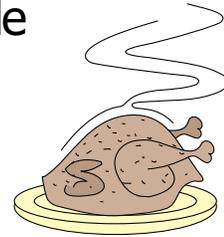
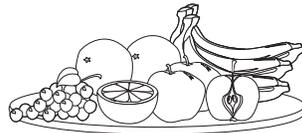


Elementary School Nutrition Education:

A Teaching Curriculum for First Grade



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American Medical
Student Association
Task Force on
Nutrition and Preventive Medicine

**Elementary School
Nutrition Education:
A Teaching Curriculum for First Grade**

by

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Introduction

This book contains a series of lesson plans developed by Andrew Tershakovec, M.D., at The Children's Hospital of Philadelphia and the University of Pennsylvania School of Medicine. It is intended to be used for teaching nutrition to first graders in an inner-city elementary school. These lesson plans have been used successfully for the last several years by Dr. Tershakovec and University of Pennsylvania first-year medical students.

The purpose of the program is to influence youngsters to think about what they are eating and to make wise choices. The children are introduced to the concepts of major components of food (proteins, fats and carbohydrates), to the food pyramid and a balanced diet and to the relationship of exercise to health. They are even taught how to read food labels. Also included in this book is a general introduction to teaching provided by Dr. Tershakovec.

At the University of Pennsylvania, medical students have volunteered to teach and have then been teamed up in groups of two or three and assigned individual classrooms to which they teach the 13 lessons over a period of several months, generally from January to April. Each lesson should last about half an hour.

If you decide to implement this program at your medical school, I would recommend finding an advisor/mentor who has some expertise in elementary education. It will be necessary to establish a relationship with the principal and faculty members and—if possible—the school nurse of a local elementary school to support the project. The lesson plans are not written in stone, but are guidelines that have proven to be successful. Some of the props may be difficult to construct, so you will have to be creative.

In general, the medical students who have participated in the program have found it very rewarding. It is amazing how much the children pick up and remember.

Good luck!

Bill Resnick
University of Pennsylvania School of Medicine
Class of 1997

General Suggestions and Guidelines

- Always **introduce yourself** (name, who you are, what you do and why you are there) at the beginning of each session. Write your name on the board. Use these introductions to teach the children a little about who you are and what it takes to get to medical school, etc.
- **Don't be too formal or informal.** You need to decide how you want the children to address you. Do not use your first name only. Always address school personnel by Mr., Ms., Dr., etc.
- **Be interactive.** At the beginning of each class, ask the children who you are and what you do and why you are there. Also review previously covered material. This serves two purposes: 1) it reinforces that some expectations are being placed on the children to learn and remember what you are discussing, and 2) it lets you see how your teaching is being perceived. Sometimes what you are trying to say sounds very different to the children. This will allow you to adjust to what they have picked up or still need to review.
- **Do not be afraid to bore the children with repetition.** They need to hear these concepts more than once.
- **Challenge the children.** The novelty of knowing everything will wear off quickly.
- Point out when children give you the wrong answer, but **try to find something positive in what they do tell you**, even if it is wrong. But never lie or give false praise.
- **Give them some successes**, and acknowledge and praise those successes simply. Don't make a big deal out of it, unless it is a big deal. Challenging them too much without any success will frustrate them.
- You need to **address every child in the room at his/her own level.** Don't play to the one who knows all the answers, but don't also bore the class because one child doesn't seem to understand anything or is not paying attention.
- Some children will raise their hands to answer a question and have no idea what to say. In fact, you will be surprised how many do this. Try to deal with this in a non-judgmental fashion.
- Be careful to not always pick on the same children who always know the answers.
- **Try to develop a relationship with each child in the room.** Use their names (name tags are usually on the desks). Given time you will see some very quiet or seemingly slow kids really warm to you. Actually, seeing a light bulb light up over a few heads when it all starts to make sense is very fulfilling.
- **Don't be afraid to backtrack.** Sometimes you may push the kids too far and they just won't understand anything you are saying/doing. You may need to step back, regroup and start all over.
- **Be flexible.** You may cover more or less than you plan at each lesson. Be prepared to go further if the children are ready.
- **Physically work the room.** This will help you interact with all the children. Physically get down to their level when appropriate.
- **Discipline**—Don't be afraid to put the children in line, but try to do this as a group. Try to steer actual individual problems to the teacher for discipline.
- **Use the teachers as a resource** and ask for help when you need it. Some teachers are concerned about how much work you will add to their day. Make it clear you plan on doing everything, but that their professional guidance/input would be helpful and welcomed.
- **Attention span**—Remember, at this age the children can only be expected to pay attention for a certain amount of time. Over 30-35 minutes at one stretch is pushing it (and some say 20 minutes is the limit). You will get a feel for the limits, though they do change somewhat from time to time.

- **Crazy days**—The kids will have some crazy days where nothing you do will work or you cannot get them to pay attention to anything. Don't take these personally. Try to learn from them and just try again next time.
- **Be creative.** The lesson plans are meant as guidelines. If you have any new ideas, please discuss them with your program advisor. Remember, this is a developing program. Trying out new ideas and approaches is strongly supported.
- **Acknowledge any efforts or help** from teachers and other school personnel both in person and to the class.

Lesson Outline

Lesson 1

- Define nutrition, energy and strength.
- Identify parallels between the body and an engine, and food and engine fuel.
- Identify body's needs for energy.
- Define bad nutrition and how bad nutrition makes you feel.
- End each session with vocabulary words.

Lessons 2 & 3

- Begin each session with review of last session.
- Show food as building block using Duplos™ models.
- Show digestion and utilization of building blocks by the body.
- Identify types of building blocks (carbohydrate, protein, fat).
- Identify specific function of different building blocks (e.g., protein=growth, carbohydrate=energy, fat=piggyback).
- Introduce vitamins and minerals with examples using building block model.
- Show how eating the wrong foods can impede body function by providing wrong building block.

Lessons 4, 5 & 6

- Introduce four food groups.
- Practice categorizing food in appropriate group.
- Discuss nutrition related illnesses present in family and acquaintances.

Lesson 7

- Hold contest reviewing material from lessons 1-6.

Lessons 8, 9 & 10

- Develop model of body with children playing parts of body demonstrating influence of nutrition on development of atherosclerosis and other deleterious effects on body.
- Discuss sources of fat and cholesterol.

Lessons 11 & 12

- Review components of food by reading food labels.

Lesson 13

- Review session with parents.

Description of Props

The following is a description of the props which are listed under the MATERIALS section at the beginning of each lesson plan. Materials which are self-explanatory are not included here.

1. Food models

These are colorful pictures of various foods on laminated 4" x 6" cardboard cards, each with a strip of Velcro on the back. Be creative, making sure to supply a variety of foods from different food groups.

2. Poster of car engine

Children may not quite get the concept of comparing their bodies to a car. Feel free to improvise here.

3. Legos™/Duplos™

We actually use Duplos™, which are like large Legos™. Three colors are used, one for protein, one for fats and one for carbohydrates. Try to be consistent from week to week.

