
Waking up with Whole Grains:

“The Power of 3”



Melissa Cudia, Arlene Castillo, Naomi
Benderly-Kremen, Annie Lu and Rahyana
Shahsamand



Target Audience

- **Preschool children, aged 4-5**
 - Children in this age group are able to :
 - Count
 - Sort objects by color, size, and shape
 - Have increased memory
 - Can understand cause and effect.
 - Cognitive-interactionist approaches such as **symbolic play, beginnings of cause and effect, sorting, and categorizing** should be emphasized when presenting concepts.
 - Important to stimulate the **five senses** when presenting concepts.
-

Location

- Rutgers University Livingston Day Care Center
 - Sunbeam Group - 24 children ages 3-5 years
 - Day of lesson → 19 children

April 15-19, 2019

Monday	Tuesday	Wednesday	Thursday	Friday
Diced Pears Cheerios	Applesauce Bagels	Bananas Life Cereal	Clementines Cheese Toast	Fruit Cocktail Rice Krispies Cereal
Ground Turkey with Brown Rice Romaine Lettuce Diced Peaches	Cheese Quiche Green Beans Oranges WW Crackers	Grilled Chicken Mashed Potatoes with Basil Carrots Fruit Cocktail Rye Bread	Cheese Pizza Peas Sliced Grapes [WW English Muffin]	Baked Ziti Steamed Broccoli Mandarin Oranges WW Bread
Graham Crackers Milk	Pears Milk	Apples Milk	Cantaloupe Milk	Hard-Cooked Eggs Carrot Sticks

Lesson Goal

- Teach children about whole grains versus refined grains, and the importance of whole grains as part of a balanced diet.
 - To be able to look for “whole” grain on food products.
 - To learn to choose whole grains over refined grains.





Objectives

- **Cognitive:** by the end of the lesson, 50% or more of the children will know that whole grains give energy to run faster, jump higher, and build strong muscles.
 - **Affective:** by the end of the lesson, 50% or more of the children will feel positive about eating whole grains.
 - **Behavioral:** by the end of the lesson, 50% or more of the children will model a food plate with a whole grain.
-



Ice Breaker and Pre-Assessment

- Introduce ourselves
 - What is Nutrition?
 - What do dietitians do?
 - Does anyone know what grains are and where we find them?
 - What's your name and what did you have for breakfast?
-

The Tortoise and the Hare



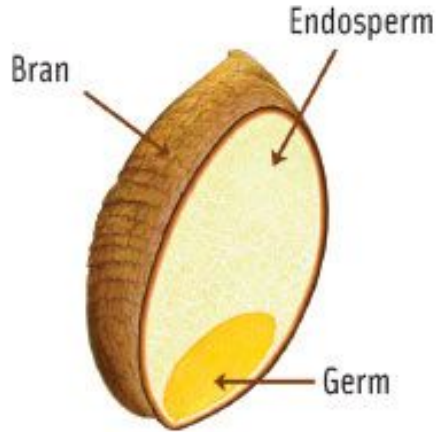
Activity 1: “The Tortoise and the Hare”

- Read the story
 - The Hare ate refined grains, white bread, where as, the Tortoise ate whole grains, whole grain bread.
- Asked them:
 - Why do you think the Tortoise won the race?
 - How did white bread make the Hare feel?
 - How did whole grain bread make the Tortoise feel?
 - Who is going to eat white bread?
 - Who is going to eat whole grain bread?



Activity 2: “Whole Grain vs Refined Grain: The Power of 3”

What do they know...



Grain Anatomy

- Does anyone know where grains come from?
- Does anyone know what kinds of foods are made from grains?
- There are 2 types of grains: Which one of these has all of the good things to help us grow strong?
 - Explain the part of whole grains and why they are better for us!
 - Show them clues to look for when buying whole grain products...



Activity 3: “Sometimes Grains vs Everyday Grains”

Have them recognize food products made with whole grains and those with refined grains...

- Happy and sad face paddles
- Bags of brown rice, white rice, oatmeal, whole wheat pasta, white pasta, whole wheat bread, white bread
- Pictures of foods







Activity 4: “Matching: Is it a whole grain or a refined grain?”

Test what they have learned by a fun matching game...

- Velcro board with “Whole Grains” on one side and “Refined Grains” on the other side
- Cut out pictures of whole grain and refined grain foods with velcro

Wrap Up Activity and Post-Assessment

What whole grain would you like to try for breakfast?

