Lesson #1: **Feed Your Engine Proteins, Fats and Carbohydrates**

Objective: Students who received GrowingGreat lessons in previous school year review concepts learned and play an interactive Review Game to reinforce concepts.

Classroom Lesson Outline:

1. Introduction *2 minutes*

2. Review *13 minutes*
   a. High-quality Proteins, Fats and Carbohydrates (P, F, Cs for short) are the fuels our body needs to perform at its best.
   b. Reading ingredient lists helps identify red flags
   c. Beneficial fats are great fuels for our brains
   d. Eating whole-grain foods gives us more nutrients and energy
   e. How advertising affects the foods we choose

3. Review Game *15 minutes*

4. Optional Food Sample *5 minutes*

📖 **Recommended Reading**

(For 4th and 5th grade docents)
• Volume 2 lesson review

(For all new docents)
• Animal, vegetable and dairy proteins
• Vegetable, fruit and grain carbohydrates
• Beneficial fats *by Linda Prout, MS*
• Fresh foods for each season

SCRIPT

Lesson #1:
Returning Students Review of Volume 2
and Challenge Game

Introduction

Hi, my name is_____and I will be your GrowingGreat Docent this year.

I will be teaching you a lot of great information in a short amount of time so I really need your cooperation.

📋 ***Docent Note: Review with students your expectations of their behavior***

Last year in GG we learned a lot about making healthy food choices. We learned:
1. High-quality Proteins, Fats and Carbohydrates (P, F, Cs for short) are the fuels our body needs to perform at its best.
2. Reading ingredient lists helps identify red flags
3. Beneficial fats are great fuels for our brains
4. Eating whole-grain foods gives us more nutrients and energy
5. How advertising affects the foods we choose

This year I will be teaching you new, exciting nutrition lessons.

Today's lesson is a review of what you learned last year in GrowingGreat. We will start by doing a quick review of some of the important points covered last year and then we'll see how much you remember when we play GrowingGreat Review Challenge.

📋 *Docent Note: This should be very interactive. Try and get the kids involved and talking but keep them on topic. Call on 2-3 kids when multiple answers are needed. After about 15 minutes move onto the Game even if you haven't covered the whole review.*

Question: Does anyone remember what three things make a food higher quality?
Answer: It is whole, closest-to-the-source, and minimally-processed.

Whole foods, close to their original source, look like they did when they came from nature. Eating higher quality foods helps our bodies perform and feel their best.

Remember the lesson we did last year? We talked about the whole orange, picked from the tree. It is whole and close to the source. We compared it to the orange soda that is very far from the source.

Question: What makes a food lower quality?
Answer: It has been highly processed and is far from its original source.

This means that the food has been changed a lot from its original state. A processed food has some, or all, of the nutrients removed.

I am going to name some lower quality foods and I want you to name a higher quality choice from the same source.

📋 *Docent note: accept anything that is a high-quality choice.*

Lower Quality   Higher Quality
Apple flavored breakfast bar   Apple, apple sauce
Orange soda   Orange juice, water
Potato chips   Baked crackers, tortilla chips, rice chips

We also talked about how our bodies have similar needs to cars. 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.

Question: Can anyone name the three fuels our bodies need? *(Use the term PFC if they need help)*
Answer: Proteins, Fats and Carbohydrates

Question: Can anyone name a high quality protein?
Answer: We learned about different types of proteins: Animal (Fresh fish, chicken beef, pork
                 or eggs) Vegetable protein (Beans, peas, lentils, tofu, nuts and seeds) and Dairy Protein
                 (Cheese, yogurt and milk)

Question: Can anyone name a high quality food that contains beneficial fat?
Answer: We learned that not all fat is bad for you and that fats that help you are called beneficial
                 fats. Examples are butter, avocado, olive oil, nuts and seeds, and some fish like salmon.

Question: Can someone name a high-quality carbohydrate?
Answer: We learned about different types of carbohydrates: Whole Grains (breads, cereals,
                 crackers, rice and pasta made with whole grains such as wheat or rice) Whole fruits
                 and vegetables.

We know it's best to have foods that are whole, close to their source and minimally processed,
but sometimes we grab a packaged food. Some packaged foods are processed more than others.
Higher-quality choices are those that are minimally processed with fewer added ingredients.

Question: Does anyone remember how we determine if a packaged food is minimally processed?
Answer: Read the ingredient list on the label.

