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Increasing Nutrition Education in Elementary Schools

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Running Head: INCREASING NUTRITION EDUCATION

Increasing Nutrition Education in Elementary Schools

Guadalupe Zamora Madrigal

A Capstone project for the Bachelors of Arts in Human Development Family Studies

Increasing Nutrition Education In Elementary Schools

Introduction

There is a lack of nutrition education in most elementary school curriculums. The importance of healthy nutrition is essential because most parents supply food for their children. Children don't often get to control the foods they intake because parents choose their food choices for them. Most of the time parents don't make the healthiest food choices and it affects a child's well being. In order to address nutrition education, I have created a 3 day lesson plan , which covers the importance of a healthy nutrition and delivered to a group of fourth graders at Boronda Meadows Elementary School, in Salinas, CA.

Needs Statement

There is a lack of nutrition education in many schools. Children benefit from learning about balanced diet and healthy food choices at a young age. Schools are the preferred setting for teaching children about healthy nutrition because most children spend the greatest part of their time in school (Silveira, Taddei, 2011). It is beneficial to teach children about healthy nutrition because they can adhere to poor eating habits, which puts them at risk of chronic diseases , poor nutrition can affect their academic performance (cognitive development), and it will also help children establish a foundation for healthy eating habits at a young age.

It is important to educate children about nutrition because they can create unhealthy eating habits if they are not educated at a young age. Children may get in the habit of overeating or skipping meals. Research shows that mostly male children have unhealthy eating habits, while most females have healthier eating habits, but have the tendency to skip meals (De Oliveira Figueiredo, Viljakainen, et al. 2019). It is essential to educate children that they should not be

skipping meals and that every meal should contain nutritional value because if children don't have proper nutrition it can affect their well being. If children go on with their poor eating habits it can promptly affect their health negatively . Research indicates that children with poor eating habits are putting themselves at risk of getting chronic diseases, like diabetes, cardiovascular disease, and cancer (Banfield, Liu, 2016). Children can also suffer from malnutrition if they are undereating or from obesity if they overeat. Therefore nutrition education is essential in schools so children can learn and know how to properly nourish themselves.

Nutrition takes a big part on how children do academically and it impacts their cognitive development. Research has found that poor eating habits can contribute to behavioral problems in school, children may lack motivation, children can disengage from learning, and it can cause absenteeism (Food and Nutrition Board, 2013). This is important to know because children can get lower scores on tests and show no motivation to keep learning. Getting the proper nutrition will allow them to feel energized and focused throughout the day, making children eager to learn.

Most children don't have control with the foods they intake because it is their caregivers that provide them with foods and eating patterns are usually developed by children's surroundings. Research has shown that children who are frequently exposed to unhealthy foods usually cause children to consume a high amount of high- fat foods, rather than more nutritious options, such as fruit and vegetables (Black & Hurley, 2007). In some cases, some parents have to opt to provide their children with cheaper, more processed foods because they can't afford nutritious foods due to the fact they are more expensive. Children can also start to educate their parents on the importance of eating healthy and if they are in need or suffer from food insecurity they can search for programs to help them get their hand on nutritive foods. Research states that, "Nutrition education in elementary schools can provide children with the information and skills

to develop healthy food choices and dietary behaviors,”(Perera, Frei, et al. 2015). Nutrition education can help children choose healthier food alternatives and help them modify their diets to make sure they are eating proper portions. Healthy eating habits are more likely to stay with them throughout their lifetime if children learn about balanced nutrition at their age. Healthy eating habits can help children implement a healthy lifestyle and help them remain healthy as they age.

It is essential for children to have proper nutrition because it will help them reduce poor eating habits, which can cause chronic diseases, do better academically, and will allow them to establish healthy eating habits or healthy lifestyles that will benefit them in the long run. To implement this learning I have created a three-day interactive lesson on nutrition for the fourth graders at Boronda Meadows, Salinas, California.

Theory

In his theory of cognitive development, Piaget believed that, as kids interact with the world around them, they add new knowledge and build upon existing knowledge. He also addresses how children adapt previously held ideas to accommodate new information (Cherry, 2021). My hope from this project is to build on a child’s knowledge so they can educate themselves and family members about the importance of nutrition, so they can start making healthier food choices. The children will be gaining knowledge about healthy nutrition and its benefits.

This content also helps children’s concrete operational thought, which helps children think more abstractly and hypothetically (Cherry,2021). According to Lifespan Development, “The concrete operational child is able to make use of logical principles in solving problems involving the physical world.” I can implement this in my project because they can use the

knowledge they will be learning from my presentation, so they essentially help themselves on later on in the future.

Consideration of Diversity

My project will be conducted in Boronda Meadows Elementary school with fourth graders. Some participants may have culturally-based views about nutrition that may not be included in my presentation. According to the School Accountability Report Card (SARC; 2018-19), Boronda Meadows is, 1% African American, .1% American Indian, .1% Asian, .8% Filipino, 94%, Hispanic and Latino, 1.5% White, 88.2% socially disadvantaged, 56.6% English, 6.1% , and 26.8% are Homeless. For example, my content is based on what the standard nutrition should look like for most families. Some of my participants may necessarily agree with what may be presented based on their cultural beliefs. Participants may not all agree because they all have different eating habits and portions they are accustomed to in their culture.

Since I am delivering my content in English, participants will need to be proficient in English. Individuals who are not proficient may be inadvertently excluded from participating. Another issue may be that my content is tailored to this age group and would need specific changes for older or younger children.