4. Food group posters

Six large cardboard posters, each with a food group written in large print at the top (i.e., GRAINS, FRUITS, VEGETABLES, MILK AND CHEESE, MEAT, FATS AND SWEETS) with several strips of Velcro to which the food models can adhere.

5. Food pyramid

A stackable painted wooden model with each food group written on a different level with a panel on each that can be opened to reveal slots into which the food models slide. This will be the most difficult prop to reproduce, or you could come up with a reasonable alternative. Two dimensional food pyramid models are commercially available. Look in education catalogs.

6. Poster of heart with body and blood vessels

This is a poster of a child that is available free from the American Heart Association. We cut the heads out of our posters (since the child pictured is white and our children were all African American) and let one of the children put his or her head through it.

7. Body model props

Five large cardboard name tags—on strings to fit over heads—with HEART, MOUTH, LEG, HEAD and STOMACH written on them.

8. Red smocks

Large rectangular pieces of red fabric with holes cut in the middles to put heads through (like ponchos). Make a few of these.

9. White smocks

Same idea as above.

Lesson I

SUBJECT: Nutrition/Health, 1st Grade

THEME: Introduction to Nutrition Program

DURATION: 15-20 minutes

OBJECTIVES: Introduce medical student and program. Introduce nutrition, energy, growth and the correlation between these.

MATERIALS: Food models
Poster of car engine
Children's/student's hand and foot
Chalkboard
Book bag filled with heavy books

STARTING THE LESSON

Transition: Introduce yourself and explain that you are a medical student.

Motivator: We are going to start a program to teach you how to help keep you and your family healthy by eating the right foods and to teach you how to make the best choices for yourself.

Organizer: Food models
Poster of car engine
Children's/instructors hand/foot

LESSON SEQUENCE

Teacher Actions:

Ask—What is nutriiion?

Steer discussion to understand that nutrition tells us how to eat and use food to be healthy. Be careful when you solicit answers to not allow the children to go on tangents or to ramble on. Take charge to steer the discussions towards the correct answers

Why do we need food?

Steer discussion to concepts:

- energy/strength

Student Actions:

Students describe their vision of nutrition.

Students describe body's use of food.

Why do we need energy and strength?

- walk
 - run
 - breath
 - keep heart beating
 - strength to lift things
 - read
 - see
 - learn
 - think
- } You don't need to move to need energy/food.

What happens if you do not eat? (Be prepared for the children to say you will die.)

- you're hungry
- you have less energy
- it is harder to learn
- you fall asleep

Body is like an engine.

- show poster
- gasoline is like food
- engine breathes like we do

What happens when car runs out of gas?

What happens when you don't eat?

But remember:

A car can't run on food and people can't run on gas, so don't drink gas.

What do you do that a car cannot?

- grow, think, learn

Compare your hand to children's.

How did your hand get so big?

- food helped me grow

Review—Food helps us:

- grow
- gives us strength/energy

What do we need this for?

This is nutrition.

Good nutrition gives us all these things.

Students give answers.

Have students take deep breath together, feel chest move in and out.

Have students feel heart beating.

Students describe what happens if they do not eat.

Have students describe similarities between body and engine, and gasoline for the car and food for people.

Discuss differences.

Volunteer from class—Kneel down to child's level and compare your hand size to child's. Use multiple volunteers. Discuss how good food makes hand grow.

Have children repeat lesson with your prompts. Have students repeat why we need strength and energy.

Bad nutrition—if don't eat:

- makes you weak
- you fall asleep
- have trouble working
- have trouble thinking
- have problems growing

So it is important to eat breakfast each morning so you can learn and pay attention in school. Ask—
How many children ate breakfast today?

Good nutrition is eating the right amount of food.

Eating too much food makes you:

- weak, tired, fall asleep
- have problems working
(Point out that these symptoms are the same if you eat too much or too little.)
- put on extra weight
- then have to work to carry weight with you
- demonstrate how hard it would be to carry a book bag filled with books everywhere you go.

Get a volunteer to carry the book bag and have them describe how hard it is.

Good nutrition is eating enough and not too much.

Review what happens if do not eat.

Suggest what happens if eat too much.

Volunteer carries heavy book bag around the classroom.

END OF LESSON

Closure: Over next several weeks we will learn how to use food, how to eat the right foods, and how to work to stay healthy.

Optional activities: Bring in a stethoscope for this lesson or later to have the children listen to their hearts beating.

Vocabulary list to be incorporated into other lessons this week:

nutrition
energy
strength
growth

Lesson II

SUBJECT: Nutrition/Health, 1st Grade

THEME: Make-up of Food

DURATION: 30 minutes

OBJECTIVES: Food is made up of building blocks. There are 3 main building blocks: protein, carbohydrate and fat. The body breaks up the food into these building blocks to use it.

MATERIALS: Duplos™—one solid color block; one long, single file, solid color “bone”;
one multicolor block (prepare the Duplos™ pieces in advance)
Food models
Chalkboard

STARTING THE LESSON:

Transition: Re-introduce yourself.
Review that you are a medical student.
Ask children what you will be when you finish school.
Ask how many of them have gone to the doctor before.

Motivator: We will learn today how your body uses the food we eat.

Review last lesson: Ask children—What is nutrition? (nutrition tells us how to eat and use the food we eat to be healthy).

What does food give us? (energy, strength)

What does energy allow us to do? (walk, run, breath, heart beat, lift things, see)

What makes a car move? (energy, gasoline)

People need energy. (food)

How are cars and people different? (learning, growth)

Food helps us be our best. (to grow and learn)

Reinforce importance of eating breakfast. (so you can learn in school)

What happens if you don't eat enough or eat too much? (you are weak, problems staying awake, problems thinking, extra weight)

Organizer: Today we will see how we use food.

LESSON SEQUENCE:

Teacher Actions:

Take a group of Duplos™ joined together.

This is a piece of food.

What happens when you eat food?

First you chew it.

Break up Duplos™ to smaller pieces.
(Hold Duplos™ in front of you, slowly manipulate and pause to describe you are doing.)

After you chew food, what do you do?

Show Duplos™ pieces going down neck, chest and into stomach.

Show in stomach, Duplos™ pieces (food) are broken up into individual pieces.

These are building blocks.

What does your body do with the building blocks?

Compare your forearm to child's forearm (hold side by side).

Show long Duplos™ block— compare to child's forearm.

Show how building blocks attach to block and make it grow.

Ask—

So how does your arm grow to be longer?

Describe 3 types of building blocks.

- protein
 - carbohydrate
 - fat
- } write on board

All building blocks do different things.

Student Actions:

Students describe how you chew food to break it up.

Students describe how you swallow and food goes into stomach.

Volunteer from class.

Children describe how building blocks attach to bone and make arm grow.

Children repeat names of building blocks.

Write on board:

- Protein—growth
- Carbohydrate—energy
- Fat—piggybank

As write this on board, explain that protein helps you grow.

Carbohydrates give you energy.

Fat helps you if you do not eat for a while, lets you take something out of your piggybank so you do not get too weak.

