GLEANERS

2021 Summer Nutrition Club

Lesson 2: It's a Jungle Out There! Let's learn about some great grains and powerful proteins!

Supplies:

- Field Journal (1 per child)
- Writing Utensils
- MyPlate
- Large Cutouts of animals
- Large print out of whole grain label
- Large print out of grain anatomy
- 3 Models for a total of 5 groups (15)
    - Green felt or paper
    - Blue felt or paper
    - Brown felt or paper
- Recipe Supplies
    - Oats
    - Bananas
    - Honey
    - Dark Chocolate Chips
    - Cinnamon
    - Any Nut Butter or alternative
- Paper Plates
- Gloves
- Sanitizer
- Sanitizing Wipes

Preparation

- Gather Supplies
- Purchase supplies and make 5 sets of models, you will need:
    - 5 forest floor layers

    - 5 canopy/understory layer
    - 5 emergent layers
- Day of- make Rainforest Oat Bites (See recipe in Field Guide)
    - Scoop bites on lined baking sheet and place in refrigerator for two hours
    - Remove and then scoop onto plates for children to roll.

Objectives

By the end of the lesson children will:

1. Be able to state one way that proteins help their bodies
2. Be able to state one plant and one animal source that provides protein
3. Be able to state one way that grains help their bodies
4. Be able to identify what proportion of grains they eat should be whole grains
5. Experience the recipe of the week

I. Welcome (5 minutes)

- Introduction
- Welcome to Summer Nutrition Club
    - Last week we went on an adventure across Asia and sampled foods from one side of MyPlate- fruits and vegetables. Today we will explore the other side of MyPlate, grains and proteins!

III. Powerful Proteins (10 minutes)

- Humans and animals get proteins from all different foods.
- We need to eat proteins because they serve as building blocks for things like hair, skin, nails and bones!
    - Some animals may be herbivores, omnivores, or carnivores. Does anyone know what these mean and how it may relate to proteins?
        - Proteins can come from both animal and plant sources!
    - Remind the children that herbivores only eat plants. Omnivores eat both plants and animals. Carnivores eat other animals. Humans may eat both plants and animals, making us omnivores! However, some humans may choose to only eat plants, making them herbivores!
    - Present animals to children one by one. Ask children whether they think the animal present is a herbivore, omnivore, or carnivore.
        - In their field guide, children will record what the animal eats.
        - Sloth- Can everyone move slowly like a sloth? Does a sloth eat plants, animals, or both? A sloth eats plants, so it is an herbivore. Does anyone know any examples of foods you and I may eat that contain plant proteins? We learned about one last week! Tofu! Tofu is made from soybeans and is a great source of protein.
        - Toucan- Does a toucan eat plants, animals, or both? Toucans eat both! This means they are omnivores. Toucans eat tropical fruit, spiders, lizards, and frogs. An example of a meal you and I may eat that has protein from both plants and animal meat is beans and chicken! Beans are very high in protein and super tasty.

- Jaguar- Does a jaguar eat plants, animals or both? Jaguars eat other animals! This makes them carnivores. They often eat fish and birds. What animals may you and I eat to get proteins? Cows, chicken, pigs…
    - Did you know that plants can eat animals??? There's something known as a Venus fly trap and it traps and digests insects!
    - For younger children Sing song to tune of Baby Shark... "Baby Venus fly trap trap trap, Baby Venus fly trap trap trap, Mommy Venus Fly trap trap trap…"