Learning Outcomes

I planned to provide 30-40 minute lessons to fourth graders at Boronda Meadows Elementary School.

By the end of my project:

1. Identify at least one item that goes in each food group to build a healthy plate.

2. Be able to analyze food labels and learn how to distinguish the difference between health/unhealthy fats and sugars.
3. Be able to describe one of the benefits of a balanced diet.

Method

Due to COVID-19 I wasn't able to execute my project, but these would've been some activities I would've done with about 20 participants.

Day 1:

First, I planned to introduce myself. Then I would've opened up my powerpoint presentation named, "Healthy Nutrition", and shared some fun facts about nutrition to the participants. See Appendix A. Then I would proceed to teach them about MyPlate and what it is. My plate is essentially a diagram of a plate with five food groups and it represents what a healthy plate should look like. In the last 15 minutes we would move on to the final activity for the day, which was for the children to build a healthy plate of their own. They would use a google template that I shared with them to build their healthy plate. See Appendix B. The document would have a diagram of a plate with healthy and unhealthy food options. From there the children would've used what I taught them about MyPlate to assemble their plate. Once they were done assembling their plate, I would ask them who wanted to share their plate with their classmates. Then I would've checked on their plates and tell them whether they did a good job assembling their healthy plate or whether they still needed to swap some foods to make their plate healthier.

Day 2

On the second day, I would've proceeded with my powerpoint presentation. See Appendix A. From there I would've done a recap of what was previously learned, which was about nutrition education. Right after, I would've taught the participants how to analyze a macaroni and cheese label. See Appendix C. Once I was done teaching the children about how to read labels, I would have them participate in a Kahoot,, which is an online quizzing technique. See Appendix D. I asked 8 questions, a couple of multiple choice questions and true and false questions. Those questions were based on prior lessons about MyPlate and questions related to the food labels they would've learned this day.

Day 3

On the third and final day, I continued with my powerpoint presentation. See Appendix A. From there once again, we would do a recap of the last two lessons. For this day I would've had the children brainstorm about what they thought some benefits of nutrition were. From there I would've shown, https://youtu.be/fagLa_46HkY, which is a 23 minute video that goes into talking about health tips, food nutrition tips, and healthy habits. Once, we were done watching the Youtube video, I would then ask my participants what they thought about the video and ask them to share one thing or benefit they learned from the video.

Results

Due to COVID-19, my project was not executed, therefore no results will be displayed

Discussion

Due to COVID-19, my project was not executed, therefore no discussion will be displayed.

References

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Perera, T., Frei, S., Frei, B., Wong, S. S., & Bohe, G. (2015). Improving Nutrition Education in US Elementary Schools: Challenges and Opportunities. *Journal of Education and Practice*, 6(30), 41-50.

School Accountability Report Card, SARC,

https://static1.squarespace.com/static/53a2239ce4b06eb49787564c/t/5c48e73c7ba7fc5210095ade/1548281662156/2018_School_Accountability_Report_Card_Boronda_Meadows_Elementary_School_20190121.pdf