Remember when we "busted" the labels of certain foods that claimed to be healthy but they had a long list of ingredients with a lot of "red flags?"

When reading labels we want to look for some Red Flags in the ingredient lists.

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Question: Does anyone remember what a Red Flag is?
Answer: A Red Flag is an added ingredient that can be harmful to our bodies.

Question: Last year we learned about 3 Red Flags. Can anyone name one?
Answer: Added sugars and high-fructose corn syrup, hydrogenated oils, artificial ingredients.

We learned there are a lot of different names for added sugars. Some different ones you might see are "ose" words: sucrose, fructose, maltose. Fruit juice/concentrates. High fructose corn syrup, honey, molasses.

Hydrogenated oils are man made oils that can clog up our arteries inside our bodies and can cause a lot of problems for us as we get older.

Question: What are some different types of foods that contain hydrogenated oils?
Answer: Margarine, candy, crackers, popcorn, peanut butter, snack foods, breads

We also learned that our bodies need some fat and the type of fat that helps us is called beneficial fat.

Question: What do beneficial fats do for our bodies?
Answer: Help us think clearly and concentrate, feel satisfied longer, is a long-lasting form of energy for our bodies, and helps keep our joints moving smoothly.

Some foods we find beneficial fats in are butter, olive oil, avocado, nuts and seeds.

Artificial ingredients are man made ingredients found in lower-quality foods. Artificial colors change the look, artificial flavors change the taste of the food and sweeteners make things sweeter than if just sugar was used.

Question: Who can name a food that contains artificial colors?
Answer: Candy, cereal bars, cereals, sports drinks, juice drinks, soda…

In another lesson last year we ground up whole grains in a coffee grinder to see what whole grain flour looks like.

Question: Who remembers what a grain is?
Answer: The seed part of a plant.

We looked at a stalk of wheat and inside the tops of this plant were the grains.

Question: Who can name a type of grain?
Answer: Wheat, oats, rice, barley, rye, corn and spelt.

When a grain is ground up it is called flour and you've probably used it to make homemade cookies or bread.

We looked at a diagram of a whole grain and saw that it has three different parts.

Question: Does anyone remember any of those parts?
Answer: Bran, Germ and Endosperm.

Flour that keeps all three of these parts is whole grain flour. Foods such as bread made with this type of flour are best for us to eat because it has all its fiber, vitamins and minerals.

Question: Who remembers which two parts of the grain are taken away to create white flour?
Answer: The bran and the germ are taken away and only the endosperm is left. The germ and the bran are the most important parts of the grain because they contain all the nutrients.

We also made our own advertisements to promote a fresh fruit or vegetable. We learned that companies use advertising to get you to buy their food.

Question: Where do we see advertisements?
Answer: TV, radio, billboards, internet, magazines, newspapers……

Question: Can anyone remember what different things advertisers use to get us to buy their products?
Answer: Gimmicks, give-a-ways, famous people, tag lines, characters, claims and catchy songs or jingles.

Many times an advertiser stretches the truth about a product to make it sound healthier than it actually is. You've learned to read labels and ingredient lists to decide if that advertiser is really telling the truth.

That was our quick review of last year's lessons. Now I am going to test your Nutrition IQ by playing the GrowingGreat Review Challenge Game.

Docent note: Use the instructions to set up your game on the white board; use the question and answer one-sheet; have fun.

Docent note: Show the Grill Me take-home flyer. Encourage students to share it with their parents.

GrowingGreat Review Challenge Game
INSTRUCTIONS

Set up game on white board

• Place review game category labels in a line on board, preferably in order of the answer sheet.

• Number under each category the point range 1, 2, 3, 4, 5.

• Erase the number under the appropriate category when it is answered correctly and the team earns that point amount.

Set up class

• Divide the students into groups (of approx. 5-6 kids each).

• Designate one student in each group to keep score during the game.

• Instruct students they will work together as a group.

• Docent calls on a group; they select their point level question – the higher the points, the harder the question.

• Using the question and answer sheet, docent gives group a question. The goal is to work together to come up with one answer to present as a group. The group has 10 seconds to come up with an answer or the next group gets a chance to answer.

• If the answer is correct that group is awarded points based on the point level of the question. If incorrect, the group gets one more chance to answer, but the second time it's only worth half the points. (So if it was a 5 point question you will only get 2-1/2 points).

• If the question isn't answered correctly after 2 tries it goes back up on the board.

• After a group is finished with one question it's the next team's turn.