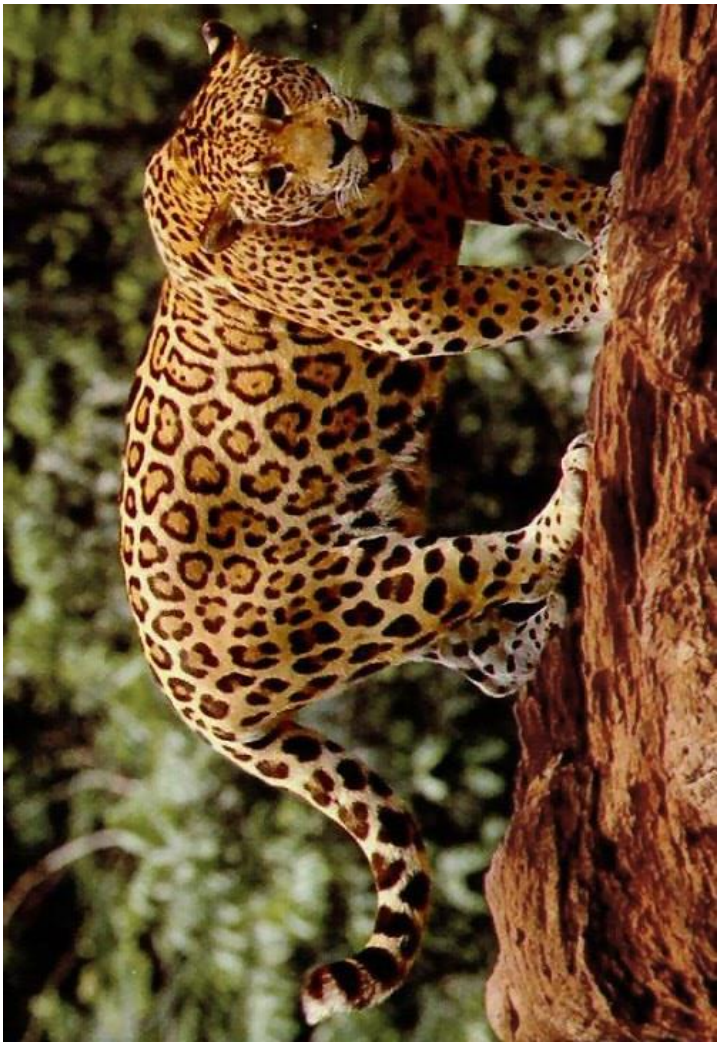
IV. Great Grains (15 minutes)

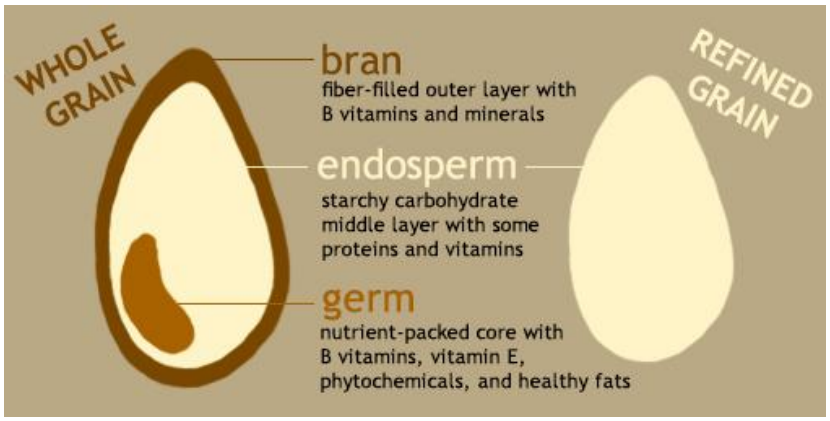
- Explain that approximately ¼ of their plate should be filed with whole grains and that half of their grains should be WHOLE.
    - Ask children to repeat "half of my grains should be whole"
        - Show whole grain label
    - Ask children if they know any examples of grains (bread, rice, oatmeal, etc.)
- Show whole grain anatomy
    - The bran has fiber to help us digest food.
    - The endosperm gives us energy to move and think
    - The germ has b vitamins that help us turn our food to energy
    - When you combine all three you get a whole grain!
- Split children into groups (approximately 5 groups of 6, children will then pair up within groups)
    - For younger children, consider assigning an adult to each group for guidance
- Explain that the children will be exploring the layers of the rainforest to discover grains. Each larger group will receive 3 models which they will share between the group. After they view a model, they will pass it to their partner. Each child will view each whole grain and record it in their field guide. The whole grains include, oatmeal, pasta, and bread. On the back of each grain children will discover the nutrient facts.
    - For older children: ask them to identify the ingredient list and dietary fiber value
- Explain that the children must be gentle with the models. When were in nature we need to leave things as we found them so treat the models the same way!
- After every child has seen and recorded the whole grains explain the layers of the rainforest.
    - Forest floor, understory, canopy, and emergent
        - Forest Floor- There are nearly no plants here. You will find decomposing leaves and lots of insects here! In this layer what did you find? Oatmeal! Oatmeal is a tasty snack that will give us lots of energy!
        - Canopy/Understory- Working our way up from the forest floor, we discover the canopy and understory. This is the primary layer of the rainforest. You'll find lots of trees and branches here. You'll also find the animals we talked about, sloths, toucans, and jaguars. In this layer you found pasta! Pasta fills you up and gives you plenty of energy!
        - Emergent- The tallest trees are located in the emergent layer, there is plenty of sunlight here! You'll find eagles, monkeys and bats up here. In this layer you found whole wheat bread which is full of fiber!