Appendix A

Healthy Nutrition Education Powerpoint

Importance of a Healthy Nutrition

By Guadalupe Zamora

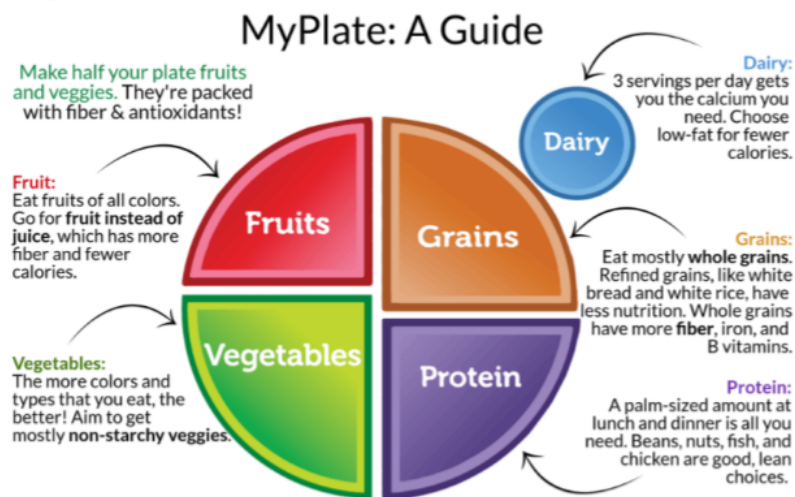
Day 1 Introduction

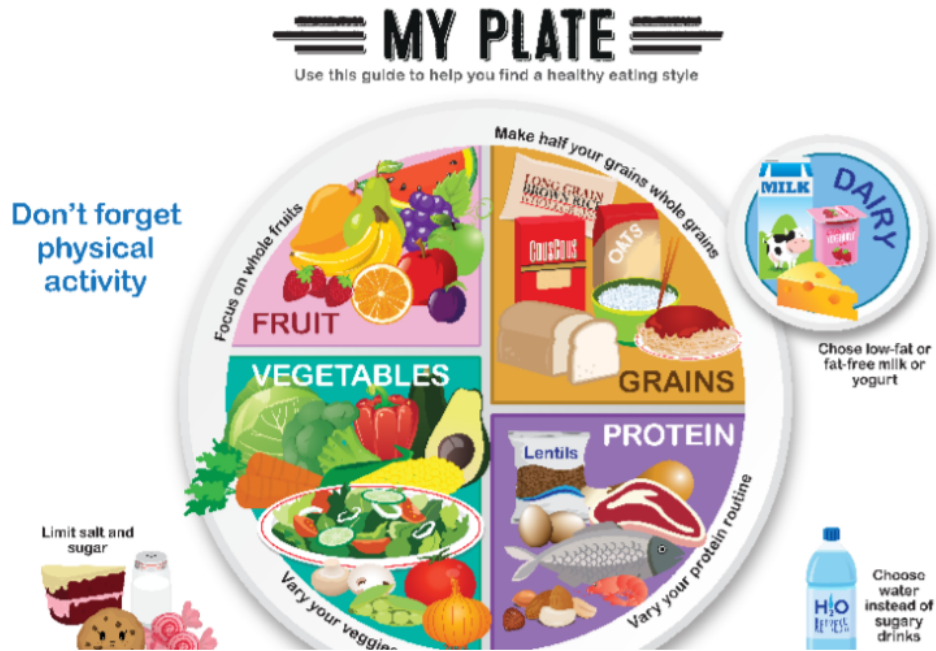


Fun Facts About Nutrition:

1. **Minerals** make healthy skin and strong bones & teeth.
2. **Fiber** helps you digest food. It is found in vegetables, whole grains, and fruits.
3. **Vitamins** help your body stay healthy and fight diseases. Vitamins are found in fruits and vegetables.
4. **Fats** in milk products, meat and fish help your body build healthy nerves and fight off disease.
5. **Protein**, which is found in meat, milk products, beans and fish builds muscle and repairs damage.

About MyPlate





Build your Own Healthy Plate

https://docs.google.com/document/d/1fZSnCaoRehTCy_XftieNW5EPn4S37V1kS_g_6jRAeE/edit?usp=sharing

Click on the Link to Create Healthy Plate

Day 2

Learning how to read food Labels

Sample label for Macaroni & Cheese

| Nutrition Facts | |
|---|-----------------------|
| Serving Size 1 cup (228g) Servings Per Container 2 | |
| Amount Per Serving | |
| Calories 250 | Calories from Fat 110 |
| % Daily Value* | |
| Total Fat 12g | 18% |
| Saturated Fat 3g | 15% |
| Trans Fat 3g | |
| Cholesterol 30mg | 10% |
| Sodium 470mg | 20% |
| Total Carbohydrate 31g | 10% |
| Dietary Fiber 0g | 0% |
| Sugars 5g | |
| Protein 5g | |
| Vitamin A | 4% |
| Vitamin C | 2% |
| Calcium | 20% |
| Iron | 4% |

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

| | Calories: 2,000 | 2,500 |
|--------------------|-------------------|---------|
| Total Fat | Less than 65g | 80g |
| Sat Fat | Less than 20g | 25g |
| Cholesterol | Less than 300mg | 300mg |
| Sodium | Less than 2,400mg | 2,400mg |
| Total Carbohydrate | 300g | 375g |
| Dietary Fiber | 25g | 30g |

1 Start Here →

2 Check Calories

3 Limit these Nutrients

4 Get Enough of these Nutrients

5 Footnote

6 Quick Guide to % DV

- 5% or less is Low
- 20% or more is High

Kahoot time!

Kahoot will be based on information from lesson before, and new information learned today.

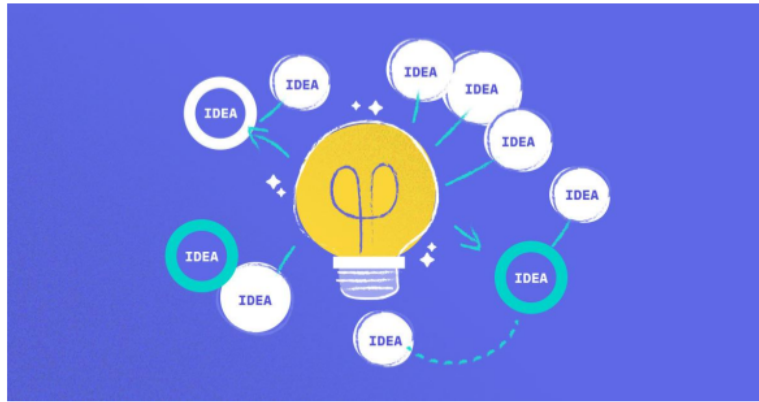
<https://kahoot.it/>



Day 3
Benefits of a Healthy
Nutrition

Brainstorm

What do you think some benefits of a healthy nutrition are?



