

MyPlate-Protein: Brain Food

3rd grade- 5th grade

MyPlate Connection

Lean proteins give your body the strength and energy it needs to stay active and focused. Imagine biting into a juicy grilled chicken breast, enjoying a spoon full of chick-pea curry, or a flavorful turkey burger. If you prefer plant-based options, how about a savory black bean burger, a handful of crunchy almonds, or a bowl of creamy lentil soup? These foods are not just tasty; they help build strong muscles, keep you full and energized, and support your overall wellness. Lean proteins also help your body heal and fight off illness.

Nutrition Objective

Students will understand the important role protein plays in maintaining a balanced and active life.

Cross Curricular Connection

ELA, Science, SEL

Materials

- **Explore your lending library for books that support the lesson!**
- **Ingredients**
 - dried cranberries
 - dried apples
 - whole-grain cereal
 - shelled sunflower seeds (protein)
- food picture cards - optional

Essential Vocabulary

Protein- A protein is a special nutrient that helps build and repair your body's muscles, skin, and other important parts.
Example-My sunflower seeds have a lot of protein and give me energy to play!

Moderate to Vigorous Physical Activity (PA)

Strength:
Push-ups:
Note: if you do not have access to blank wall space, you can potentially try to use desks, tables, or even chairs.
On your feet or in your seat–

- Stand or sit in a chair about an arm's length or less in front of a wall
- Place both hands on the wall, chest level and shoulder width apart
- Keep your body straight and slowly bend your elbows and lean your chest towards the wall
- Push back through your palms to straighten your arms and return to the starting position.
- Set a timer for 15-20 seconds and keep moving until the timer rings
- For an added challenge you can try to bend your elbows more slowly and pause before straightening them back out again

(15-20 seconds)
Take 10 seconds to breathe
The Balancing Airplane or Crossing Toe Touches

On your feet –

- Stand on your right leg and bring your arms up and out to your sides for balance.
- Begin to lean forward over your right leg
- Let your left foot to lift off the floor behind you
- Try to lean forward until your back is flat like a table
- Stand up and switch to stand on your left leg
- Repeat until the timer has counted down
- For a harder challenge, try to put your arms down at your sides

In your seat –

- Sit tall and hold your arms out to your sides
- Begin to lean forward and reach your right hand toward your left toes
- Sit back up to switch sides
- Lean forward and reach your left hand toward your right toes
- Sit back up and repeat until the timer has counted down

(15-20 seconds)

Take 10 seconds to breathe

Kneeling or Seated Back Extension or Seated Forward Flexion

On your feet (knees) –

- Kneeling on the floor sit tall on your knees without sitting on your heels
- Cross your arms to hug yourself, grabbing opposite shoulders
- When the timer starts, begin to lean back without sitting
- Come back up to sit straight and then repeat until the timer has stopped

(15-20 seconds)

Take 10 seconds to breathe

In your seat –

- Sit tall and cross your arms to hug yourself grabbing opposite shoulders
- When the timer starts, begin to lean forward without coming all the way onto your thighs
- Sit back up and then repeat until the timer has stopped while keeping your back as straight as possible

(15-20 seconds)

Think about how you feel – is your heart pumping faster? Are you thirsty? Do you feel energized?

Take a deep breath in and let it out.

Lesson Process

Key Points

Teacher says, “Your body is always communicating with itself. Through different signals and chemicals your body can let you know when you may need to eat, when to move and play, or even rest.”

Teacher asks, “Who can name a signal their body gives them to know it may be time to eat?”

Speaking Stem: (Turn and Talk) “A cue or sign my body gives when it is hungry is...”

Teacher continues: “Communication between your various brain cells is done through the wonders of protein.”

Protein, which comprises one-quarter of your MyPlate can be eaten in many delicious and handy ways. Tofu stir-fry, sunflower seeds, edamame, grilled fish, pho (fuh), chick-pea soup are all nutritious ways of enjoying the many unique options that the “protein” group offers.”

Teacher says-“When we eat protein we may notice our bodies feel fuller longer. This is because Proteins make you feel full for longer as they take more time to digest.

Teacher says and reads chart, “Protein plays many roles in our bodies-for example...