(One additional way to reinforce this is to have the children “act out” growth and energy. For example, for growth have them crouch down, and slowly stand lifting their hands above their heads while saying they are “groooowing.” For energy, they can run in place. Be careful that this does not get out of hand. There is no easy movement to describe the piggybank. Also, the children tend to remember this one as they think it is funny.)

Foods can be mostly one type of building block, or they can have all the different building blocks.

Show food model with picture of meat.

Explain that meat is mostly protein, but what is this white part?

Show mixed Duplos™ block. Show how it contains more than one type of building block.

Review:

What happens with:

- chewing? (food breaks up into smaller pieces)
- swallowing? (pieces go into stomach)
- in stomach? (these pieces are broken up into building blocks)

Left with individual building blocks.

What are the 3 types of building blocks?
What is protein for? carbohydrate? fat?
(Emphasize growth/energy/piggybank.)

Children mime growth and energy.

Children answer fat.

Children review lesson with prompting.

So protein can go to your arm and help it grow.

Carbohydrate can go to your leg to give it energy so you can run or walk.

Fat can go to your piggybank and save energy for later.

NOTE:

THE CONCEPT OF THE BUILDING BLOCKS IS VERY IMPORTANT. THE NEXT TWO LESSONS WILL BEGIN WITH A REVIEW OF THE BUILDING BLOCKS. MAKE SURE THE CHILDREN HAVE A BASIC UNDERSTANDING OF THIS MATERIAL. IF NECESSARY, DEVOTE AN ADDITIONAL LESSON TO THIS TOPIC ONLY.

END OF LESSON:

Closure: Next time we will learn how to get the right amount of building blocks so your arm can grow when it wants to, your leg can have energy to walk when it wants it, your eyes can have energy to read when they want to and your piggybank is not empty when you have not eaten in some time.

Vocabulary: protein
fat
carbohydrates
stomach
building blocks

Lesson III

SUBJECT: Nutrition/Health, 1st Grade

THEME: Food Building Blocks and How Your Body Uses Them

DURATION: 30 minutes

OBJECTIVES: Reinforce the basic concept of the three types of building blocks and their purpose.

MATERIALS: Food models
Duplos™—single color “bone”
One additional Duplos™ piece which will not fit into the bone piece
Chalkboard

STARTING THE LESSON:

Transition: How many of you ever went to the doctor? Why?
Discuss that you see a doctor when you are sick, but you also go to see a doctor to help keep you healthy, to keep from getting sick.

Motivator: Good nutrition can also help keep you from getting sick.

Organizer: Using Duplos™ to understand how your body uses food building blocks.

Review last lesson: Remember last week we talked about how you start to use the food you eat?

What happens when we chew food? (demonstrate with building blocks)

What happens after you swallow it and goes into your stomach? (demonstrate with building blocks)

What do the building blocks do?

How does your arm grow? (show Duplos™ stick growing—parallel to arm growing)

We said there are different types of building blocks.

Does anyone remember the three types of building blocks:

Write on board: (with prompting from children)

Carbohydrate, protein, fat

Does anyone remember what each of these building blocks is for?

Write next to each one as you review it:

Carbohydrate—energy

Protein—growth

Fat—piggybank

[May have volunteers pantomime the actions associated with energy and growth. Or ask them to show what happens when you eat carbohydrates (i.e., demonstrate something that you need energy for) or protein (pantomime growth). Or pantomime an action, and ask which building block you need for this.]

What happens if we don't get enough carbohydrate building blocks?

What happens if we don't have enough energy?

What happens if we don't have enough protein building blocks?

What happens if you break your arm and you don't have enough protein building blocks?

(Demonstrate break in Duplos™ stick and show bone will not heal as well without protein building blocks; then show new protein building blocks repairing the break.)

What happens if you don't have enough building blocks in your piggybank?

What happens if you eat too much and fill up your piggybank too much?

- then have a lot of extra weight to carry around
- makes you tired (be careful if children laugh at “fat” people)

END OF LESSON:

Closure: Today we talked about how we use the food building blocks. Over this week, when you use energy, think of the carbohydrate building blocks you are using, and everytime someone tells you how big you are, think of the protein building blocks that help you grow.

Lesson IV

SUBJECT: Nutrition/Health, 1st Grade

THEME: Eating a Balanced Diet

DURATION: 30 minutes

OBJECTIVES: Reinforce the basic concept of the three types of building blocks and their purpose.

Different foods give you different building blocks.

You need to eat lots of different foods to make sure you get all the building blocks.

The different groups of foods are:

- (1) grains
- (2) vegetables
- (3) fruits
- (4) milk and cheese
- (5) meats

Fats and sweets are extra foods that do not belong to a special food group.

MATERIALS: Food models
Duplos™—single color “bone”
One additional Duplos™ piece which will not fit into the bone piece
Chalkboard

STARTING THE LESSON:

Transition: How many of you were ever seen by a nurse?

When and why?

What does a nurse do?

(Discuss how a nurse is part of a team that works with a doctor and your family to keep you healthy. Discuss how you are part of this team.)

Review last lesson: Review building block materials as needed.

Motivator: Today we are going to talk about making sure we have all the right building blocks to help us healthy.

Organizer: Learning how to categorize foods.

LESSON SEQUENCE:

Teacher Actions:

Show Duplos™ stick—explain that this is your arm.

Break it.

Get student volunteer.

Give broken pieces to volunteer. Give him/her the pieces that do not fit and ask to put arm together.

Explain that this child did not eat the correct building blocks, so arm cannot heal as quickly.

Now give volunteer correct building blocks.

Explain how good nutrition gave correct food, which gave correct building blocks. (Review chewing/stomach/building blocks sequence.)

So to get all the building blocks it is important to eat a balanced diet.

What happens when you lose your balance?

Optional: Pantomime how you can try to carry too much of something on one side and how it will pull you over so you lose your balance.

If you don't eat a balanced diet, you also don't have the strength to stand up and you fall over.

You will not have all the right building blocks.

To make sure we get all the building blocks we put foods into categories. Write categories on board (or use posters with headings).

Grain; fruits; vegetables; milk/cheese; meat. Fat and sweets are different.

Take out food models. Have student volunteers identify what each is. Have volunteers put food model on board under appropriate heading. Use only relatively "pure" foods for this first setting.

Student Actions:

Student volunteer.

Cannot repair break.

Have students discuss how you fall over.

Student volunteers.

Review:

Why do we need a balanced diet? What is a balanced diet.

What does a balanced diet give you?

All the food groups, which give you all the building blocks.

Review food groups. What are the different building blocks?

END OF LESSON:

Closure: We learned how to group foods to make sure we get a balanced diet to give US all the correct building blocks.

Your homework: Whenever you eat something, I want you to think what type of food you are eating. If you are not sure, write it down and ask me next week.

Otional activities: To help differentiate between fruits and vegetables, some children find it easier to use the following criteria:

- Fruits are commonly eaten for dessert and they are sweet.
- Vegetables are usually eaten as a side dish with dinner, and they are usually not sweet.
- Both fruits and vegetables make good snack food.