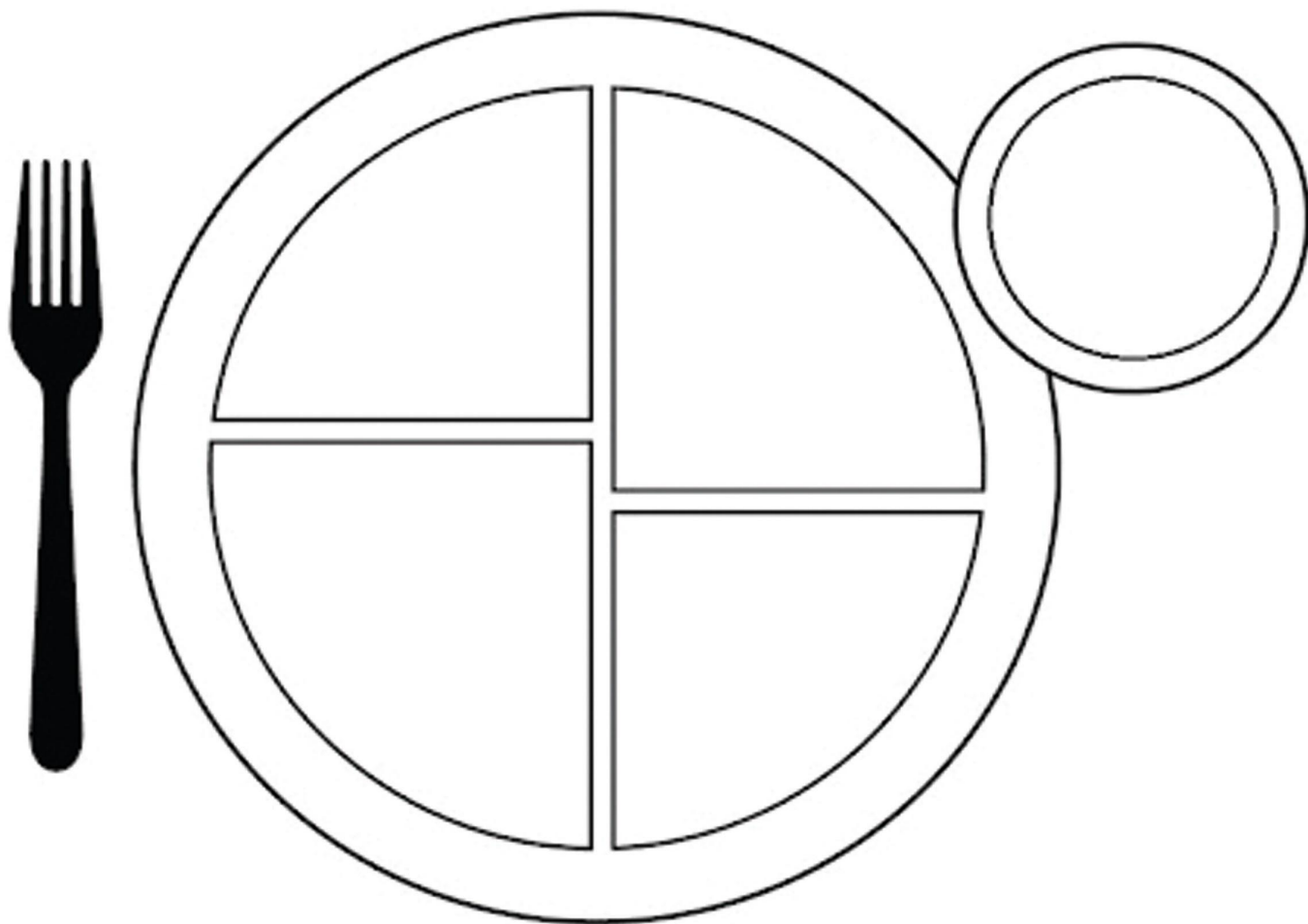
YouTube Video on Importance of a Healthy Nutrition

https://youtu.be/fagLa_46HkY

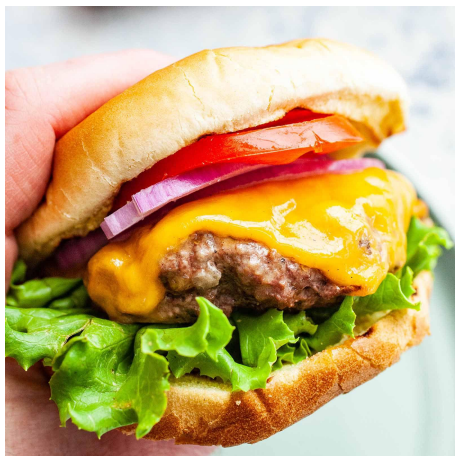


Appendix B

Create your own healthy plate. Google Document.



Food options:







Appendix C

Macaroni and Cheese food label .

Sample label for
Macaroni & Cheese

① **Start Here** →

② **Check Calories**

③ **Limit these Nutrients**

④ **Get Enough of these Nutrients**

⑤ **Footnote**

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250 Calories from Fat 110

| | % Daily Value* |
|-------------------------------|-----------------------|
| Total Fat 12g | 18% |
| Saturated Fat 3g | 15% |
| Trans Fat 3g | |
| Cholesterol 30mg | 10% |
| Sodium 470mg | 20% |
| Total Carbohydrate 31g | 10% |
| Dietary Fiber 0g | 0% |
| Sugars 5g | |
| Protein 5g | |
| Vitamin A | 4% |
| Vitamin C | 2% |
| Calcium | 20% |
| Iron | 4% |

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

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| Cholesterol | Less than 300mg | 300mg |
| Sodium | Less than 2,400mg | 2,400mg |
| Total Carbohydrate | 300g | 375g |
| Dietary Fiber | 25g | 30g |