- Have each child draw pictures of a breakfast they would like to eat made with whole grains

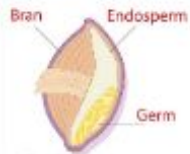


Handouts

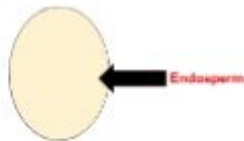
Grains

There are two subgroups of grain – Whole Grains and Refined Grains. What are they?

Whole Grains: Whole grains contain the whole kernel: the bran, the germ, and the endosperm. Examples of whole grains are: oatmeal, brown rice, and whole-wheat flour.



Refined grains: Refined grains undergo the process of milling, where the bran and germ layers get taken out to create a finer texture. Examples of refined grains are: white flour, white bread, and white rice.



The Dietary Guidelines for Americans recommends at least 2 to 2 ½ servings of whole grains for children between 4 to 8 years old.

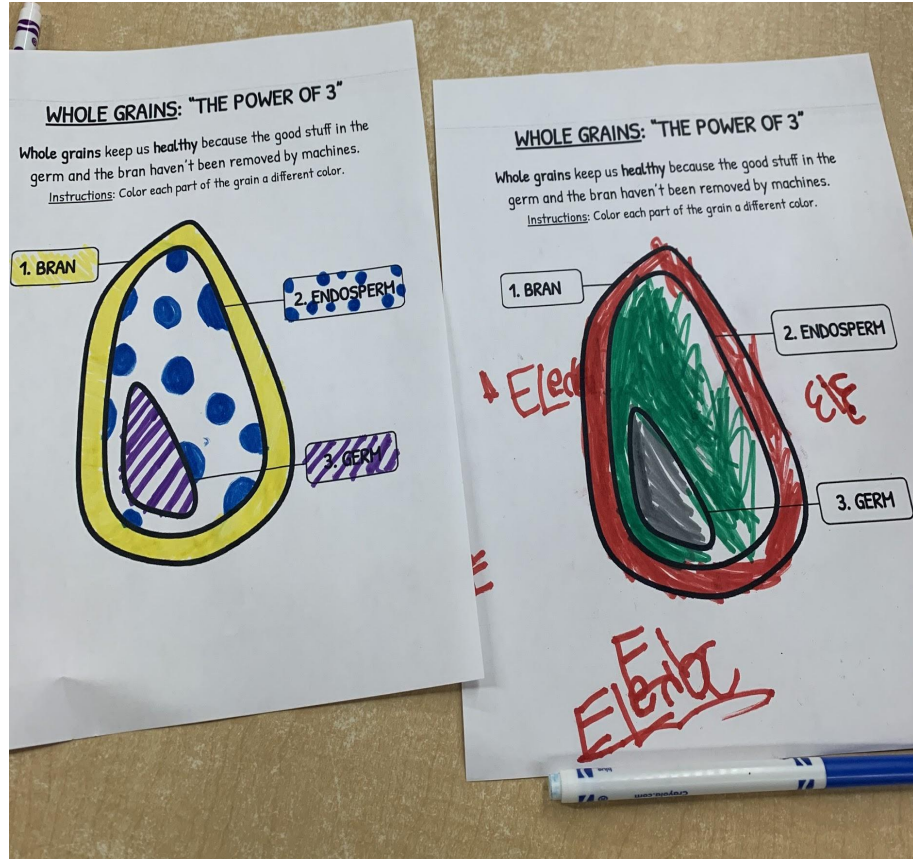
To add more whole grains to meals, try a whole grain cereal such as oatmeal for breakfast, air-popped popcorn as a snack, or brown rice with stir fry for dinner.



When grocery shopping, look for the word(s) "whole" or "whole grain" on packages, such as "100% whole wheat bread" or "whole grain pasta". You can also look for the Whole Grain stamp on packages to be sure it contains whole grains.

