LEsson Plan: Powerful Plant Proteins

Grades: K-5

Designed by:
SuperKids Nutrition Inc. in partnership with the American Institute for Cancer Research.

Time Allotted for the Lesson:
Approximately 45 minutes

Instructional Objectives:

Nutrition Information:
✔ Students will state the health benefits of lean protein and plant-based protein.
✔ Students will learn about protein’s role in the body and be able to identify at least 3 plant-based protein alternatives to meat protein.
✔ Students will identify plant-based proteins and be able to describe their benefits.

Self-assessment:
✔ Students will identify their favorite lean animal protein and plant-based protein and do a self-assessment of what percent of their dinners are from plant vs. animal protein.

Health Behavior Change:
✔ Students will be able to name at least one benefit of plant-based proteins and understand how they contribute to their overall health.
✔ Students will be able to taste a plant-based protein salad in order to increase the likelihood of incorporating more plant-based proteins into their diet at home.

Culinary Skills:
✔ Students will identify the different beneficial ingredients in the recipe and develop a taste for them.
✔ Students will learn that they can easily perform a “no cooking required” recipe like Colorful Southwestern Bean Salad at home, rather than buying a pre-made version at a restaurant or supermarket.

Overview:
The lesson will focus on the benefits of eating lean animal protein and plant-based proteins for children to learn how protein foods not only help grow a healthy body, but also shield us from cancer and other diseases. Students will learn which animal foods and plant foods are considered protein sources. They will also learn about the various components these foods have that enable them to grow strong and healthy. Afterwards, students will have the opportunity to prepare a Colorful Southwestern Bean Salad recipe to emphasize the spectrum of protective phytochemicals (plant compounds) offered by plant-based proteins.
✔ Students will learn how to prepare **Colorful Southwestern Bean Salad**.

**Self-efficacy/Action plan:**
✔ Students will receive supplemental material to track their progress of eating more plant-based proteins in place of animal-based proteins at meals a few times a week.

**Preparation:**
✔ Review equipment inventory, make sure oven is working and buy any necessary tools.
✔ Make copies of the handouts and recipes for the students.
✔ Create a grocery list.
✔ Purchase all ingredients about one day in advance.
✔ Fill out form below for organization.

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**Materials/Resources Needed**
✔ Computer and projector, to project Internet images
✔ Internet accessibility
✔ Handouts
✔ The **Colorful Southwestern Bean Salad** 2-page recipe handout
✔ The Super Crew Powerful Plant Protein Tracker

### Southwestern Bean Salad: Grocery List

**Ingredients (serves approximately 6 children)**

- 1 can (about 15 oz.) black beans
- 1 cup canned corn
- 3/4 cup mild tomato salsa
- 1 cup chopped green, red or yellow bell peppers
- 1 cup chopped carrots

### Southwestern Bean Salad: Equipment List

- Large salad bowl
- Can opener
- Strainer or colander
- Mixing spoon
- Knife
- Plates
- Napkins
- Oven

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Instructional Procedures

Engage your audience!

1. **Begin the lesson by saying that we are going to make a Colorful Southwestern Bean Salad and introduce the Super Crew Kids.**
   - The Super Crew gets their super powers from their favorite healthy foods.
   - Eating lean protein and including plant-based proteins can make you healthy and give you a lot of energy like the Super Crew.
   - Briefly explain that protein helps build and repair muscle, skin and other important cells in your body. Ask the class to name 2 things protein does in the body.