To help define the different food groups, the following may be helpful:

meat	}	provide: growth
milk		
		piggybank
grains	}	provide: energy helpers
fruits		
vegetables		

Vocabulary: balance
grain
vegetables
fruit
meat
milk

Lesson V

SUBJECT: Nutrition/Health, 1st Grade

THEME: Eating a Balanced Diet

DURATION: 30 minutes

OBJECTIVES: Learning to categorize foods into the groups: 1) grains, 2) fruits, 3) vegetables, 4) milk and cheese, 5) meats.

Fats and sweets are foods that taste good but do not give you all the right building blocks.

Recognizing that some foods are mixed and have parts from different food groups.

MATERIALS: Duplos™ mixed block, long “bone”

Chalkboard

Food models

Need to develop food model cards which show mixed foods, and individual cards for each individual part of the mixed food (i.e., for a sandwich you will need a sandwich card, and then individual bread, lettuce, tomato and meat cards)

Posters of food groups

STARTING THE LESSON:

Transition: How many of you know what a pediatrician is? (Explain that a pediatrician is a doctor who helps take care of children).

How many of you have been to a pediatrician?

Why do you go to see a pediatrician? (Lead discussion to acknowledge that you go see a doctor when you are sick, but also to help keep you healthy. Consider following suggestions to help guide discussion.)

Is it always fun to go see the doctor? (Acknowledge that it is not always fun, especially when you get some things that hurt, like a shot.)

Why do you go if it isn't always fun? (So you can help to stay healthy.)

Motivator: How many of you know who Michael Jordan is? (To be a good basketball player, he needs to practice. What we are doing is learning to practice to be healthy. By eating the right foods, having good nutrition, we are practicing to be healthy. We are part of the team to keep us healthy.)

Review last lesson: Food is made up of building blocks

Name the building blocks—carbohydrate, protein and fat. (Write on chalkboard.)

What do the building blocks do? (Write on board.)
carbohydrate- energy
protein- growth
fat-piggybank

What happens to your arm when it gets protein building blocks?
(It grows bigger. Demonstrate growth with child’s arm and Duplos™ bone.”)

What happens when your arm gets carbohydrate building blocks?
(It has energy—demonstrate something your arm needs energy for.)

What are other things you need energy for?
(Review activities requiring energy, such as seeing, learning, reading, heart beating. Demonstrate each one physically, if possible.)

What happens if your piggybank is empty?
(Won’t have energy in your piggybank when you need some extra.)

What happens if you eat too much?
(Your piggybank gets filled up and overflows. Then you have to carry all that extra weight around.)

What happens if your piggybank is too full?
(Then you have to carry around all that extra weight. It tires you out.)

Organizer: Learning to categorize foods. During Lesson IV, the class categorized “pure” foods. During this lesson, will try to expand to more mixed foods and to categorize the difference.

LESSON SEQUENCE:

Teacher Actions:

Place food group posters on chalkboard.

Review the food groups:

- grains
- fruits
- vegetables
- milk and cheese
- meat
- fat and sweets (put on a lower level to visually separate it from the others)

Student Actions:

Explain that fats and sweets taste good but do not give you building blocks for growth and to be healthy.

To reacquaint the children with this procedure, categorize two or three pure foods.

Choose relatively simple mixed foods (i.e., sandwich) from food model and have children discuss what is in the food. Have food model cards which breakdown into the individual components which make up the mixed food. Will need to initially identify the different components for the children, but slowly transfer to get them to identify the different food parts and categorize them. Progress to more complicated mixed foods.

Examples: sandwich—meat and bread
sandwich—meat, bread, lettuce, tomato
hamburger with bun—meat and bread
spaghetti and meat balls—noodles, tomatoes, meat
macaroni and cheese—noodles and cheese
cereal with milk
toast with butter—bread and butter
fried chicken—meat and oil

(INTRODUCE CONCEPT THAT ALL FRIED THINGS CONTAIN EXTRA FAT)

(Also be prepared that for fried chicken the children may say grain because of the coating. Acknowledge that yes, this is correct.)

peanut butter and jelly sandwich—peanut butter, fruit jelly and bread
grilled cheese—bread and cheese
french fries—potatoes and oil
ravioli—cheese, meat, tomatoes, noodles

Children identify individual parts of mixed foods and categorize each one.

END OF LESSON:

Closure: We learned that some foods are mixed and have parts from different food groups. We learned how to put each of these parts in the right food group to see if we are eating a balanced diet.

Your homework is to try to identify the different parts of the food you eat and to decide which food group each part belongs to.

Lesson VI

SUBJECT: Nutrition/Health, 1st Grade

THEME: Eating a Balanced Diet

DURATION: 30 minutes

OBJECTIVES: Learn to categorize foods into the groups: 1) grains, 2) fruits, 3) vegetables, 4) milk and cheese, 5) meats.

Fats and sweets do not belong to a food group.

Utilize the food pyramid to evaluate if you are eating a balanced diet.

MATERIALS: Chalkboard
Food models
Food group posters
Food pyramid

STARTING THE LESSON:

Transition: What do we call a doctor who helps take care of children?
(pediatrician)

How many of you have been to a pediatrician?

Do you ever go to the pediatrician when you are not sick?
Why? (so the doctor can help you to stay healthy)

Remember we said Michael Jordan practices to play basketball because it is his job? Your job is to practice to stay healthy.

How can we practice to stay healthy? (through good nutrition and by eating a balanced diet and getting all the right building blocks)

Good nutrition can help keep you healthy. Can bad nutrition make you sick? (yes)

Ask children to raise their hands to answer for this:

How many have someone in your family who had a heart attack?

How many have someone in your family who had a stroke?

How many have someone in your family who has high blood pressure (or high blood)?

These are all problems that bad nutrition can cause. So good nutrition can prevent these. Do you know what “prevent” means? (write the word “prevent” on chalkboard) It means to keep from happening. So the good nutrition we are learning about now may help keep you from getting sick when you grow up.

Motivator: Today we will learn to look at the foods you eat in a day and to decide if you are eating a balanced diet.

Review last lesson: To help us check if we are eating a balanced diet, we put the food into food groups. What are the five groups? (1) grains, 2) fruits, 3) vegetables, 4) milk and cheese, 5) meats. Fats and sweets are separate.

Have children categorize a few pure foods and then a few mixed foods to remind them how to categorize.

Organizer: Now that we know how to categorize food, we will use the food pyramid to help us see if we are eating a balanced diet.

LESSON SEQUENCE:

Teacher Actions:

Introduce the FOOD pyramid to the children. Show them that there is a section for each food group, and in each section there is a slot to put a food each time you eat it. Show an example: You eat an apple. You would take the apple food card and put it in the slot in the fruit section.

To see if you are eating a balanced diet: Describe how we look at what we eat in one day, categorize the foods, put them in the right section, and then see if that section is filled up or not

Ask: If one section is not filled up at the end of the day, are you eating a balanced diet? (no)

If one section has too many foods in it, it is over-filled. Are you eating a balanced diet? (no)

You want to fill up each section, but you do not want to over fill it.

Student Actions:

Put a sample menu for a day on the board.

