

VOLUME I LESSON REVIEW

Lesson #1:

Topic: Feed Your Engine Proteins, Fats and Carbohydrates

Objective: Children learn that proteins, fats and carbohydrates are the foods that fuel our bodies.

Main Concepts:

Proteins, Fats and Carbohydrates (P, F, C). Our bodies are like a car in that we need fuel to perform. The car needs only one type of fuel to run but our bodies need a combination of three types of fuels to help it perform at its best.

Proteins- GROW foods. Help our muscles and tissues grow and also help our brains think clearly.

- Dairy protein foods: Milk, cheese, yogurt
- Meat protein: Chicken, fish, beef, lamb, turkey, pork
- Vegetable protein: beans, peas, lentils, nuts, seeds, soy, tofu

Fats- BRAIN foods. Help protein do their job and helps our brains function.

- Beneficial fats are those that help our bodies
- Avocado, nuts/seeds, butter, olive oil, dairy foods, fish
- Harmful fats are those that can cause disease
- Fried and deep fried foods
- Hydrogenated oils

Carbohydrates- GO foods. Give us quick and lasting energy.

- Whole grains found in breads, cereals, rice and pastas
- Fruits and vegetables

Class Activity:

1. Car Activity: Four volunteers are asked to pretend they are in a car. As they are driving, they run out of gas. They need to choose the right fuel to put in their car and can choose from regular, diesel or unleaded. They are asked what happens if they choose the wrong fuel? (car breaks down and sputters). What happens if they choose the correct fuel? (car runs smoothly)

2. STAR activity sheet: Students give examples of high-quality foods and write them down under the correct heading. Headings included: Proteins-animal/vegetable, Protein-dairy, Carbohydrates-whole grain, carbohydrates-fruit/vegetables, fat.

Lesson #2:

Topic: Feed Your Engine High-quality Fuels

Objective: Students will be able to identify the difference between a nutrient rich High Quality food and a highly-processed, Lower-quality food.

Main Concepts:

High Quality versus Low Quality. Our bodies are similar to a car engine in that it needs the right, high-quality fuel to perform at its best. Without the right HQ fuel our bodies may feel tired, sluggish and may even find it hard to concentrate.

High-quality foods: (HQ) foods are whole, minimally processed, closest to the source with few added ingredients.

- This means a food looks like it did when it came from nature. Example: An apple
- Minimally processed foods retain all, or most, of their original nutritional value. (vitamins, minerals and fiber)
- We need the original nutrients found in foods because that's what feeds our cells.
- When we feed our cells proper nutrients our bodies stay healthier because our immune system stays strong.

Low-quality foods: (LQ) foods that are processed and far from the source.

- This means a food has changed a lot from its original source.
- Processed means changing a food from its original source, usually by taking something away
- Highly processed foods will have a long list of ingredients

HQ to LQ: An apple is an example of a whole close to the source food. It looks like it did when it was on the tree.

- Apples can be processed into other foods such as apple sauce and apple juice. These foods are minimally processed, have a short list of ingredients and are still HQ foods.
- Foods that come from apples that are highly processed with long list of ingredients include apple flavored granola bars and cereals....These foods are lower quality.

Class Activity:

1. **Matching activity (3rd Grade):** Draw a line from the lower-quality food to the higher-quality food choice (ie: French fries to baked potato)
2. **Shopping Activity (4th and 5th Grades):** Choose foods from a word bank and place them in the high quality food cart or low quality food cart.

Lesson #3:

Topic: Know What is in Your Fuel – Food Investigators

Objective: Students will learn to analyze the Nutrition Facts Label and Ingredient List on packaged foods to identify High-quality foods.

Main Concepts:

The Nutrition Facts Label and Ingredient List are tools you can use to find out what is in your food

Ingredient List: lists all the ingredients the manufacturer put in the food.

- Ingredients are listed from the greatest to the least amount by weight.
- The fewer the ingredients the better. The more ingredients a food has the more processed it is.
- You should be able to recognize the ingredients on the list.

Nutrition Facts Label: lists the nutritional value of the food.

- The serving size is given which is the suggested amount that should be eaten.
- The grams (g) of Protein, Fat and Carbohydrates are listed.
- Fiber is listed in grams (g). A higher-quality food should have a minimum of 3g of fiber.
- Sugars are listed in (g)

Class Activity:

- I. Food Investigator Activity:** Students compared 2 wheat breads and 2 fruit spreads by looking at the Nutrition Facts Label and Ingredient List. After analyzing the 2 products they picked the higher-quality bread and fruit spread.

Lesson #4:

Topic: Start Your Engines: High-quality Breakfast

Objective: Students learn that high-quality breakfasts help them think and perform at their best, what constitutes a higher-quality breakfast and how to improve common breakfast.

Main Concepts:

Breakfast is the most important meal of the day.

- Breakfast feeds the brain and helps you perform better in school.
- Breakfast gives you energy.
- Eating a HQ breakfast in the morning can improve your mood.

What makes a High-quality Breakfast?

- Include HQ Proteins, Fats and Carbohydrates.
- HQ Proteins include ham, sausage and beans.
- HQ Fats include butter, peanut butter, almond butter, cheese and avocado.
- HQ Carbohydrates include whole grain breads or cereals and fresh fruits and vegetables.
- Breakfast cereals should be low in added sugars and high in fiber.

Class Activity:

- 1. Sugar Activity:** One student was asked to scoop out 16 g of sugar and 32 g of sugar to demonstrate how much sugar is in certain breakfast cereals.
- 2. Cereal Activity:** Students compared 2 cereals and determined which one was a higher-quality breakfast choice by comparing the labels.
- 3. Higher Quality Breakfast Activity:** 4 lower-quality breakfasts were given and students had to identify why each breakfast was lower quality and change it into a higher-quality breakfast.

Lesson #5:

Topic: Heed Your Warning Lights

Objective: Students will identify signs of feeling satisfied rather than full and will understand the importance of listening to their bodies; students will understand what a food allergy or sensitivity is and what the food alternatives are.

Main Concepts:

Bodies' Signals

- Your body gives you signals when you're famished, hungry, satisfied and have eaten too much.
- Eat when you're hungry. Don't wait until you're famished because then you may eat too fast and overeat.
- Stop eating when you are satisfied. Don't wait until you are so full you feel ill.
- Pay attention when you are eating. Avoid doing other activities while eating such as watching TV.

Food Allergies

- Food allergies occur when your immune system gets confused and creates antibodies against certain foods which cause the allergic reaction.
- Common food allergies include: dairy/lactose (milk products), gluten/celiac disease (wheat, oats, spelt and rye products), corn, soy, eggs, peanuts and tree nuts.
- Signs and Symptoms of food allergies may include: difficulty breathing, rashes, stuffy nose, headache, nausea/vomiting, diarrhea and bloating.

Class Activity:

1. **Hunger Scale:** Using words from a word bank you place words describing how you may feel at different points on the hunger scale. 1-Famished, 2-Hungry, 3-Satisfied, 4- ill/exploding.