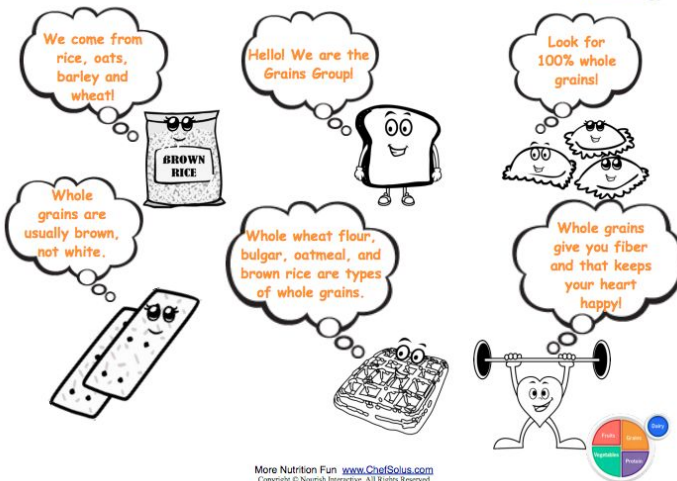


Handouts



Handouts

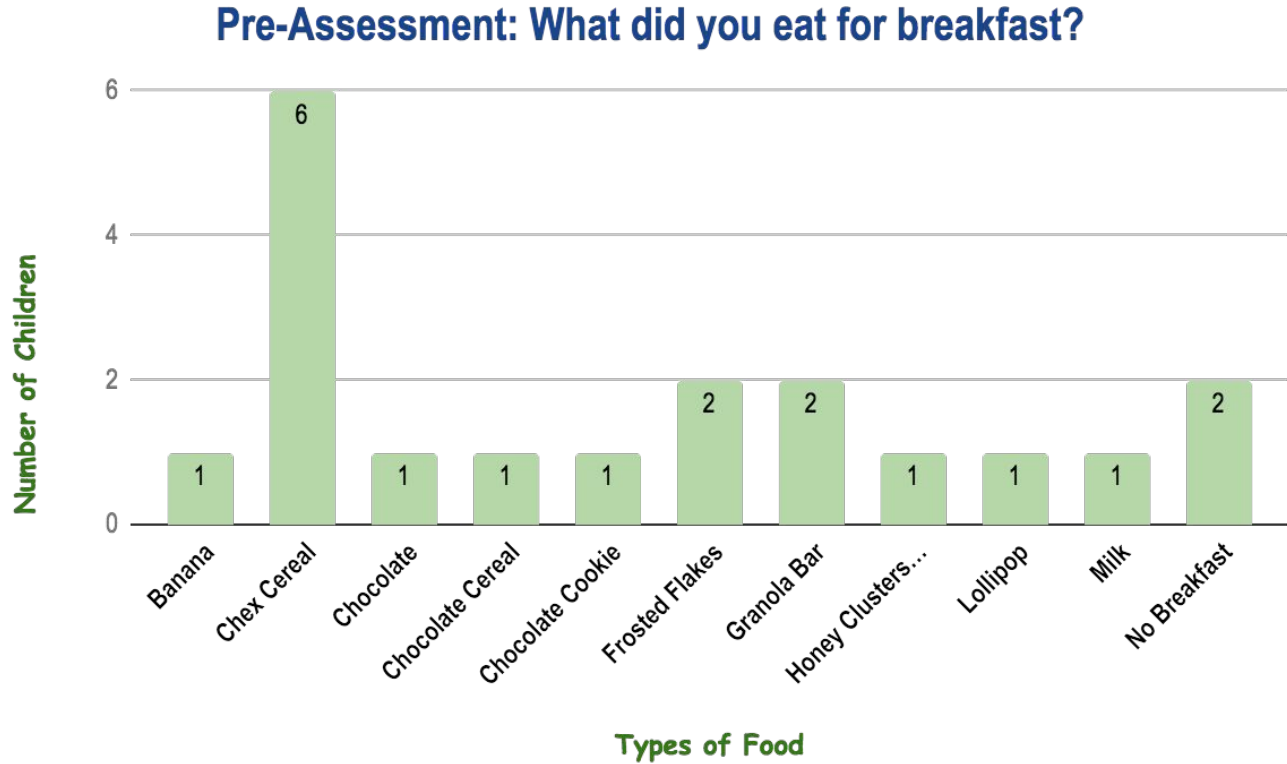
Chef Solus Energy Pals - Meet the Grains Group!



Chef Solus Energy Pals - Meet the Grains Group!