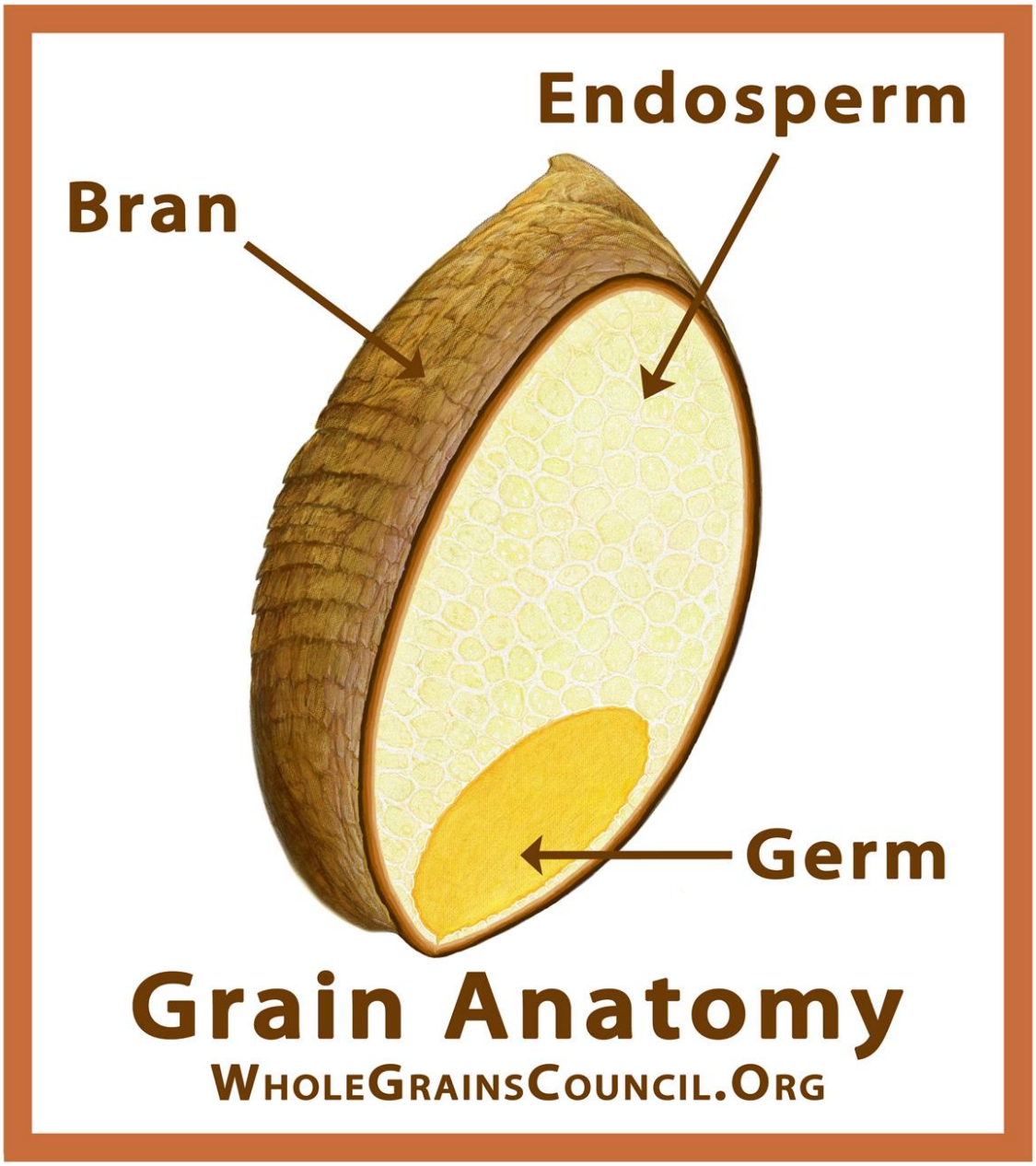
GLEANERS

VI. Sampling/ Wrap-up (10 minutes)

- Today we're going to be trying… Rainforest Oat Bites
    - Bites will be prepped the day of and stored in the refrigerator
    - Each child will receive a small plate filled with the product and then roll it on a paper plate to form a ball.
- Remind the children that it's okay if they do not like it! Politely place it in a napkin and take it to the trash can. You're still a jungle explorer today no matter what!
- Ask Questions
- Does anyone have any guesses to what are in these?
    - Reveal ingredients
- Can someone raise their hand and tell me what the whole grain is in this snack?
    - Oats
        - Follow-up- And what amount of the grains we eat should be whole? HALF
- Raise your hand if this was your first-time trying oats! Raise your hand if this was your first time trying a banana!
- Say Goodbyes
    - I'll see you all next week for another adventure!




WHOLE GRAIN
bran
fiber-filled outer layer with B vitamins and minerals
endosperm
starchy carbohydrate middle layer with some proteins and vitamins
germ
nutrient-packed core with B vitamins, vitamin E, phytochemicals, and healthy fats
REFINED GRAIN


Endosperm
Bran
Germ
Grain Anatomy
WHOLEGRAINSCOUNCIL.ORG

DIRECTIONS: FOR 30 CHILDREN (5 sets of 3, 15 total models)

- Print 5 grain pages. Cut out grains and glue the appropriate nutrition label on back of grain.
- Using leaf templates cut leaves out of felt or construction paper in the corresponding colors /backgrounds:
    - Forest Floor- brown/brown
    - Understory/Canopy- green/green
    - Emergent- green/blue
- Partially glue leaves to the background
- Place the grains beneath leaves for children to locate
    - Forest Floor- oatmeal
    - Understory/ Canopy- pasta
    - Emergent- bread
- See examples below

Forest Floor

Understory/Canopy

Emergent

GRAINS

Nutrition Facts
Serving Size 1 Packet (28 g)