2. **Briefly discuss the ingredients in the recipe. Explain that what they eat now impacts their health as they grow. Lots of the foods in the Colorful Southwestern Bean Salad have super powers that help you grow strong and healthy and prevent cancer too!**
   - Discuss the super powers of a plant-based protein like black beans: Beans are a great source of protein and fiber plus have fight-o-chemicals, which help you look and feel your best. Fiber is good for your digestive system, helps protect against cancer (especially colon cancer), keeps cholesterol, a fat in your blood, from getting too high and helps keep your blood sugar balanced — so you have energy through the day.
   - Discuss the super powers of yellow foods like corn: Corn is a whole grain with what the Super Crew calls fight-o-chemicals (phytochemicals), which are important to fight off cancer, keep you from getting sick and keep your heart healthy. Corn is especially good for your eyes too! Discuss the power of plants using: [http://www.superkidsnutrition.com/sckids/plant-power.php](http://www.superkidsnutrition.com/sckids/plant-power.php).
   - Discuss the super powers of plant-based proteins in general: Plant-based proteins are important because they contain compounds that protect our DNA. **Our DNA provides a list of instructions that tells the cells in our bodies what to do.** We want to make sure our DNA tells our body to do the right things! By protecting our DNA, we slow down aging, prevent cancer, heart disease and diabetes. But most of all, these foods help keep us looking and feeling our best!
   - Discuss the super powers of orange foods like carrots, one of Super Crew kid Andy's favorite foods: [http://www.superkidsnutrition.com/sckids/andy-foods6.php#lift](http://www.superkidsnutrition.com/sckids/andy-foods6.php#lift). Carrots are a wonderful source of powerful nutrients called carotenoids, which protect both your eyes and your skin. One of these carotenoids is called beta-carotene, which turns into vitamin A in your body. Beta-carotene is super cool because it helps you see in the dark. Neat!
   - Discuss the super powers of red foods, like tomatoes, which are found in salsa: ([http://www.superkidsnutrition.com/sckids/body-powers-tom.php#lift](http://www.superkidsnutrition.com/sckids/body-powers-tom.php#lift)). Tomatoes are loaded with vitamin C and lycopene. Red foods are good for keeping your heart healthy and protecting your body from cancer.
   - Discuss the super powers of green foods, like green peppers ([http://www.superkidsnutrition.com/sckids/body-powers-jessie.php#lift](http://www.superkidsnutrition.com/sckids/body-powers-jessie.php#lift)): Green peppers have a ton of vitamin C, which helps maintain your immune system, healthy skin, and promotes strong bones. Ask who likes green soy beans, called “edamame,” mention how edamame, a green food, has plant power benefits and is also a great source of protein.
3. **Aim to get the majority of your animal protein from fish, poultry and lean meat, and be sure to include plant-based proteins too!** Substituting plant protein for animal protein a few times a week can help you be healthier now and when you’re older.

   - Instructor will describe the importance of eating a diet rich in lean animal protein and plant-based proteins. Just remember, only 1/3 of your plate or less should consist of animal protein. Pull up the online image of the New American Plate: [http://preventcancer.aicr.org/images/content/pagebuilder/20269.jpg](http://preventcancer.aicr.org/images/content/pagebuilder/20269.jpg).
   - No matter what kind of a diet you may follow, begin to redesign your plate so that at least 2/3 of it is made up of plant-based foods at each meal. When you eat more plants, like vegetables, legumes, beans, nuts and seeds, you help your body get many of the key nutrients it needs to function best.
   - Aim to eat a colorful variety of plants at each meal to ensure that you get the maximum number of nutrients possible and so that you’ll leave feeling satisfied by the all of the textures, tastes and flavors on your plate.

4. **Super Crew Tracker (Handout: Super Crew Powerful Plant Protein Tracker)**

   - Use the Super Crew Powerful Plant Protein Tracker activity to have students track the number of meatless meals they eat over the course of two weeks. Then encourage them to continue to use the tracker beyond the two-week challenge!

**How to Make a Colorful Southwestern Bean Salad**

5. **Instructor will introduce recipe and help children prepare this healthy snack.**

   a. Before cooking:
      - Explain: “Today we are going to make a recipe that has lots of plant-based proteins and super-power foods!”
      - Introduce the **Colorful Southwestern Bean Salad** recipe.
      - Review the different powers of each ingredient in the salad:
        - Black beans
        - Corn
        - Carrots
        - Tomatoes (in salsa)
        - Green, red or yellow bell peppers
      - Review hand washing:
        - Good hand washing habits are your first line of defense against the spread of many illnesses, not just the common cold.
        - Hand-washing can prevent the transfer of germs and foodborne illnesses.
        - Scrub hands with warm, soapy water for at least 15 seconds (per the CDC’s recommendation).
        - Don’t forget to wash your hands before, during and after cooking!
Colorful Southwestern Bean Salad Recipe

Ingredients:
- ✔ 1 can (about 15 oz.) no-salt-added black beans*
- ✔ 1 cup no-salt-added canned corn kernels
- ✔ 1 cup chopped green, red or yellow bell pepper
- ✔ 1 cup chopped carrot
- ✔ 3/4 cup mild tomato salsa
- ✔ 1 Tbsp. olive oil

*If you don’t have low-sodium beans, rinse regular beans thoroughly in a colander and drain to significantly decrease sodium content.

Makes 6 servings.

Directions
1. Open can of beans and can of corn.
2. Over the sink, empty both cans into a strainer and rinse thoroughly.
3. Let water drain from strainer.
4. Put beans and corn into a large salad bowl.
5. Add chopped pepper, chopped carrots, olive oil and salsa.
6. Mix together with a large spoon and serve.

Nutrition analysis per serving: 125 calories, 3 g total fat(<1 g saturated fat), 22 g carbohydrates, 6 g protein, 5 g dietary fiber, 211 mg sodium.

Goal Activity
Assessment:
Use the Super Crew Powerful Plant Protein Tracker to see how many meatless meals you consume over the course of one month.

Visit www.superkidsnutrition.com for more fun activities with the Super Crew.