



# Protein Group

2<sup>nd</sup> Grade Lesson Plan

**Goal:** Recognize foods in the Protein group as part of a healthy diet.

## Objectives:

1. Students will state that foods in the Protein group provide protein to help the body grow and heal.
2. Students will name one meat (animal) and one non-meat (plant) food in the Protein group.

## Materials Needed

- |  |   |
|--|---|
| <input type="checkbox"/> MyPlate poster or plate               | <input type="checkbox"/> Reasons to eat protein posters |
| <input type="checkbox"/> Protein group food models or pictures | <input type="checkbox"/> Student/parent handouts        |
| <input type="checkbox"/> Protein group poster                  | <input type="checkbox"/> Taste Test                     |
| <input type="checkbox"/> Lego or Lincoln log house             |   |

Lesson	
Talking Points	Materials/Activities/Notes
<b>Review</b> <ul style="list-style-type: none"> <li>• Who remembers what we talked about last time I was here?</li> <li>• I gave you a challenge last time I was here. Does anyone remember what it was? Does anyone want to share how they did with the challenge</li> </ul>	
<b>Mind Grabber</b> <ul style="list-style-type: none"> <li>• <b>The Case of the Missing Muscles</b> <ul style="list-style-type: none"> <li>○ Read story from "Additional Activities" section below.</li> </ul> </li> </ul> OR <ul style="list-style-type: none"> <li>• <b>Lego House</b> <ul style="list-style-type: none"> <li>○ I brought in this house today made out of Legos (or Lincoln logs). I used the Legos to make this house, so we could say that the Legos are the building blocks of the house. We can look around the room and see the different kinds of building blocks used to make it (cinder blocks, glass, ceiling tiles, etc.).</li> <li>○ Just as my building is made of blocks of Legos, our bodies are also made from small building blocks. These blocks are called proteins.</li> <li>○ You might know that our muscles are made of protein. But, did you know our skin, hair, eyes and body organs, such as the heart, are all made from protein? If we are made up of so much protein, it must be pretty important!</li> </ul> </li> </ul>	
	Before beginning the story distribute the puppet characters to students who want to help with the story. Tell them, when they hear their characters name to hold up the puppet.  Show students a house made out of Legos or Lincoln logs.



## Discussion

### Foods in the Protein Group

- Today we are going to talk about the purple area on MyPlate. It is called the Protein group because all the foods found in the group have a lot of protein for our bodies.
- The foods in this group help us grow and to have strong muscles.
- Does anyone know any foods in the protein group? Do you remember our friend Dean Protein?
- Let's look at the foods in this special group. You will notice that some of the foods in this group we get from animals and some of the foods we get from plants. This is the only food group where this happens!

### Choosing Foods from the Protein Group

- It is important to eat foods from the Protein group several times each day. And, it is a good idea to choose a **variety** of foods from this group. What does the word "variety" mean?
  - Choosing many different foods from this group rather than eating the same foods every day.
  - For example, instead of eating hamburgers every day, you might choose chicken sometimes, beans sometimes, beef, fish or eggs sometimes, and nuts and seeds or peanut butter at times.

### Why the Protein Group is Important

- Remember the Protein group foods give us protein.
  1. Protein helps us to grow. Eating foods from the Protein group gives you the protein you need to get bigger. Protein not only helps you grow taller, but it also helps your hair grow, and your muscles, skin, fingernails, and all parts of your body grow.
  2. Protein also helps us to heal. If we get cut, we need protein in order to heal. Our bodies help cuts to heal by adding protein blocks to the cut. Just like a construction crew builds and repairs buildings, proteins do the same thing for us.

Write "Protein" on the board or point it out on the Protein food group poster.

Have students show you their muscles. Show Protein Group poster or a few individual protein group pictures.

While going through each picture on the poster or cards, ask the students if that food comes from a plant or an animal. OR Play "Plant or Animal?" Game: have students pretend to be a plant or an animal (or hold up a card that says "plant" or "animal") as you go through different foods in the protein group.

Show "Reasons to Eat Protein" posters as you discuss each point.

Make a hole or tear apart a portion of the Lego building. Show the students that it needs a repair and then fix it by adding a block.

## Wrap-Up

Remember that foods in the Protein group come from both plants and animals. They give our bodies protein, which helps our bodies grow and heal. Remember that your bodies are made of blocks of protein just like the Lego or Lincoln log building was made of little blocks. Finally, remember to eat a variety of foods from the Protein group.

## Challenge

For next time, I challenge you to be prepared to tell me two foods that you ate from the Protein group. One of the foods should be from an animal and one should be from a plant.



