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Lesson Plan: Wake up with Whole Grains: “The Power of 3”

Target Audience: Preschool children ages 4-5 years

Summary of audience characteristics; justification for the nutrition education needs and the teaching strategies):

Preschoolers need whole grains not only to provide energy for their high activity levels, but also for the B vitamins (thiamin, riboflavin, and niacin) to support growth and learning, magnesium to build strong bones, and selenium to support the immune system (Nutrients and Health Benefits Choose MyPlate, 2015). Children in this age group are able to count, sort objects by color, size, and shape, have increased memory, and can understand cause and effect (Worobey ‘19). Cognitive-interactionist approaches such as symbolic play, beginnings of cause and effect, sorting, and categorizing should be emphasized when presenting concepts (Worobey ‘19). Additionally, it is important to stimulate the five senses when presenting concepts (Worobey ‘19). Therefore, telling stories, doing activities that incorporate movement, and sorting objects are effective teaching strategies. (Worobey ‘19).

Eating habits begin to develop during early childhood, so it is important that children learn to make healthy food choices. Commercials and advertisements make it very easy for children to gravitate towards high sugar and refined breakfast cereals, cookies, donuts, etc. (Fitzgerald ‘19). With the increase in use of smartphones, tablets and gaming consoles by children, they are being exposed even more to such advertisements (Fitzgerald ‘19). In addition to that, marketing strategists place these advertisements all around us, where we live, where children go to school and play, on public buses, etc. (Fitzgerald ‘19). In this lesson, our goal is to make children aware of the two types of grains, how to differentiate between the two and to teach them whole grains are the best option. By showing them the various whole grain products available, their benefits and that they can be just as tasty as products made with refined grains, it will make it more likely that children will choose whole grains over refined grains.

Lesson Definition and Goal: Teach children about whole grains vs refined grains and the importance of whole grains as part of a balanced diet.

Objectives:

Cognitive (knowing/understanding): 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 by running in place, jumping, or flexing a muscle.

Affective (values, beliefs, attitudes that can affect change): By the end of the lesson, 50% or more of the children will feel positive about eating whole grains.

Behavioral (skills and behaviors): By the end of the lesson, 50% or more of the children will model a food plate with at least one whole grain.

Lesson Time: 40 minutes – three 10-15 minute lessons.

Materials:

- 24- Smiley and frowny faces on popsicle sticks
- 24- “Grains” take home handout
- 3 copies of the visual aids
- 3 of each variety- clear bags with whole grains (brown rice, whole wheat bread, corn, oatmeal, whole wheat pasta) and refined grains (white bread, white rice, white pasta)
- Poster board (Whole Grains vs Refined Grains) with velcro
- Pictures of whole grains and refined grains laminated with velcro on backs
- 3- “The Tortoise and the Hare” book
- 24- “Whole Grains: The Power of 3” Coloring Handout
- 24- “Meet the Grains Group” Handout
- 24- Paper plates

Procedures and Activities

Preparation: List what needs to be done in preparation for the lesson such as printing certain handouts, setting up tables/displays in a particular way, etc.

- Complete Lesson Plan
- Print 24 each of smiley and frowny faces and assemble on popsicle sticks.
- Print and laminate 24+ pictures of grain products for matching game and attach velcro to the backs
- Print 24 of each of the take home handouts
- Purchase paper plates, popsicle sticks, poster board, velcro tabs
- Write the story line and download “The Tortoise and the Hare” story book then print
- Write on poster “Whole Grains vs Refined Grains” and attach velcro tabs

Lesson Activities:

- 1) Introduce ourselves, talk about dietitians and what they do.

“Hi Sunbeams, I am _____ and we are dietetics students studying to become Dietitians, we go to school here at Rutgers like all of you! Today we are going to do some fun activities learning about some of your favorite foods! Does anyone know what a dietitian does? Well Dietitians are experts on food and healthy eating. They know about what foods to eat to keep you healthy and your bodies strong and also about what foods to stay away from that may not be good for our bodies. Some dietitians work in hospitals and help sick patients choose the right foods to help them get better. It’s very important that we eat our fruits, vegetables and whole grains so that we can give our brain, heart, bones, muscles and the rest our body the nutrients it needs to be strong, healthy and to grow. Does anyone have any questions?”

- 2) Icebreaker - say their name, what they had for breakfast

“Ok, so let's go around, can everyone say their name and tell us what you had for breakfast this morning.”

(Write down what each child says)

- 3) Introduction to grains -- Where do grains come from? The components of a grain, refined vs whole grain, and the effects of eating a refined grain. Give examples of both refined and whole grains. Activity: raising a smiley or frowny face towards foods of certain grain types.