Role	Description
Building and Repairing	Proteins help build muscles, bones, skin, and organs and repair tissues after injuries.
Energy Source	They provide energy when the body needs it, especially if other energy sources are low.
Supporting Growth	Essential for growing kids to develop strong muscles and bones.
Making Body Chemicals	Proteins help create enzymes, hormones, and other chemicals the body needs to function properly.
Boosting Immunity	Proteins produce antibodies that help fight off illnesses and support the immune system.

Teacher asks, “What is the role of protein in a balanced diet?”

Speaking Stem (Turn and talk) - “The role of protein is..”

Teacher summarizes: When preparing your mind and body for full days of learning, ensuring you are fueled for success is key.

Do you need a fast snack when you get home from school or before you start your homework, or how about before you play with friends? Reach for Greek yogurt, turkey-jerky, or nutritious trail mix with yogurt covered raisins.

Proteins come in the form of plant-based and animal-based. When consuming animal-based proteins, consider lean or low-fat proteins such as lean pork loin or skinless chicken breast.

Continue to build your mindfulness skills by noticing what proteins support feeling and functioning at your best during the school day. Does scrambled tofu and cheese fill your stomach? How do you feel after your midday snack? Checking in with your body and mind can support your personal and educational goals.

Teacher asks, “Can you name a lean protein you like to eat or would like to try?”

Speaking Stem (Turn and talk) - “A lean protein I already enjoy eating is...” or “A lean protein I would like to try is..”

Support students by referring to key facts in the texts as needed.

Animal-Based Proteins	Plant-Based Proteins
Chicken (skinless)	Beans (black, kidney, etc.)
Turkey	Lentils
Fish (salmon, cod, tuna)	Chickpeas (garbanzo beans)
Eggs	Tofu or tempeh
Low-fat yogurt	Edamame (soybeans)
Low-fat cheese	Nuts (almonds, walnuts, etc.)
Lean beef or pork	Seeds (sunflower, pumpkin)

Watch this video with your class to reinforce what a protein is!

<https://www.youtube.com/watch?v=KSKPgSGSYA>





































Lesson Activity (Exit ticket)

Protein Power Moves!

Activity Instructions:

1. Introduction (3 minutes):
2. Show students different protein-rich foods (use food cards or Activity Slide on Google Slides). Briefly explain how proteins help build strong muscles, keep them energized, and support their bodies in being active.
3. **Teacher asks**, "Can you think of a time when you needed strong muscles?" (e.g., running, enjoying the playground, carrying something heavy).
4. Protein Power Game (10 minutes):
5. Place all food items in a basket or bag.
6. Create two teams. One by one, students will take turns pulling out a food item and announcing its name.
7. As a class, decide if the food is a protein.
8. If it is a protein, the student leads the class in a "Power Move" (e.g., flexing, jumping, squatting, running in place).
9. If it is not a protein, the student leads the class in a "Rest Move" e.g., yoga pose (use cards if available) slow stretch, deep breath, etc.
10. Continue until all items are pulled from the bag.
11. Wrap-Up (2 minutes):
12. **Teacher asks**, Which protein foods did we find today? How do proteins help our bodies?
13. Encourage students to notice when they eat proteins at home and think about how they help them stay active.

Healthy Fuel Foods Chart

Proteins 				Healthy Fats 
 Chicken	Veggies 	Whole Grains 	Carbs 	
Eggs 	Broccoli 	Brown Rice 	Sweet Potatoes 	Avocado 
Fish 	Carrots 	Quinoa 	Apples 	Nuts 
Tofu 	Spinach 	Oats 	Bananas 	Olive Oil 
Beans 	Peppers 	Whole Wheat Bread 	Berries 	Seeds 
Yogurt 	Tomatoes 	Whole Wheat Pasta 	Grapes 	Cheese 
	Cucumbers 	Popcorn 	Potatoes 	Dark Chocolate 

Lesson Expansion Activity

Draw a picture of yourself achieving a goal along with a delicious protein that would help fuel your success!

Mindfulness Moment

Staying active is important for your body and your mind! When you eat lean proteins, you give your muscles the fuel they need to stay strong. Lean proteins also help you focus and stay calm. By combining mindful activities like deep breathing or stretching with a diet rich in lean proteins, you can keep your body energized and your mind sharp!