• Play the game until all the questions have been answered or you run out of time.

• At the end of the game, the team with the most points wins. (However, emphasize that everyone did a great job!)

Lesson #1:
GrowingGreat Review Challenge Game Questions
from Volume 2

Docent Note: Please feel free to give bonus points for clever answers or if more (correct) information is given than asked for.

Advertising

1. **Q.** T or F: You should always believe what they tell you in advertisements.
    A. F – Sometimes companies stretch the truth to get you to buy their product.

2. **Q.** Name a highly processed food that you have seen advertised in a commercial.
    A. Cereals, fast food, soda, sports drinks, candy…….

3. **Q.** Name two places you will see advertisements.
    A. TV, magazines, newspapers, billboards, radio and the internet

4. **Q.** Name two things advertisers use to catch your attention.
    A. Give-a-ways, Jingles, famous people, catchy tag lines, funny characters and claims

5. **Q.** Make up a tag line for a healthy fruit or vegetable.
    A. Accept any good attempt at a tag line.

Whole Grains

1. **Q.** What do you call whole grains that have been ground up into a powder?
    A. Flour.

2. **Q.** What color is whole wheat flour?
    A. Brown

3. **Q.** Besides wheat, name 2 other types of grains we eat.
    A. Oats, rice, barley, rye, corn and spelt.

4. **Q.** All grains have 3 parts. Can you name two of them?
    A. Bran, germ and endosperm.

5. **Q.** Why do we want to eat whole grain foods more often than highly-processed white flour foods?
    A. Whole grains have vitamins and minerals,and also fiber, which makes us feel full longer and gives us longer-lasting energy.

Beneficial Fats

1. **Q.** T or F: All fats are bad for our bodies.
    A. F – Some fats are beneficial.

2. **Q.** Are the fats found in fried food, fast food, candy and processed food usually considered harmful or beneficial?
    A. Harmful.

3. **Q.** What processed fat is added to a lot of packaged foods to make them last longer?
    A. Hydrogenated oil or partially hydrogenated oil.

4. **Q.** Name one thing that beneficial fats do for our bodies?
    A. Help us think clearly, feel satisfied longer, give us a longer lasting form of energy and help keep our joints moving smoothly.

5. **Q.** What foods containing a beneficial fat could you have for a snack?
    A. Nuts, seeds, avocado, olives, dairy (cheese), plain yogurt or a fruit smoothie

Label Busters

1. **Q.** If a cereal bar's label says "healthy", what should you read to make sure this is true?
    A. The ingredient list.

2. **Q.** Name one of the three red flags we should look for on a food ingredient list.
    A. Artificial ingredients, hydrogenated/partially hydrogenated oils, and added sugars (HFCS)

3. **Q.** Name two other words for sugar you might find on a label.
    A. Honey, "ose" words, fruit and juice concentrates, syrup, molasses and high-fructose corn syrup.

4. **Q.** High Fructose Corn Syrup is another word for what?
    A. Sugar

5   **Q.** Can you name two artificial ingredients added to processed food?
    A. Artificial color, artificial sweeteners, artificial flavors.

High Quality Foods

1. **Q.** What does GrowingGreat call a food that is whole, closest to the source and minimally processed?   If a food is whole, closest to the source and unprocessed, it is?
    A. High Quality food

2. **Q.** A salad with whole fresh vegetables is a HQ or LQ food choice?
    A. High Quality

3. **Q.** Which of the following foods is the higher quality choice? Potato chips, French fries, or baked potato with butter
    A. Baked potato with butter

4. **Q.** What does processed mean?
    A. Changing a food, usually by taking something away

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5.   **Q.** Change this to a higher-quality sandwich: Bologna sandwich on white bread with American cheese.

        A. Any fresh meat like turkey or chicken on whole grain bread, real cheese like cheddar or jack, and add some vegetables like lettuce or tomato.

Miscellaneous

1.   **Q.** GrowingGreat teaches you about?

        A. Nutrition, making healthy food choices

2.   **Q.** T or F - You should ALWAYS avoid low-quality foods.

        A. F - But you should choose higher-quality foods more often than lower-quality foods.

3.   **Q.** Why do you think it is important to make healthier food choices?

        A. Accept appropriate answer

4.   **Q.** Chicken, fish and steak belong to what fuel group? (P, F or C)

        A. Protein, Animal

5.   **Q.** What are 2 things you learned in GG last year?

        A. Accept anything they were taught.