Example:

Breakfast—	cereal (grain) milk eggs (milk)
Lunch—	roast beef sandwich (meat and grain) cookies (sweets) orange juice (fruit)
Snack—	peanut butter sandwich (meat and grain) orange juice
Dinner—	fried chicken (meat and oil) mashed potatoes with butter (vegetable and fat) peas (vegetable) cookies (sweets) milk

Total: grains—3
fruits—2
vegetables—2
milk and cheese—2
meat—4
sweets and fat—4

Have volunteers identify what food group(s) each food belongs with. Have the children who identify the correct food group place the food in the correct slot in the correct section.

Evaluation is that you need more grain, fruits and vegetables, and less meat and fats and sweets. Have children suggest ways to balance the diet.

Suggestions to help balance diet:

- substitute spaghetti with tomato sauce for fried chicken
- put a slice of tomato on the roast beef sandwich
- eat an apple for lunch instead of the cookies

Make substitutions and re-evaluate diet.

Put pyramid back together.

Have children evaluate each section, one at a time, to see if it is too full or partly empty.

END OF LESSON:

Closure: Today we learned how the food pyramid can help us make sure we are eating a balanced diet.

Your homework is to think about the food you eat to see what category it is in and try to think if you are eating food from all the categories.

Next week we will have you select what you want to eat and we will put it in the pyramid to see if it is balanced.

Vocabulary: prevent
pyramid

Lesson VII

SUBJECT: Nutrition/Health, 1st Grade

THEME: Eating a Balanced Diet

DURATION: 30 minutes

OBJECTIVES: Reinforce ability to categorize foods into the groups.

Reinforce ability to utilize the food pyramid to evaluate if you are eating a balanced diet.

MATERIALS: Chalkboard
Food models
Food group posters
Food pyramid

STARTING THE LESSON:

Transition: Have any of you gone to see the doctor when you were not sick?

Why did you go? (Lead the discussion to understand that you sometimes go for a check-up to help keep you healthy, and that you get vaccines to help keep you from getting sick.)

Do you like going to the doctor? Is it fun to go always? (Lead the discussion to understand it is not always fun, but it is better to get a shot that hurts for a few minutes instead of being sick for a few days.)

Remember we said Michael Jordan has to practice to keep playing basketball. What do you think he likes to do more, play a real basketball game with thousands of people watching or practice alone over and over to be good? (Lead the discussion to understand that practice is not always fun, but that Michael Jordan could not play as well if he did not practice.)

So we are learning how to practice to be healthy, by eating a balanced diet and having good nutrition.

Motivator: Today we will practice some more how to pick a balanced diet to help us stay healthy.

Review last lesson: Remember we learned how to put foods into their own group and then put them into the food pyramid to see if we are eating a balanced diet.

Organizer: Today we will pick out what you want to eat and see if it is a balanced diet. And if it isn't, we can learn how to make it a balanced diet.

LESSON SEQUENCE:

Teacher Actions:

Place the poster with all the food models attached on the chalkboard. Get a volunteer to pick a breakfast menu.

Guide the volunteers to select the foods, but do not select for them or unduly influence them to select a perfect diet. Try to make sure the diet they choose is generally realistic with respect to amount of food eaten.

Get another volunteer to pick a lunch.

Repeat with volunteers to select dinner and afternoon and nighttime snack.

Have each volunteer who selected the foods for each portion of the daily diet categorize the food they selected and place it into the food pyramid in the correct slot. Lead a discussion with the class to correctly categorize the foods if the volunteer needs help.

Review how balanced the diet is after all the foods have been categorized and placed into the food pyramid. Discuss with the class what there is too much of or what not enough.

Repeat with other selected menus as time allows.

Student Actions:

Volunteer selects the breakfast.

Volunteer selects the lunch.

Volunteers select dinner and snacks.

Volunteers, with help from fellow students, categorize the foods and place them in the food pyramid.

Class offers suggestions to balance the proposed diet.

END OF LESSON:

Closure: Today we practiced how to eat a balanced diet.

Your homework is to think about the foods you are eating at home to see if you are eating a balanced diet.

You can also talk to your family to help make sure that the foods everyone in your family is eating make up a balanced diet.

Lesson VIII

SUBJECT: Nutrition/Health, 1st Grade

THEME: Contest

DURATION: 30 minutes

OBJECTIVES: To review material covered to date and reinforce the major concepts.

MATERIALS: Apples, stickers or other prizes
All participants get something, and then something extra for the winning team
Each child needs a sheet of paper and pencil
Duplos™ pieces, prepared in advance

STARTING THE LESSON:

Transition: Today we are going to review what we have learned about nutrition so far.

Motivator: We are going to have contest to see how much you learned.

Organizer: Divide the class into teams of 4-6 children. Try to distribute the “ringers” fairly. Explain that you will ask a question, and you want each child to write the answer on their paper. If they do not know how to spell something, just write what you know, even if it is only one letter. If any one child on a team has the correct answer, that team will get a point. If anyone says the answer out loud or copies from someone else, their team cannot get a point for that question. Ask a question. After everyone stops writing, have them put their pencils down. Then lead a discussion revealing the correct answer. Then walk about the room to evaluate each answer. Record the scores on the chalkboard. Then ask the next question.

LESSON SEQUENCE:

Teacher Actions:

What do you call a children’s doctor?

Who is also part of the team working to keep you healthy?

Learning about what we eat and how it keeps us healthy—what is this called?

What do we need to walk, run, lift, reach, have a heartbeat, breathe?

Student Actions:

Pediatrician

You, your family, doctor, nurse

Nutrition

Energy

Why do we want good nutrition?	Three possible answers: growth, to stay healthy, to have energy
Name one of the problems nutrition can help prevent (keep from happening)?	Heart attack, stroke, high blood pressure (high blood)
Show Duplos™ food made up of pieces of Protein (building blocks); name the one of the 3 building blocks.	Protein Fat Carbohydrate
When you think of protein, what should you think of?	Growth
When you think of fat, what should you think of?	Piggybank
When you think of carbohydrate, what should you think of?	Energy
Name 2 of the food groups we talked about.	1) Grains 2) Fruits 3) Vegetables 4) Milk and cheese 5) Meat
Write the groups on the chalkboard.	
What foods taste good, but don't give you all the building blocks you need?	Fats and sweets
These foods belong to which food group?	Cheese (milk and cheese) Hamburger (meat) Turkey (meat) Bread (grain) Broccoli (vegetable) Spaghetti (grain) Peanut butter (meat) Potatoes (vegetable) Orange (fruit) Yogurt (milk and cheese)
If you eat a hamburger with a bun, how could you add a vegetable to what you eat?	Add a tomato (Other answers acceptable, such as eating carrots with your hamburger)
What could you eat for a snack instead of a cookie or another sweet?	Fruit or vegetable
When you put the foods you eat in the food pyramid and one of the sections is not filled, is this a good diet?	No

If one of the sections has too many things, it overflows. Is this a good diet?

No

END OF LESSON:

Closure: Count up the points each team has and distribute one prize to everyone and one extra prize to the winning team.