Students Can

All students can participate in the food prep in some way. Students may open cans, wash produce, cut foods with appropriate knives, mix foods, and serve peers. Support students with hand over hand if needed.

Preparation and Recipe

Grab and Go Brain Food!

Feed your brain and body with nutritious trail mix!

Ingredients:

dried cranberries

dried apples

whole-grain cereal

shelled sunflower seeds (lean protein)



Directions:

1. Students open ingredients and put into individual serving containers, bowls, or cups.
2. Students pick and mix their own trail-mix.

Colorado Comprehensive Health Standard(s)

Third Grade, Standard 2. Physical and Personal Wellness. 1. Apply knowledge and skills to engage in lifelong healthy eating.

Fourth Grade, Standard 2. Physical and Personal Wellness. 1. Apply knowledge and skills to engage in lifelong healthy eating. 3. Apply knowledge and skills related to health promotion, disease prevention, and health maintenance.

Fifth Grade, Standard 2. Physical and Personal Wellness. 1. Demonstrate the ability to make good decisions about healthy eating behaviors. 3. Apply knowledge and skills related to health promotion, disease prevention, and health maintenance.

For additional activities and information visit <https://colosph.cuanschutz.edu/school-wellness>



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SCHOOL & COMMUNITY WELLNESS PROGRAM

Protein and energy Family Letter

Getting enough protein increases your energy, helps muscle growth, and improves your bone health. Some ways to get the protein our bodies need:

- Eat eggs for breakfast or add eggs to salads and sandwiches.



- Make a snack mix with nuts such as peanuts, almonds, and walnuts.



- Keep canned fish or chicken in your pantry for quick meals.



- Add lentils to soups, salads, and pasta sauce.



Protein is an important part of your diet. Protein can be found in meat, poultry and seafood, and also in plant-based foods such as legumes, nuts, and seeds.

Grab and Go Brain Food!

Feed your brain and body with nutritious trail mix!



Ingredients

Dried Cranberries

Dried apples

Whole grain cereal

Shelled sunflower seeds (lean protein)



- 1.) Open and empty all materials into a common bowl.
- 2.) Mix and serve, ENJOY!

Boost your energy in just minutes!

Feeling tired or sluggish? Add MVPA to your day!

- Take a walk after meals.
- Take a break to do jumping jacks, high knees, or jump squats.
- Play tag with your kids before dinner.
- Sprint up a flight of stairs.



Resources



Supplemental
Nutrition
Assistance
Program



**HUNGER
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Rocky Mountain
Prevention Research Center
colorado school of public health



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PROGRAMA DE BIENESTAR ESCOLAR Y COMUNITARIO

Proteína y energía

Carta para la familia

Consumir suficiente proteína aumenta la energía, ayuda al crecimiento muscular y mejora la salud de los huesos.

Algunas formas de obtener la proteína que nuestro cuerpo necesita:

- Coma huevos en el desayuno o agréguelos a las ensaladas y sándwiches.



- Prepare una merienda mezclando frutos secos como cacahuates, almendras y nueces.



- Tenga pescado o pollo enlatado en su despensa para comidas rápidas.



- Agregue lentejas a sopas, ensaladas y salsa para pastas.



Las proteínas son una parte importante de la dieta. Se encuentran en la carne, las aves y en los mariscos, y también en alimentos de origen vegetal como las legumbres, los frutos secos y las semillas.

¡Comida para el cerebro lista para llevar!

¡Alimente su cerebro y su cuerpo con una mezcla nutritiva de frutos secos!

Ingredientes

Arándanos rojos secos

Manzanas secas

Granos integrales

Semillas de girasol peladas (proteína magra)



1.) Ponga todos los ingredientes en un recipiente común.

2.) Mezcle y sívalo. ¡DISFRÚTELO!

¡Aumente su energía en tan solo unos minutos!

¿Se siente cansado o con pereza? ¡Agregue AFMV a su día!

- Salga a caminar después de las comidas.
- Tómese un descanso para hacer saltos de tijera, elevaciones de rodillas o sentadillas con salto.
- Juegue al escondite con sus hijos antes de la cena.
- Suba corriendo un tramo de escaleras.



Recursos

Rocky Mountain
Prevention Research Center
colorado school of public health



**HUNGER
FREE COLORADO**



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Division of Food & Energy Assistance

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