⑥ **Quick Guide to % DV**

- 5% or less is Low
- 20% or more is High

Appendix D

Kahoot Questions



🕒 20 sec



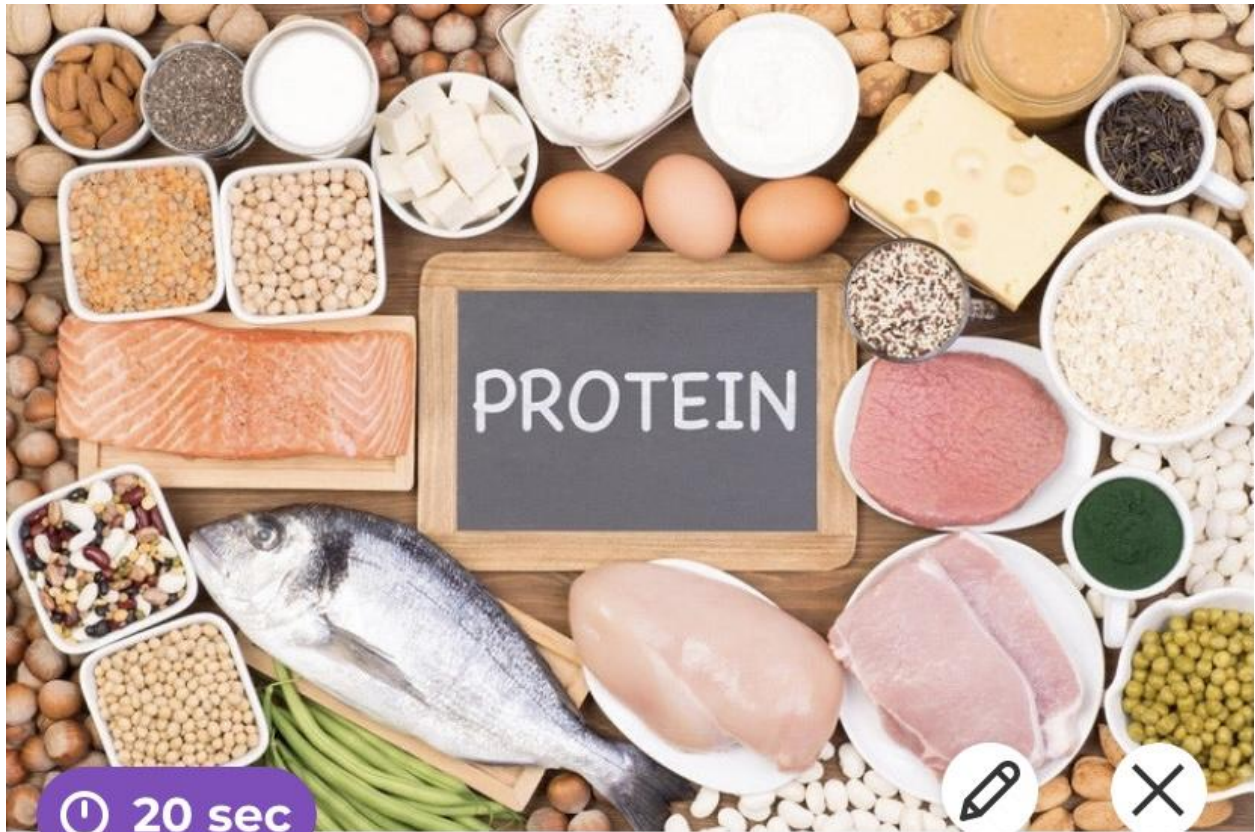
Which one doesn't belong in the food group? (Grains)

Brown rice

Wheat bread

Cheese

Whole grain pasta



20 sec

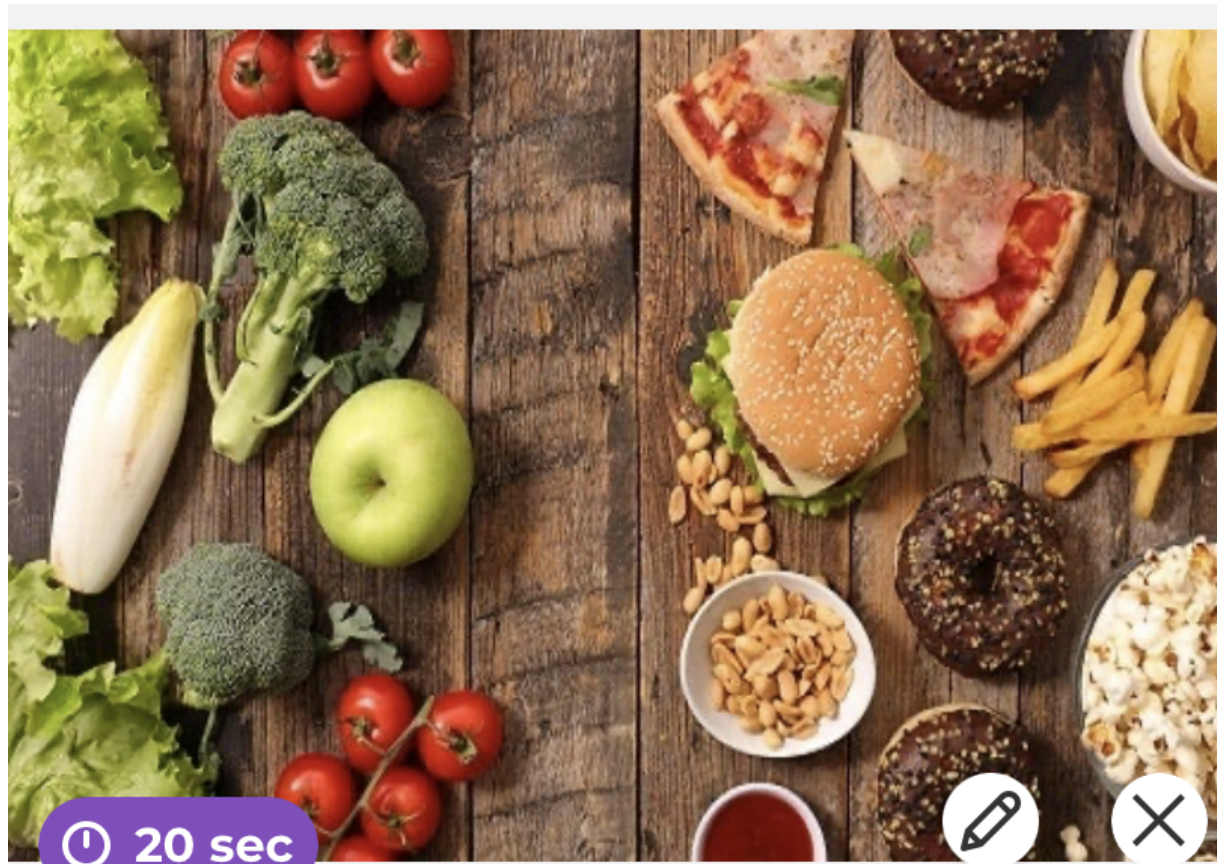
Which food doesn't belong in this food group? (Protein)