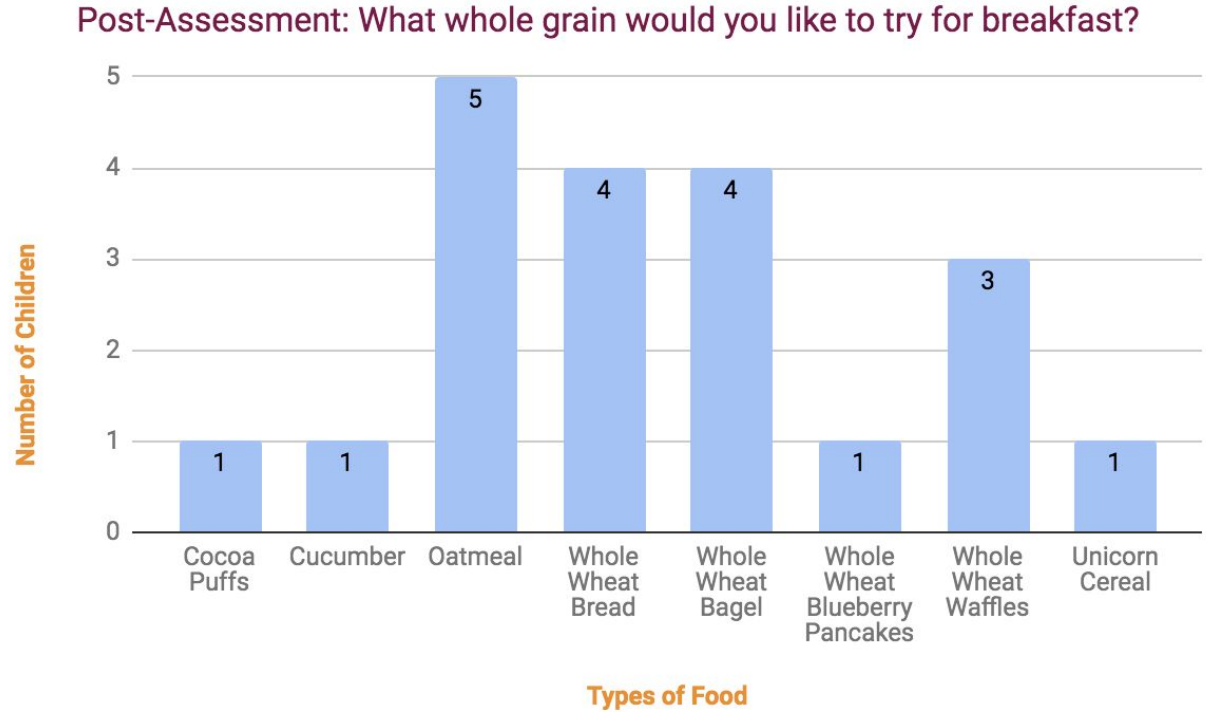


Results: Pre-Assessment



Results: Post-Assessment

- 83% of children understood that whole grains give energy to run faster, jump higher, and build strong muscles.





What went well?

- The kids were really engaged and enjoyed the book, “The Tortoise and the Hare”, and were disappointed when it ended so quickly!
 - Kids really enjoyed the “Sometimes Grain vs Everyday Grain” activity.
 - Kids really loved the activity that involved coloring in whole grain handout!
-



What we would do differently?

- Add more detail to “The Tortoise and the Hare” story and made it longer
 - Have the lesson later in the day or done more to their regular schedule
 - Simplified the lesson
 - Held both of the groups in a more neutral environment
-



Lesson Learned

- The kids were very knowledgeable of sometimes and everyday foods but were still attracted to sugary alternatives
 - Kids are easily influenced by each other
 - Made verbal evaluations difficult
 - Kids are very easily distracted
 - People were constantly coming in and out of the room
 - A lot of noise
 - Not everything goes as planned!
 - Prepared for 3 groups but ended up with 2 large groups
 - Some children came in late and missed more than half of the lesson
 - Some activities took longer than expected due to distractions
-





References

Fitzgerald, Nurgul. "Marketing Dilemma." Nutrition Communication. Cook/Douglass Lecture Hall New Brunswick, NJ 25 April 2019

"Nutrients and Health Benefits." *Choose MyPlate*, United States Department of Agriculture, 12 June 2015, www.choosemyplate.gov/grains-nutrients-health.

Lu, Annie, and Rahyana Shahsamand. "The Tortoise and the Hare." *My Storybook*, 17 Apr. 2019, www.mystorybook.com/books/732420.

Worobey, Harriet. "Preschoolers." Nutrition Communication. Cook/Douglass Lecture Hall New Brunswick, NJ 28 February 2019