Servings Per Container 12

Amount Per Serving	
Calories 100	Fat Calories 20
	% Daily Value*
Total Fat 2g	**3%**
Saturated Fat 0.5g	**2%**
Trans Fat 0g	
Polyunsat Fat 0.5g	
Monounsat Fat 0.5g	
Cholesterol 0mg	**0%**
Sodium 75mg	**3%**
Potassium 105mg	**3%**
Total Carbs 19g	**6%**
Dietary Fiber 3g	**11%**
Soluble Fiber 1g	
Sugars 0g	
Protein 4g	
Vitamin A	15%
Vitamin C	0%
Calcium	10%
Iron	40%
Thiamin	10%
Phosphorus	10%
Magnesium	8%

*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
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Ingredients: Whole grain rolled oats, calcium carbonate, salt, guar gum, caramel color, reduced iron, vitamin A palmitate.

Nutrition Facts
20.0 About servings per container
Serving size **1 slice (34g)**

Amount per serving	
Calories	**90**
	% Daily value*
Total Fat 1g	**1%**
Saturated Fat 0g	**1%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 200mg	**9%**
Total Carbohydrate 18g	**6%**
Dietary Fiber 2g	**6%**
Sugar 2g	
Protein 3g	
Calcium 30mg	2%
Iron 1.3mg	8%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Nutrition Facts
8 servings per container
Serving size **2 oz (56g)**

Amount Per Serving	
Calories	**180**
	% Daily Value*
Total Fat 1.5g	**2%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 0mg	**0%**
Total Carbohydrate 36g	**14%**
Dietary Fiber 7g	**25%**
Soluble Fiber 2g	
Insoluble Fiber 5g	
Total Sugars 1g	
Protein 8g	
Vitamin D 0mcg	0%
Calcium 17mg	2%
Iron 2mg	10%
Potassium 274mg	6%
Thiamin 0.5mg	40%
Riboflavin 0.3mg	25%
Niacin 7mg	45%
Folate 71mcg DFE	20%
Phosphorus 224mg	20%
Magnesium 54mg	15%
Zinc 2mg	20%
Manganese 1.5mg	70%
Not a significant source of added sugars.	

* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS: WHOLE GRAIN DURUM WHEAT FLOUR
CONTAINS WHEAT INGREDIENTS.

Barilla America, Inc.
Northbrook, IL 60062
Made in the U.S.A. with U.S.A. and imported ingredients.

100% WHOLE GRAIN

Call 1-800-922-7455 with any comments or questions.

LEAF TEMPLATES