed in Taste Experience section)
- “At Home” Recipes Handout – give to each student or teacher to put in backpack to take home

**OBJECTIVE 1:** Students will identify a variety of grains.

**OBJECTIVE 2:** Students will be able to tell the difference between a whole grain and a refined grain. They will learn importance of half the grains they eat being whole grains.

**OBJECTIVE 3:** Students will taste and compare foods that are refined grains and whole grains.

### MYPLATE MESSAGE

*Sample instructor message in blue*

Hi, my name is \_\_\_\_\_ with Utah State University CREATE Better Health. This is Captain CREATE. Hold up puppet or poster. Today we are going to talk about grains. Hide Captain CREATE poster or puppet behind your back. Can anyone tell me which

color on the MyPlate image represents the food group grains? Allow children to give guesses. Show Captain CREATE puppet/poster, MyPlate plate, poster or chart. The grains group is orange and can be seen here on MyPlate.

We are going to learn about different types of grains as well as the difference between a whole grain and a refined grain. We will do some fun activities, learn about why grains are healthy, and will taste test some grains! Let's get started. Grains can be divided into two main categories, whole grains and refined grains. Show students wheat stalks from the Grains kit. You may want to pass some around. If the wheat stalks in your kit get broken or lost and you need more contact [darlene.christensen@usu.edu](mailto:darlene.christensen@usu.edu) and she will send more for your kit. Let's pretend this little grain of wheat is blown up to be this big (show the Whole Grains Detachable Parts Poster). Grain is made up of 3 parts – the bran, the germ and the endosperm. A whole grain has all three parts and is full of vitamins and minerals and fiber. Show the garbage truck. Fiber removes food waste from our bodies the way a garbage truck takes away all the trash from our homes. We want to eat whole grains so the “trash” doesn't pile up in our bodies.

Some grains have the bran and the germ removed (pull the bran and germ from the poster). These are refined grains. The process is often completed to make the texture finer and lengthen the shelf life of the food. Some grains called enriched grains have vitamins and minerals added back to the endosperm making the grain “enriched”. Even though some nutrients are added, the enriched grain is never as good for you as the whole grain. Fiber cannot be added back in. So, you see we need to eat more whole grains every day. Whole grains are so much more nutritious than refined grains, so remember to make at least half of your grains whole grains.

We just looked at wheat and learned that it is a WHOLE grain, meaning that it has three parts. Did you know there are many other whole grains? Give out the different grains samples one at a time, to the class, to pass around as you talk. I'll show you the first jar of grains and the picture of what it looks like growing in a field before it is harvested to what you see in the jar. Can you guess what foods can be made from this grain? Hold up one grain jar from Captain CREATE kit and let students answer. Continue to go through the rest of the grain sample kit to show the class the different whole grains and the pictures of them growing in a field. Discuss and have them answer, what foods could be made from each grain that you show them.

## ON THE MOVE

*Sample text for instructor is in blue font*

All right, class, let's play a game now. We need the energy we get from grains to play this game. Eating nutritious foods and being physically active will help our bodies become strong and healthy. Hand out a paper to each student with either the word endosperm, germ, or bran written on it. Make sure you have more endosperm papers than germ or bran.

Remember how we talked about how grains are really great at giving our bodies lots and lots of energy? Well, I've handed each of you a card with either the word,

endosperm, germ or bran on it. Do these words sound familiar? Does anyone remember what three parts a grain needs in order to be a whole grain? Allow children to give answers. Show Whole Grains Detachable Parts Poster for reference. I'm going to explain the game but don't start playing yet. When I start playing music you will move around the room while holding up your card with the word written on it. Look around to try to find two other people with different things written on their paper. Each group should have a card with endosperm written on it, a card with germ written on it and germ written on it. Keep moving and looking for your group. When the music stops, you need to make sure that you have "made a whole grain" by forming a group with one endosperm, one bran, and one germ.

Show the Whole Grains Detachable Parts Poster again to remind students which parts are needed. Place it somewhere they can see it while the game is played. **Once you have a whole grain start doing jumping jacks to let me know you are complete. Ready to play?** Start playing music. Once several groups are complete, stop the music. Go around the room and have the students tell you if their group makes up a whole grain (have all three parts). If a team of three has a whole grain, have them name one food that is a whole grain. Example: whole grain bread, oatmeal, popcorn. Find a group that is missing at least one of the three parts. Ask the class what this group is if it isn't a whole grain? If one student is alone with the endosperm only, they are a refined grain. **We are going to play again- you can't be with the same people you were with last time. Let's see how many whole grains we can make this time. Ready, Set Go!** Play music. Repeat the game as long as time permits.

## **TASTE EXPERIENCE**

*Before giving a snack make sure you ALWAYS check for any allergies. If teaching in a school- make sure to get a list of food allergies in the school, you DO NOT need a list of students with allergies. If any child in the school has an allergy to a certain food- do not use it as part of the snack. Instruct students to wash hands before making their snack. Teachers or NEA wash and/or prep the food beforehand.*

### **Whole Grain Taste Test**

**We are going to do some taste testing now.** Pass out 1 white cracker & 1 whole grain/wheat cracker to each student. **Before you eat your crackers look at them. How are they different?** Allow students to give a few answers. **Now, let's taste them. What was different?** Allow students to give a few answers. **Now, which cracker do you think is healthier?** Allow students to give a few answers. **The whole grain cracker is a healthier choice than the white cracker.**

Show the children goldfish crackers. **Have you ever tried these crackers? Do you like them?** If anyone hasn't had goldfish ask them if they know what they taste like & how? (Have they seen an ad, do their friends eat them, are they popular, etc?)

Then give each student 2 small baggies of goldfish, one bag with whole grain goldfish crackers and one with regular goldfish crackers. **Eat one cracker from each of your**

bags. Can you tell the difference between them these two goldfish? They look and taste almost the same, right? Actually, one is a whole grain cracker and one is a refined grain cracker. Can you tell which baggie of goldfish is the whole grain and which is the refined grain goldfish? Students answer. See how easy it can be to choose a whole grain over a refined grain? MyPlate recommends a certain amount of the grains we eat each day should be from whole grains. Does anyone remember how much of our grains should be whole grains? Allow students to guess. HALF of all of our grains that we eat should be whole grains. While you enjoy your snack let's see if we can come up with some more whole grain foods.

Ingredients/Supplies

- White crackers
- Whole grain/wheat crackers
- Whole grain gold fish (make sure to mark in some way to know difference)
- Regular gold fish
- Sandwich bags