Fish

Eggs

Nuts

Oatmeal



🕒 20 sec



Which food should we avoid in our healthy plate?

Blueberry bagel

Salad

Pizza

Roasted chicken



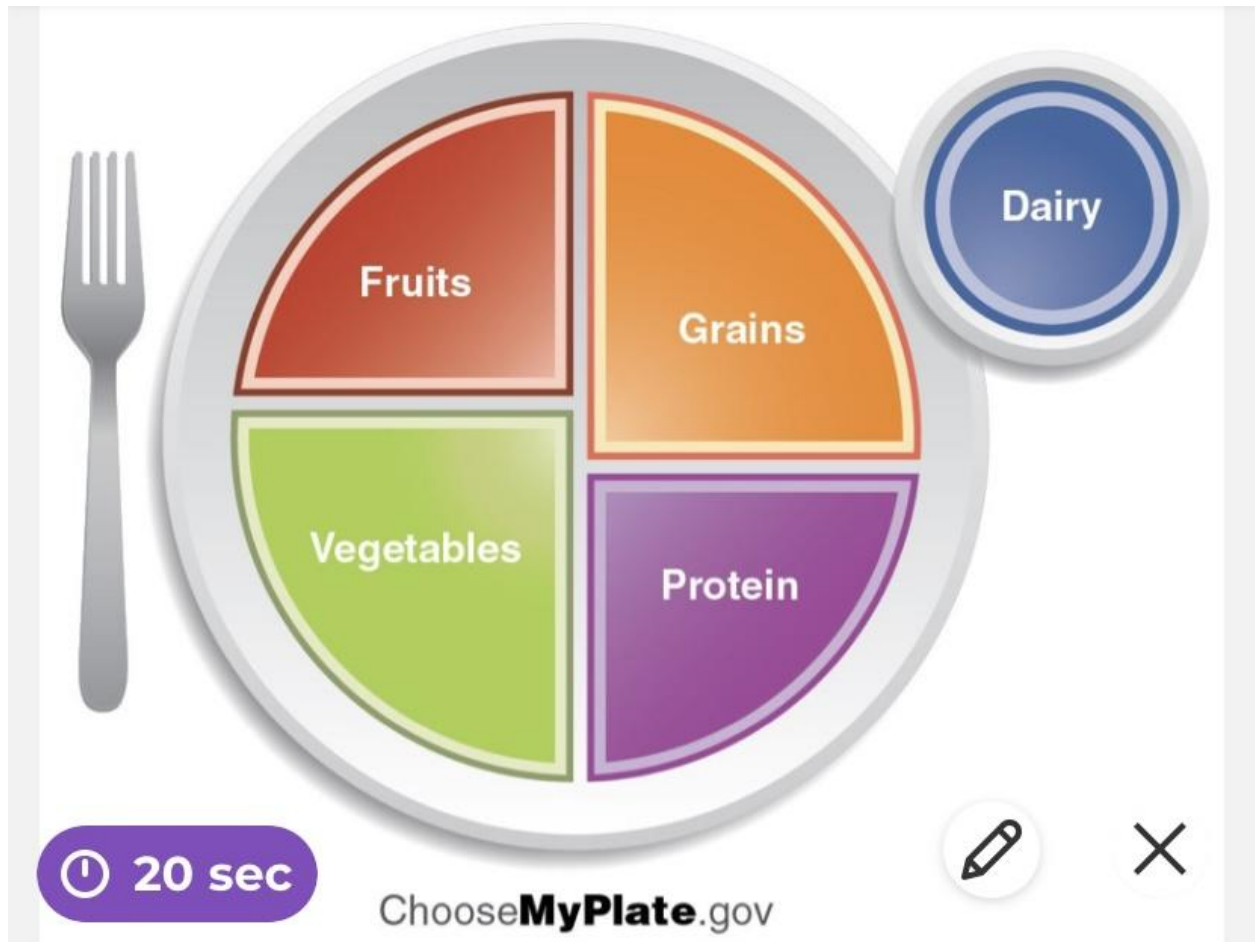
🕒 20 sec



Are saturated fats and trans fats healthy?

True

False



Which food groups should we eat the most of?