Lesson IX

SUBJECT: Nutrition/Health, 1st Grade

THEME: Nutrition, Health and Your Heart

DURATION: 30 minutes

OBJECTIVES: To understand that your heart pumps blood to your body.

The blood carries building blocks and other things your body needs for energy, growth and your piggybank.

Your heart cannot rest the way you do when you get tired. It has to work all the time, so it is important to keep your heart strong and healthy.

MATERIALS: Chalkboard
Poster of heart with body and blood vessels
Body model props—heart and other body part labels
Red smocks for “blood”
Duplos™ pieces forming “mixed” food block
Duplos™ pieces making long bone
Pure Duplos blocks—one of fat and one of protein

STARTING THE LESSON:

Teachers Actions:

What does your heart do?

You, the teacher, stand in place as “the heart.” Push (pump) the blood people to circulate around the body (the classroom) and return to you the heart, where you push (pump) once again.

And every time you feel your heart beat, it is pumping blood to your body.

Show how your heart pumps blood through the classroom. Have it circulate a few times.

Get volunteers to play the heart, the mouth, a leg, the head and the stomach. Give them their name tags and distribute the body parts people in the room.

Students Actions:

The heart pumps blood through your pipes to your body.

Volunteers put on name tags.

Get new volunteers to play the blood (or use the ones you just had). Give them their smocks.

Take the mixed block of Duplos™ pieces. Now you are going to eat a piece of food. And you can see that the food is made up of different building blocks. Show the different colors and explain which colors are protein, which are carbohydrate and which are fat.

Give the block to the mouth.

Your body is eating a piece of food. What happens when you chew it up?

But you didn't eat anything, so your blood doesn't have any building blocks. What happens?

Now what happens if you don't eat a balanced diet?

Here you eat a food that has all one type of building block—fat. Show the pure Duplos™ block.

What are the fat building blocks for?

Have a mouth chew and the stomach digest the pure fat block.

Distribute the fat building blocks to the blood people and circulate through the body.

Now your leg wants to grow again.

What does it need?

Does the blood have any protein building blocks?

So the leg will have problems growing.

Then you eat another food.

Show the pure protein food. Have it chewed and digested and distributed to the blood people.

Now the leg can get some protein to grow.

Volunteers put on their smocks.

You break it up into smaller pieces. (Guide the mouth in breaking up the lego block into smaller blocks. Make sure this is done so the other children can see and explain what is happening while the mouth is "chewing" the food.)

You don't have energy. You are tired. You are falling asleep. You are having trouble learning.

Piggybank

Protein

No

Blood people give protein building blocks to the leg, and the Duplos™ bone grows.

Now you need to walk someplace. What does your leg need to walk?

Energy—carbohydrate

But do your bones have any carbohydrate building blocks?

No

So, unless you eat food with some carbohydrate building blocks, your legs won't have the energy to walk and the rest of your body will also be weak and tired.

END OF LESSON:

Closure: So today we saw how your heart and blood work to bring the building blocks to your body to keep you strong and healthy and growing.

Optional: Five times each day, think what building blocks you are using at that moment.

Lesson X

SUBJECT: Nutrition/Health, 1st Grade

THEME: Nutrition, Health and Your Heart

DURATION: 30 minutes

OBJECTIVES: To understand that your heart pumps blood to your body.

The blood carries building blocks and other things your body needs for energy, growth and your piggybank.

When blood cannot get to all parts of the body, it can give a person a stroke, heart attack or other problems.

If you eat too much fat, it can clog up your blood pipes and then the blood cannot get to your whole body.

Your heart cannot rest the way you do when you get tired. It has to work all the time, so it is important to keep your heart strong and healthy.

MATERIALS: Chalkboard

Poster of heart with body and blood vessels

Overlay to show how blood flow can be obstructed from the heart

Body model props—heart and other body part labels

Red smocks for “blood”

White smocks for fat

STARTING THE LESSON:

Transition: How many of you did your homework? How many of you thought about what you ate and if it is a balanced diet?

What did you eat too much of?

What do you need to eat more of?

Motivator: Today we will learn how our heart works to carry the building blocks to our body to keep us healthy, strong and growing.

Review last lesson: What does good nutrition give us? (energy, growth and it helps keep us healthy)

How can we make sure we have good nutrition. (eat a balanced diet)

What are the food groups we need to have a balanced diet? (grains, fruits, vegetables, milk and cheese, meat)

What types of foods taste good, but we have to be careful not to eat too much? (fats and sweets)

Organizer: Review schematic of cardiovascular system and begin developing a body model in the classroom.

LESSON SEQUENCE:

Teacher Actions:

We said we need to eat fat to put in our piggybank, but too much fat is not good.

If you eat too much fat, you can put on extra weight. Ask why having extra weight is not good?

There is also a special type of fat called cholesterol. Ask how many have ever heard of cholesterol? Write cholesterol on the chalkboard.

Cholesterol is a special type of fat that can help make you sick.

Show the body poster. Show how the heart pumps the blood through the pipes out to the body. (Remember to explain this poster slowly and completely.)

(Lead conversation to admit that most people eat too many sweets and need to eat more fruits, grains and vegetables.)

Fat is sticky and when your blood carries the fat building blocks through the pipes, the building blocks can stick to the pipes.

Use overlay to show how the fat can narrow the pipes.

Then your heart has to work harder to push the blood through the smaller pipes.

Get volunteer to play the heart. Best to have an adult or play the part yourself. The person playing the heart should wear the heart tag around his/her neck.

Also get three volunteers to play the part of the blood. Have the blood children put on the red smocks.

Student Actions:

Children answer: You get tired having to carry all that weight around.

Volunteers to play heart, blood. Have the volunteers put on the costumes.

Get three volunteers to play the fat. Have these children put on the white smocks.

(Be aware that the children love to play these roles and are very disappointed when they are not selected. Make sure to distribute the parts equally in different sessions, and work to keep those in the classroom interested in what is happening with the role players.)

Clear a path so the blood can easily walk between the children's desks and cycle back to the heart. Keep the aisles narrow enough so that the fat will be able to significantly block the pipe by standing against the side.

Explain again how the heart pumps the blood through the pipes to the body, and then the blood comes back to the heart and is pumped again. Explain that the aisles represent the pipes, and the classroom represents the body.

Have the heart stand in place and gently push the blood people into the aisle. Have the blood people walk through the aisle and then cycle back to the heart. Explain as this is going on, that the heart is pumping blood through the body. Have the blood make 3 cycles through the body.

Now have the fat join the blood. Explain that you just ate some food that had some fat building blocks, and now those building blocks are ready to get carried to the body with the blood.

Have the fat and the blood make three cycles through the body.

Now remember we said that fat was sticky and will stick to the sides of the pipes.

On the next cycle have the fat stick to the side of the aisle in a group so as to significantly block the way.

Now for the heart to keep pumping the blood it has to work harder to get it past the clogged pipe.

Show the heart straining to push the blood around.

So the heart has to work extra hard.

The blood people cycle through the body after being "pumped" by the heart.

The fat role players join the blood and are pumped with the blood.