## Taste Test Ideas

- Hummus or bean dip with pita or chips or carrots and celery sticks
- Bean and corn salsa with whole grain tortilla chips
- Sunflower or pumpkin seeds
- Soy nuts
- Tofu teriyaki or something made from tofu
- Construction activity/tasting: Use some type of hummus or bean dip or even sunflower butter with crackers and maybe a few veggies like carrots and celery to build a building or a creature. Take pictures, then eat. (The tuna boat tasting could also fall into this type of activity.)
- Tasting Circle (see “Additional Activities”)

## Additional Activities / Optional Discussion

### 1. The Case of the Missing Muscles (Adapted from National Dairy Council 2005, Arianna’s Nutrition Expedition)

*Before beginning the story, distribute the puppet characters to students who want to help with the story. Tell them, when they hear their characters name to hold up the puppet.*

It was a beautiful Saturday in early spring time. I was out for a jog to get some exercise before I headed to my friends’ house for dinner. My name is Power Protein and together with the other Nutrient Superheroes, Captain Carbohydrate, FatCat, Wonder Water, Vitaman and Mighty Mineral, I teach people about the importance of eating from the 5 healthy food groups every day so their bodies will be strong, healthy and have lots of energy. My friends and I battle the evil influences of Senorita Sugar, the Bad Fat brothers (Sat and Trans) and Sneaky Salt. These villains hide in some of our foods and bring us down by making our bodies feel sluggish and overall awful. They slow us down and make our bodies less healthy.

I was on my second lap around the city park when I noticed my neighbor’s son, Pinto, sitting on the park bench looking VERY sad. He was obviously upset about something. I went over to see if I could help. The last thing I expected on that beautiful day was a mystery about missing muscles...but that was just what I got.

“Hi Pinto, everything okay?” I asked.

“Not really. My PE teacher, Mr. Green told us the PE fitness test is coming up next week. For my age, I have to do 3 pull ups to pass. I’ve been down here practicing on the monkey bars every day and I still can only do one. I can’t figure out what is wrong, why I’m not getting any stronger. And, in the fall I was hoping to try out for little league football.”

“Umm, it seems to be a case of some missing muscles.” I said. I suspected one of the food villains, like Senorita Sugar, Sneaky Salt or the Bad Fat brothers (Sat & Trans) could be to blame. “Pinto, is it possible you have been eating too many sugary, salty or bad fat snacks, like honeybuns, fruit chews, Doritos or Takis? And, drinking too many sodas or sweetened fruit drinks?” I asked.

“Oh no, Power P ( Power P is what the kids call me for short) I remember what you and the other Nutrient Superheroes taught us last year when you came to our class... about watching out for sugary, salty and bad fat snacks and treating yourselves to them only once in a while.” “Good Pinto, so Senorita Sugar, Sneaky Salt, Sat and Trans are not the problem. Have you been getting enough sleep?” I asked.

“Yes, I have been getting at least 10 hours a night.” Replied Pinto.

“Good.” I said. It was turning into quite a mystery. If Pinto was steering clear of the foods where the food villains like to hide and getting enough sleep, then what could the problem be? “Pinto, tell me what you have been eating this week while you have been trying to strengthen up for this PE test.”

“I eat healthy foods”, Pinto said. “I eat lots of bread, cereal and pasta because these foods give me energy. I also snack on rice, tortillas and popcorn. I eat at least five servings of fruits and vegetables every day – sometimes more. I especially love munching



on strawberries, carrots and broccoli. And I drink milk three times a day with my meals. I rarely eat dessert except for my birthday, when I eat an extra-large slice of cake with ice cream. I don't know why my muscles feel so weak."

I held up one, two, three, four fingers, and announced, "I've solved the mystery!" "Pinto, you have been leaving out one of the five healthy food groups. The one that has foods that have protein to build strong muscles! Foods like eggs, chicken, fish, black beans and peanuts. Add some of these to your meals and keep exercising, and you will strengthen up fast."

Two weeks later I saw Pinto at the park again. "How did the PE test go?" I asked.

"Great Power P! Thank you for solving the mystery of my missing muscles. I added some Protein group foods to my meals and snacks and kept exercising, just like you told me, and when I took the test I was able to do 5 pull-ups. Also, I can now do 2 sets of 20 push-ups. I think I will be ready for little league football in the fall."

"I'm glad to help, Pinto. Keep eating foods from the 5 healthy food groups every day and getting the exercise your body needs and you can do anything you put your mind to!"

2. **Which Animal Game:** Put the plant and animal posters where all the students can see them. Have each child come to the front of the class and give them a food picture. Have the student tell the class what the food is and then place it with the plant or the animal poster. Or you can use animal posters (cow, pig, chicken, etc.) and have each child place the food picture on the animal it comes from.

Variation: Have students pretend to be a plant or an animal (or hold up a card that says "plant" or "animal") as you go through different foods in the protein group.

3. **Protein Group Identification Game:** A student volunteer stands facing the rest of the group with his/her back to the teacher. Teacher holds up a big picture of a food from the protein group with its name written on it. The volunteer must not be told what the picture is. The object of the game is for the volunteer to figure out what the food is based on clues given by classmates. The volunteer calls on students in group who give clues until the volunteer guesses the food.