Vegetables

Protein

Grains

Fruits



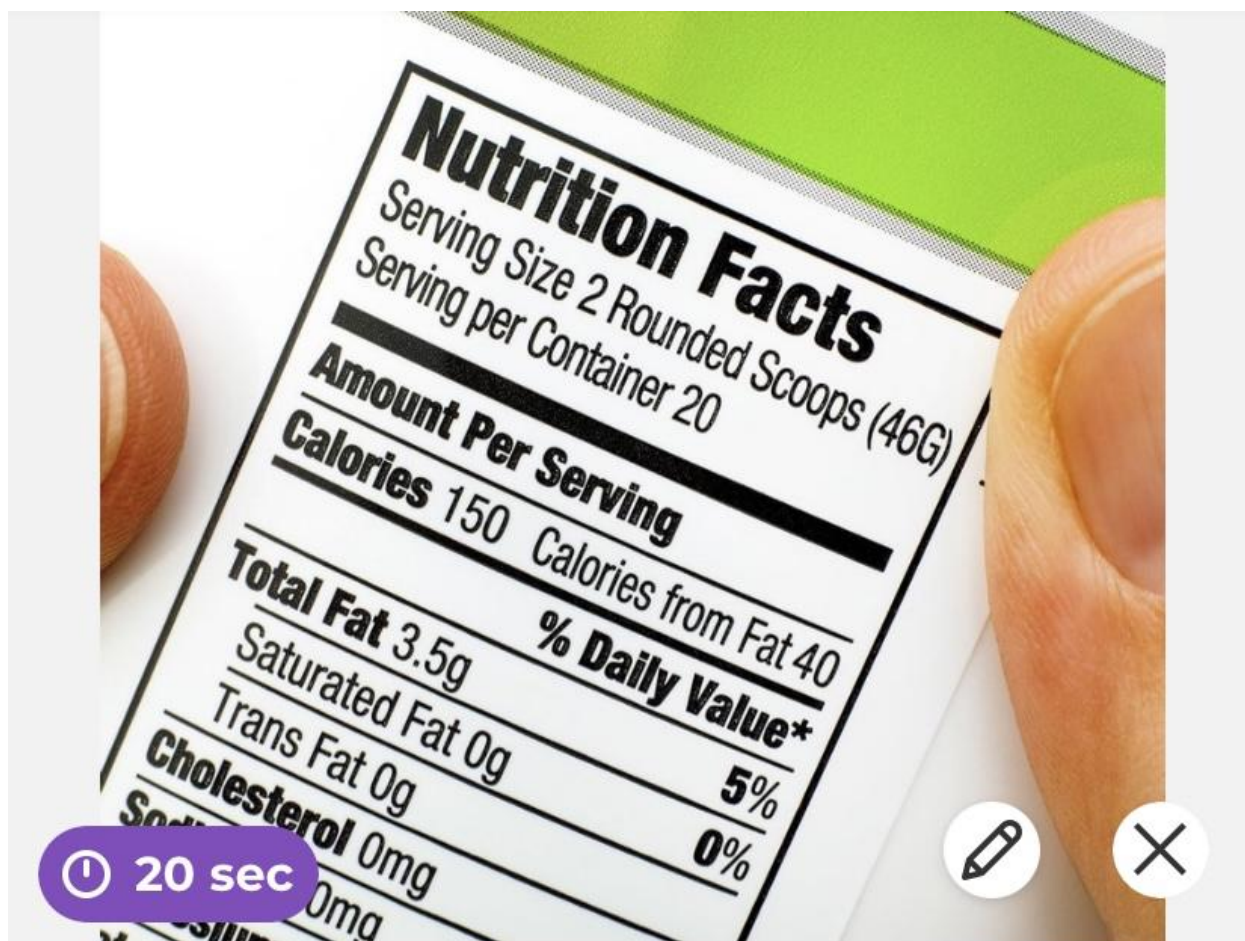
🕒 20 sec



Is it important to look out for how many calories you are eating to maintain healthy?

True

False



What type of nutrient should we limit?

Vitamin A

Vitamin C

Calcium

Sodium



🕒 20 sec



Are all fats unhealthy?

True

False

Appendix E

Presentation from Capstone Festival

Increasing Nutrition Education in Elementary Schools

— By Guadalupe Zamora —

Needs Statement

There is a lack of nutrition education in many elementary schools.



Importance of Nutrition Education

It is beneficial to teach children about healthy nutrition because:

- Helps a child's development
- Helps children maintain healthy and reduce risk of chronic disease
- Helps establish a foundation for healthy eating habits



Theory

- Jean Piaget's Theory of Cognitive Development
- Ages 6-12
- Children add new knowledge and build upon existing knowledge.
- Children adapt previously held ideas to accommodate new information.



Method

What did you do?

- 3 day lesson plan.
- 30-40 minute lessons
- Powerpoint presentation w/activities

When and where?

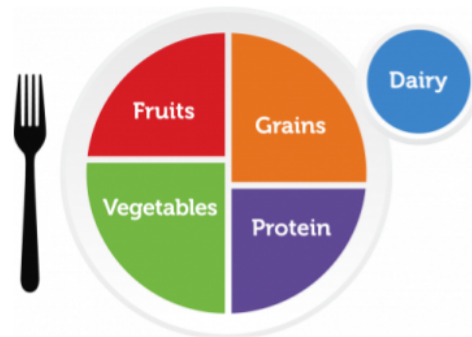
- With 4th graders at Boronda Meadows in Salinas, California



LO1: Identify at least one item that goes into each food group to build a healthy plate.