Heart grunts and moans working to pump the blood through the partially obstructed pipes.

What happens if you work extra hard? (You get tired.)

And when you are tired you lie down and rest.

OK, the heart is tired pushing the blood through the clogged pipes. Lets give the heart a rest.

What happens when you give the heart a rest. (The children will usually say you will die. Acknowledge that is a possibility, but that this can also give you a heart attack.)

Ask how many children have a relative who had a heart attack? (Explain that a heart attack happens when your heart works too hard and gets tired. Then it cannot pump the blood and building blocks to the body.)

So it is important not to eat too much fat in order to not clog up your pipes and make your heart work too much.

Have the heart stop pumping and the blood stop moving.

END OF LESSON:

Closure: So we saw how what you eat can make your heart work too hard and make it tired. So we are learning how to eat the right food, to have good nutrition, to help keep your heart strong and healthy.

Vocabulary: heart
cholesterol

Lesson XI

SUBJECT: Nutrition/Health, 1st Grade

THEME: Why Fat Can Be Bad for You

DURATION: 30 minutes

OBJECTIVES: To gain an understanding of the following concepts:

- When blood cannot get to all parts of the body, it can give a person a stroke, heart attack or other problems.
- Smoking can make the fat clog up your pipes (arteries) more.
- Exercise can help to keep your heart strong and keep your pipes clean.

Learn to recognize which foods have too much fat in them.

MATERIALS: Body model props
Picture of meat with fat
One piece of brown paper (from a paper bag) for each child
Potato chips
Pretzels

STARTING THE LESSON:

Transition: Last lesson we learned that fat can clog up your pipes and keep the food building blocks from getting to your body.

Motivator: Today we will learn which foods have too much fat in them.

Organizer: Classroom body model/brown paper fat test

LESSON SEQUENCE:

Teacher Actions:

Distribute pieces of brown paper bags to the children and have them put them on the desk in front of them. Put on each paper a few potato chips and a few pretzels. Tell the children they are not allowed to touch them until the end of the class.

Set up the classroom body model as in the last two lessons. Use this opening section to review whatever you want from the last two sessions with the classroom body model. If there are specific concepts

Student Actions:

which you feel need to be reinforced, review those. In addition, you will be introducing the impact of smoking and exercise.

Review how the blood carries the building blocks to the body.

Review how fat can clog up the pipes.

Ask the children how many of their family members smoke.

Introduce the concept that smoking makes the fat stickier, so it clogs up your pipes more. Specifically show how the fat people circulate with the blood, and with each cycle one of them “sticks” to the wall. Now start all over, and show that when a person smokes, the fat is stickier. Now with the first cycle, all or most of the fat sticks to the pipe wall, so it clogs up sooner.

So it is important to have good nutrition and not smoke.

Introduce the concept that exercise helps keep your heart strong, so it can help push the blood extra strongly to wash the fat out of the pipes. Show how the pipes are getting clogged up with the fat and the heart is getting tired pushing the blood through the clogged pipes. NOW show how a very strong heart in a person that exercises pushes the blood extra strongly. When the blood is pushed so strongly, the blood people go by the fat stuck to the wall, grab it and pull it away, helping to unclog the pipe. Show how the fat people can now go to the leg to go to the piggybank.

So it is important to exercise regularly to keep your heart nice and strong and to keep your pipes clean.

So what did we learn? To help stay healthy, you need good nutrition. What else do you need?

It is important to have good nutrition, to not smoke and to get your exercise.

Collect the body model props.

So we said too much fat can be bad for you. How do you know if you are eating fat?

Don't smoke.
Exercise.

Show picture of meat with fat on it.

Sometimes you can see the fat, like with this piece of meat. (Point out the meat and the fat in the picture.)

But sometimes the fat is hidden. Now everyone look at the potato chips and pretzels you have on your desk. Does anyone see any fat on the potato chips or the pretzels? (Some of the children will answer yes. Make sure to clarify in the discussion that by looking at the potato chips or pretzels you cannot see any fat.)

Now move the potato chips over and look at the brown paper where they were. See the brown stains? That is the fat in the potato chips.

Now move the pretzels. Do you see any fat on the brown paper?

So you see pretzels do not have a lot of hidden fat, but potato chips do.

So if you want to eat a snack, what would be better than potato chips? Or even better would be some fruit or carrots.

Now list some other foods which have hidden fat and ask the children for lower fat substitutions.

nachos/cheese puffs

cheese

whole milk

(Remember that some of the children may be lactose intolerant and not be able to drink milk.)

bologna

hot dog

fried chicken

popcorn without butter
pretzels
fruit/carrots

low fat cheese

skim milk

chicken/turkey

hamburger

baked chicken

END OF LESSON:

Closure: So today we learned how smoking and too much fat are bad for you, and that exercise can help keep you healthy. We also learned that we have to look for hidden fat in the food we eat.

Your homework is to look at the food you eat and if it has too much fat—both fat you can see or hidden fat—try to find a different food that does not have so much fat.

Now everyone can eat the potato chips and the pretzels.

Lesson XII

SUBJECT: Nutrition/Health, 1st Grade

THEME: Reading Food Labels to Get Good Nutrition and Avoid Excess Fat

DURATION: 30 minutes

OBJECTIVES: Learning to substitute lower fat foods for high fat foods

Learning that labels on foods can tell you which building blocks are in the foods you eat.

MATERIALS: Chalkboard

Food containers

(Try to bring in a wide assortment of foods, including some specifically higher fat foods. Try to bring in at least a few things the children regularly eat. Try to bring in enough boxes/cans so that each child gets one. The children will not want to share. Bringing in food labels only—as opposed to the whole food container—does not get as good a response and demands less attention. Try to bring in at least a few foods with a high fat content. Whole condensed milk and hot dogs are examples.)

Poster of sample food label

STARTING THE LESSON:

Transition: We have been learning that too much fat can be bad for us. Today we are going to learn how to keep from eating too much fat.

Motivator: You are going to learn how you can go to the store and help pick out the foods that do not have too much fat.

Review last lesson: Review the results of the hidden fat test with the brown paper bag.

Then list higher fat foods, and ask the children to suggest appropriate lower fat substitutions. Some suggestions are listed below:

nachos/cheese puffs

popcorn without butter

pretzels

fruit

carrot sticks

cheese

low fat cheese

yogurt

whole milk

skim milk

(Remember that some of the children may be lactose intolerant and not be able to drink milk.)

ice cream

frozen yogurt

french fries

baked potato
mashed potato
boiled potato

(You may need to discuss to make sure that the children know that french fries are made of potatoes.)

bologna
hot dog

chicken/turkey

fried chicken
hamburger

baked chicken
broiled chicken

Organizer: Today we are going to learn to use food labels to find hidden fat in foods and to see if we are eating all the building blocks.

LESSON SEQUENCE:

Teacher Actions:

Distribute the food boxes/cans, one per child. Be careful as a hierarchy of the foods will develop very quickly and some will covet their neighbor's food.

Put the poster of the food label on the chalkboard.