“Does anyone know what a grain is?... A grain is a seed that grows on plants like these (show picture) and we can grind them into flour to make bread, pizza or cakes or they can be whole like this (show picture) and we can make rice, oatmeal, popcorn and a lot more things. But there are 2 kinds of grains 1. Whole grains (show picture) and 2. Refined Grains (show picture). Whole grains are like a finished puzzle and have all of the parts that are good for you (refer to picture) BUT refined grains are missing 2 of the puzzle pieces so it doesn’t have all of the parts to help our brain, heart, muscle, bones and the rest of our body grow and become strong. Whole grains help us run faster, jump higher, and build strong muscles (do action as you say them). Let’s go around and can everyone show me one thing that whole grains do for our body?” (write down what each child does)

-Bring a bag of white rice and brown rice. A piece of white bread and whole wheat bread. A bag of white pasta and whole wheat pasta. Bag of oatmeal. Bag of corn. Pass around for the kids to look at.

-Hand out Smiley/Frowny faces

“Lets play a fun game, we are going to show you pictures of foods made from grains, if you think it’s made from whole grains raise the smiley face. If you think it’s made from a refined grain raise the sad face.”

Pictures of whole grain cereals, sugary kids cereals, breads, oatmeal, whole wheat tortillas, white tortillas, brown rice, white rice, various whole and refined grain snacks, etc

4) Grain storyline (The Tortoise and the Hare)

“Who knows the story of the Tortoise and the Hare? ... Listen up because we’re going to tell you the story of how the Tortoise won the race!” (Read Story)

Ask them, “Raise your hand if you think whole grains make you run faster”

“Raise your hand if you think whole grains make you jump higher”

“Raise your hand if you think whole grains build strong muscles”

5) Wrap up -- Matching game with whole grain and refined grain products, hand each child a picture, they take turns taping that picture under the correct category. Go over with them the different types of healthy grains. Then ask children what new healthy grain they want to try for breakfast and to draw it on a plate.

“Lets play a fun matching game, each of you are going to get a picture of a food made from grains and you have to guess if it’s made from whole grains or refined grains. Everyone can take turns coming up and sticking it on to whichever side you think it belongs.”

Ask everyone to go back to their tables. Hand out plates.

“Now that you all have learned about how good whole grains are in keeping you healthy and strong. Can anyone name any whole grains they learned about today?” (show them pictures of whole grains)

“Now everyone can draw a picture of a whole grain food you want to try?”

After go around and ask them what they drew (make note of what they say/draw)

Take Home Material:

For Parents: “Grains” handout on whole grains vs. refined grains will summarize the lesson and provide recommended servings, tips on adding more whole grains to meals, and what words to look for when grocery shopping, “whole wheat” or “whole grain” etc.

<https://docs.google.com/document/d/1jXH5gh6Y3RAjDjrlTqkCJ9V7cJcYBcUkvrGaWWfENw/edit>

For Children: Coloring handout with pictures of whole grain characters and speech bubbles saying why whole grains are beneficial and other facts. This will be a way to reinforce what they learned in the lesson.

<http://www.nourishinteractive.com/nutrition-education-printables/100-grains-group-kids-food-groups-information-printable-nutrition-fact-sheet-description>

Modifications:

“Whole Grains: The Power of 3” coloring sheet

<https://docs.google.com/document/d/1RV9Etldb54KyZDGemO-K-OoHxuvp1fgWucj341VK8gA/edit>

Or we play a game where if we show you a picture or say the name of a whole grain, you do 3 jumping jacks but you stand still if it is a refined grain.

Evaluation:

- Pre-assessment: We will ask what they ate for breakfast as part of ice breaker.
 - Tally what everyone had for breakfast
 - If they did not eat a grain for breakfast, ask them if they know what a grain is (if not explain) and what kind of grain they eat the most of?
- Post-evaluation: will ask which new healthy grain they want to try?
 - Ask children to draw what new healthy grain they want to try for breakfast
 - Take note of what grain they choose to draw.

References:

1. Fitzgerald, Nurgul. "Marketing Dilemma." Nutrition Communication. Cook/Douglass Lecture Hall New Brunswick, NJ 25 April 2019
2. "Nutrients and Health Benefits." *Choose MyPlate*, United States Department of Agriculture, 12 June 2015, www.choosemyplate.gov/grains-nutrients-health.
3. Lu, Annie, and Rahyana Shamsamand. "The Tortoise and the Hare." *My Storybook*, 17 Apr. 2019, www.mystorybook.com/books/732420.
4. Worobey, Harriet. "Preschoolers." Nutrition Communication. Cook/Douglass Lecture Hall New Brunswick, NJ 28 February 2019