Day 1:

- Give some fun facts about having a healthy nutrition
- Go into talking about MyPlate and what it consists
- Have children build a healthy plate using google docs





Fun Facts:

1. **Minerals** make healthy skin and strong bones & teeth.
2. **Fiber** helps you digest food. It is found in vegetables, whole grains, and fruits.
3. **Vitamins** help your body stay healthy and fight diseases. Vitamins are found in fruits and vegetables.
4. **Fats** in milk products, meat and fish help your body build healthy nerves and fight off disease.
5. **Protein**, which is found in meat, milk products, beans and fish builds muscle and repairs damage.

A collage of various food and beverage items. On the left is a black silhouette of a fork. Next to it is a large circular plate divided into four quadrants by a vertical and a horizontal line, with a smaller circle to its right. To the right of the plate is a grid of food images: a slice of pizza, a glass of water being poured, a bowl of spaghetti with sauce, a plate of french fries, a plate of asparagus, a bowl of steamed broccoli, a plate of chicken drumsticks, a bowl of sliced almonds, and a bowl of mixed berries (raspberries, blueberries, blackberries). Above the grid are three items: a container of yogurt, a carton of Silk Almond milk, and a can of Coca-Cola.

LO2: Be able to analyze food labels learn how to distinguish the difference between healthy/unhealthy fats and sugars

Day 2:

- Recap of day 1
- Go over how to read a food label
- Play kahoot



Sample label for
Macaroni & Cheese

① **Start Here** →

② **Check Calories**

③ **Limit these Nutrients**

④ **Get Enough of these Nutrients**

⑤ **Footnote**

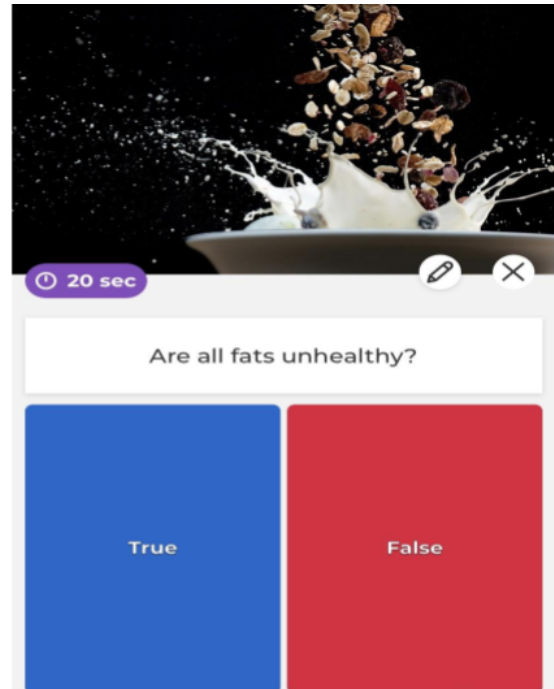
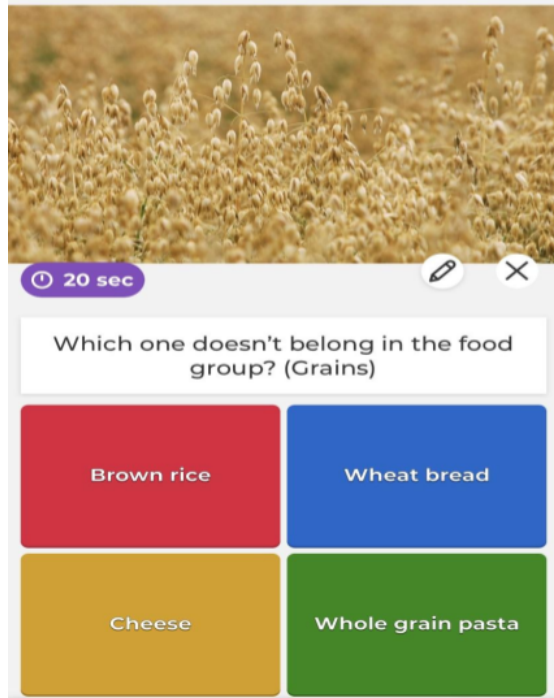
| Amount Per Serving | | % Daily Value* | |
|-------------------------------|--|-----------------------|-----|
| Calories 250 | | Calories from Fat 110 | |
| Total Fat 12g | | | 18% |
| Saturated Fat 3g | | | 15% |
| Trans Fat 3g | | | |
| Cholesterol 30mg | | | 10% |
| Sodium 470mg | | | 20% |
| Total Carbohydrate 31g | | | 10% |
| Dietary Fiber 0g | | | 0% |
| Sugars 5g | | | |
| Protein 5g | | | |
| Vitamin A | | | 4% |
| Vitamin C | | | 2% |
| Calcium | | | 20% |
| Iron | | | 4% |

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| Sodium | Less than 2,400mg | 2,400mg |
| Total Carbohydrate | 300g | 375g |
| Dietary Fiber | 25g | 30g |



LO3 Be able to describe one of the benefits of a balanced diet

Day 3:

- Recap of prior day
- Watch YouTube video about the benefits of a healthy diet
- Have children share out their thoughts



https://youtu.be/fagLa_46HkY

Results

Due to COVID19, project was not executed.



Discussion

Due to COVID19, project was not executed.

Thank You
Any questions?

Guadalupe Zamora