Ask the children to find the food label on their food container. Explain that some of the food labels will look a little different. Walk around the room and confirm that each child has found his/her food label.

NOTE: THIS IS A VERY IMPORTANT ASPECT OF THIS LESSON. TO MAKE IT WORK, IT IS NECESSARY TO WALK AROUND THE ROOM AND CONFIRM THAT EACH CHILD HAS FOUND THE CORRECT ITEM ON HIS/HER LABEL. IF POSSIBLE, ENLIST THE HELP OF THE TEACHERS IN THIS. THIS TAKES A GOOD AMOUNT OF TIME, BUT IT IS NECESSARY.

What are the building blocks that food gives us?

Student Actions:

Children find the food label on their food container.

Protein, carbohydrate, fat

What does each building block give us?
(USE LABELS ON CHALKBOARD)

Protein=growth
Carbohydrate=energy
Fat=piggybank

Does anyone see the names of any of the building blocks on their food label?

Children volunteer as having identified one of the building blocks written on their food label.

Confirm that one of the children has really identified one of the building blocks on his/her label.
(It is best to save fat for last.)

Children identify appropriate building block on food label.

Ask if everyone can find that building block on their food label?

Walk through the classroom to confirm that each child has found the correct building block.

Child volunteer finds other building block on food label.

Does anyone see another building block written on their food label? Prompt the children to find the other building block which is not fat.

Walk through the classroom to confirm that each child has found the correct building block.

So we found protein and carbohydrate on each label. What building block are we missing?

Fat

Can anyone find fat on their food label?

Volunteer points out fat on his/her label.

Walk through the classroom to confirm that each child has found the word fat on their food label.

So you see, the names of the three building blocks—protein, carbohydrate and fat—are written on each food label.

Point to this on the poster.

Now what is written next to each building block?

A number

Demonstrate this on the poster. Show that next to each building block is a number.

Walk through the classroom to confirm that each child has found the numbers written next to the building blocks on their food label.

What do you think these numbers mean?

Lead a discussion to understand that these numbers represent how much of each building block is in each food.

Now, which building block did we say you need for growth?

Protein

So to make sure you have enough protein building blocks to grow well, you can look on your food label to make sure the food has enough protein.

Which building block do you need for energy?

Carbohydrate

So to make sure you have enough building blocks for energy you can look at your food label to make sure the food has enough carbohydrate.

Remember, you have to be careful not to get too much of one type of building block so it doesn't clog up your pipes. Which building block is that?

Fat

We showed how you can find hidden fat with the brown paper test, but another way is to look at the food label.

Everyone find fat written on your food label, and tell me how much fat building blocks are in the food you have.

Children find the word fat on the food label and identify the fat content of their food package.

Review the fat content of the food containers distributed to the class and identify the highest fat food of those distributed to the classroom.

(This is admittedly simplistic as it doesn't take into account sample size and total calories. The overall concept we want to get across to the children is that the labels exist and they can provide you with some insight into the "hidden" fat content of different foods.)

So if you want to see how much fat is in the foods you are buying in the store, you can look at the label to make sure you are not eating too much fat.

END OF LESSON:

Closure: So your homework is this: Next time you go to the food store with your mother/father/grandmother/aunt/uncle/other family shopper, look at the food labels and see how many of each type of the building blocks are in the foods you eat.

You can also help teach your family how to read the food labels to see what building blocks are in the food everyone eats.

Lesson XIII

SUBJECT: Nutrition/Health, 1st Grade

THEME: Empowerment

DURATION: 30 minutes

OBJECTIVES: To have the children start to understand that they have a responsibility to themselves for their own health, and that they have the ability to start making personal choices.

MATERIALS: Food containers

STARTING THE LESSON:

Transition: We learned about the building blocks and how our body uses them. Now we are learning how to find those building blocks on food labels.

Motivator: By learning about good nutrition and reading food labels, we are learning how to keep ourselves healthy.

Review last lesson: Distribute the food containers. Review the contents and use of the food labels by having the children describe it to you. Prompt them with questions, such as:

- Who can show me the food label on their package?
(Remember to work with each child individually to ensure that each one understands what you are talking about.)

- Who can show me the name of one of the building blocks written on their food label? (Repeat this until you identify all three.)

- Why do you need protein? (growth) Why do you need carbohydrate?(energy) Why do you need fat? (piggybank)

- What is written next to the names of the building blocks? (numbers)

- What do these numbers mean? (They tell you how many of each building block are in the food.)

- How can you look for hidden fat? (brown bag test, look at food label)

- Why can eating too much fat be bad for you? (make you gain too much weight, clog up your pipes)

- What can make the fat stickier so it clogs up your pipes faster? (smoking)

- What can make your heart strong and help keep your pipes clean? (exercise)

Organizer: Review of nutrition and good health and personal responsibility

LESSON SEQUENCE:

Teacher Actions:

What can you do to help stay healthy?

Who decides what you eat?

(Lead a discussion that acknowledges that the children do not do the shopping or cooking, but that they do have influence over what is eaten or provided for them. Also be sensitive to the fact that some children's food choices and availability may be limited by economic concerns.)

Remember when we looked for the hidden fat with the brown paper bag?

Which food did we say has a lot of hidden fat?

How many of you ate potato chips this week? Did anyone make you eat the potato chips?

Did you ask for them?

Now, what did we say was a healthier snack?

From what you learned here, you can now ask for a healthier snack.

YOU CAN MAKE A DIFFERENCE.

Student Actions:

Eat a balanced diet

Don't eat too much fat

Don't smoke (when you get older)

Exercise

See a doctor for check-ups—not only when you are sick.

Potato chips

popcorn without butter
fruit
carrots or other vegetables
yogurt

After school, how many of you go home, sit down and watch TV?

Instead of watching TV, go play with some friends and get some exercise. Now be careful and don't play in the streets. Be sure you are safe and careful.

(Be sensitive to the fact that due to lack of appropriate parks or facilities and safety concerns, many of the children may have limited access to safe, supervised exercise and play opportunities.)

If you want to get exercise everyday, can you do it?

YOU CAN MAKE A DIFFERENCE.

Do any of you smoke? (This question will usually get a few laughs.)

Do your parents or grandparents smoke?

Does anyone make them smoke?

They smoke because they want to smoke.

Can you say, "I will not start smoking when I grow up?"

YOU CAN MAKE A DIFFERENCE.

Who is in charge of you?

Your parents and teachers help you, but as you grow older you will be deciding more and more for yourself.

You can say: **I AM IN CHARGE OF ME.**

I AM IN CHARGE OF KEEPING MYSELF HEALTHY.

Other people may tell you what to do, but if it is bad for you, who will get sick? **YOU WILL.**

END OF LESSON:

Closure: We have learned how food is made up of building blocks. We have learned how our bodies use the building blocks for growth, for energy and for our piggybanks. We have learned how eating a balanced diet

can help keep us healthy, and how eating the wrong things may make us sick when we grow older. Now it is our job to use the things we have learned here together.

I CAN WORK TO KEEP MYSELF HEALTHY.

I CAN MAKE A DIFFERENCE.