Clues may include the following:

- Whether the food is from an animal or a plant,
- If meat, what animal it comes from,
- Color, taste (sweet, sour, etc.),
- At what meal it is usually eaten,
- Whether it is usually eaten hot or cold,
- Association with holidays, etc.

No spelling clues allowed

Variation: Ask any students who bring their lunches to play "Stump the Class" by having classmates guess the protein foods in their lunch boxes. Use clues above. Bring food safety into the discussion by emphasizing that many protein foods need to be refrigerated or stored with an ice pack.

4. **Protein at Lunch:** Provide a school lunch menu for this week and ask students to identify the protein foods.
5. **Tasting Circle:** Since the foods in the protein group come from both plants and animals and are sometimes a bit harder for us to remember, today we are going to have a TASTING CIRCLE where we are going to taste several foods from the protein group.
  - Before we start tasting, let's talk a little about eating mindfully. We talked a little about this in our first lesson on healthy bodies. Who can tell what it means to be mindful? That's right...being aware, or being present. When we are mindful, we notice our thoughts, our feelings, and what our bodies are telling us. Being mindful is not about what we eat. It's about *how* we eat.



- When we are tasting these foods from the protein group I really want you to be mindful of each food...how it tastes, how it feels, its shape, color, size smell...notice everything about the foods. Let's practice with the first food together and then you can do the other ones on your own.
- Let's start with the sunflower seed. First, take a look at it, noticing its texture and its color. Now, close your eyes and feel the seed. What does it feel like, rough or smooth? Hard or soft? Wet, dry, or sticky? How does it feel? Now, smell the seed. Does it smell? What do you notice about its smell. Now put the seed in your mouth. Take the time to notice what it feels like in your mouth before you start chewing it. Begin chewing very slowly and just focus on the taste and flavor of the food and the feel of the food in your mouth. Notice how it feels to chew the food and swallow being aware of how the seed feels as it goes down your throat into your stomach.
- Now we are going to taste several other foods from the protein group. As you are going through them, use your mindful eating skills to really taste the foods.

*Suggested foods to taste: Sunflower seeds, black beans, chick peas, tofu, eggs, chicken, sunbutter*

6. **Food Safety Moment (COOK):** Cook all meats, eggs, and fish to the proper temperature using a thermometer.
- Germs like to live at a comfortable temperature, just like we do. They don't like when it's too hot like it is in the oven or on the stove. Room temperature, like it is in this room or in our homes, is a comfortable temperature for germs and they grow at this temperature. This is called the danger zone, because if germs grow in our food, they can make us sick when we eat the food.
7. **Choosing Foods in the Protein Group:**
- Portions: Protein is important for our bodies, but it is important to remember not to eat more protein foods than your body needs. Eating too much protein is like filling a glass with water - it overflows if you pour too much and doesn't do anyone any good. Your body either stores extra protein as body fat or gets rid of it in the urine. Either way it doesn't help you. Look at the MyPlate poster. You see that protein is on the plate because we need it every day, a little at each meal is the best. But, notice it makes up a little less than  $\frac{1}{4}$  of a healthy plate. (**Optional demonstration:** Pour water into a glass that you put in a bowl to avoid big messes! Allow the water to overflow.)
  - Heart Healthy Protein: Like all of the food groups, there are healthy and not so healthy foods in the Protein group. The healthier foods are called lean foods. Does anybody know what the word "lean" means? Lean = low fat. So which foods in the protein group are the heart healthy choices?
    - ALL the foods in the protein group that are from plants are heart healthy. Black beans, pinto beans, black-eyed peas, peanuts & peanut butter, almonds, sunflower seeds.
    - SOME of the foods in the protein group that come from animals are heart healthy. Fish, chicken, eggs and many cuts of steak and pork chops. These meats are called lean meats. The meats that are not heart healthy have a lot more fat with them. Hot dogs, hamburgers, sausage and bacon. PLUS, the heart healthy meats that are fried, like fried chicken and fried fish are no longer heart healthy because in frying the meat we add fat to it.
    - Let's play a game to see if we can identify the heart healthy foods in the protein group that will help us build a strong body. **Play the Heart Healthy, not so Heart Healthy game:** Using pictures of various foods from the Protein group have the students hop once if the food you show is heart healthy and squat down if it is not.



### Student Handouts

- Protein Word scramble
- Where is the Fat
- Animal/Plant Handout
- Chef Solus Word Search
- Help Keep Your Heart Healthy
- Mighty Munching Menu Mix-up
- Protein Group Foods Build a Strong Body
- Protein Builds a Body

### Parent Handouts

- With Protein Variety is Key 10 Tips (Eng/Spa)
- Today in Nutrition class...Protein (Eng/Spa)

### Lesson Roadmap

- Review
- Mind Grabber: The Case of the Missing Muscles story or Lego House
- Discussion
  - Proteins are building blocks of body
  - Foods in the protein group (from plants and animals)
  - Why the protein group is important
- Activity or Tasting Circle
- Wrap-up
- Challenge
- Tasting/Cooking

