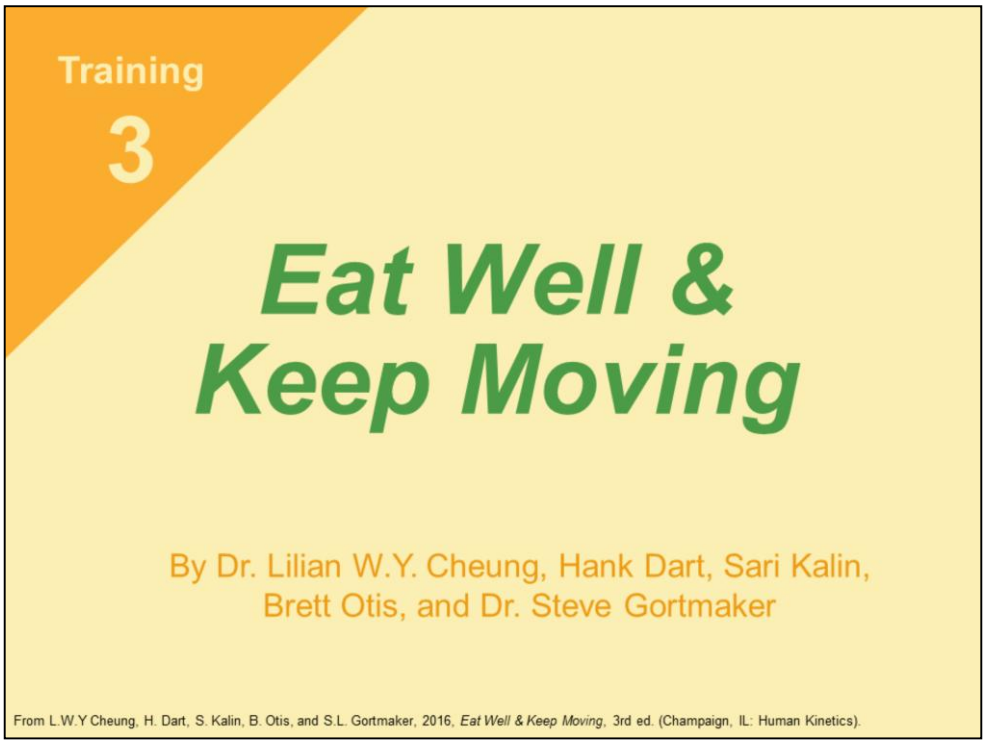


Welcome to the *Eat Well & Keep Moving* Workshop!

Eat Well & Keep Moving is an innovative interdisciplinary health curriculum for fourth- and fifth-grade students. You can use this curriculum to teach students about nutrition and physical activity while building skills and competencies in language arts, math, science, and social studies. Focusing on these common instructional themes will strengthen connections among academic disciplines for students and teachers.

Eat Well & Keep Moving was first created under a grant from the Walton Family Foundation to the Harvard School of Public Health. The curriculum was implemented by elementary school teachers in the Baltimore City Public Schools in Maryland. Recommendations made by these teachers helped create the published version of *Eat Well & Keep Moving*.

Since publication of the first edition of *Eat Well & Keep Moving* in 2001, the program has been disseminated throughout all 50 states and across more than 20 countries. The third edition of *Eat Well & Keep Moving* has incorporated updated research and recommendations from the *Dietary Guidelines for Americans 2015*.

(Note to the presenter: Comments in parentheses are instructions to presenters to be followed while giving the presentation, but not to be read to participants. This convention will be followed throughout the notes in this slide show.)

Eat Well & Keep Moving Introductory Workshop Agenda Topics

I. Introductions

II. What Is *Eat Well & Keep Moving*? **(Presentation)**

III. Are You Concerned About Your Students' Nutrition and Physical Activity Habits? **(Discussion)**

IV. The Health of Young People: Alarming Trends in Nutrition, Physical Activity, and Inactivity **(Presentation)**

V. Turning the Tables: Why Schools Need to Be Part of the Solution **(Presentation)**

VI. *Eat Well & Keep Moving* Curriculum Overview **(Presentation)**

VII. *Eat Well & Keep Moving's* Nutrition and Physical Activity Messages **(Demonstration Lessons)**

VIII. Talking to Youth About Nutrition and Physical Activity Habits **(Role Play, Discussions)**

Let's start by going over the contents of your training folder and the agenda.

In your folder, you have several documents. (*It may be beneficial to include information from the popular press or scientific publications on the* Dietary Guidelines for Americans, *Fact Sheets on nutrition and physical activity, and recent articles on nutrition, physical activity, TV viewing, and obesity. A complete list with suggestions is located in Links to Additional Resources on Nutrition, Physical Activity, and Reduction of Screen Time on eatwellandkeepmoving.com.)*

The format of this training includes presentations, discussions, and activities from the book. We want to give you a feel for what it's like to be a student and experience these activities and give you some chances to move around and talk with your colleagues. Let's take a look at the agenda. *(Go over agenda very briefly. Item VI on the agenda can include an optional planning activity, if there is time.)*

Eat Well & Keep Moving
Demonstration Lessons

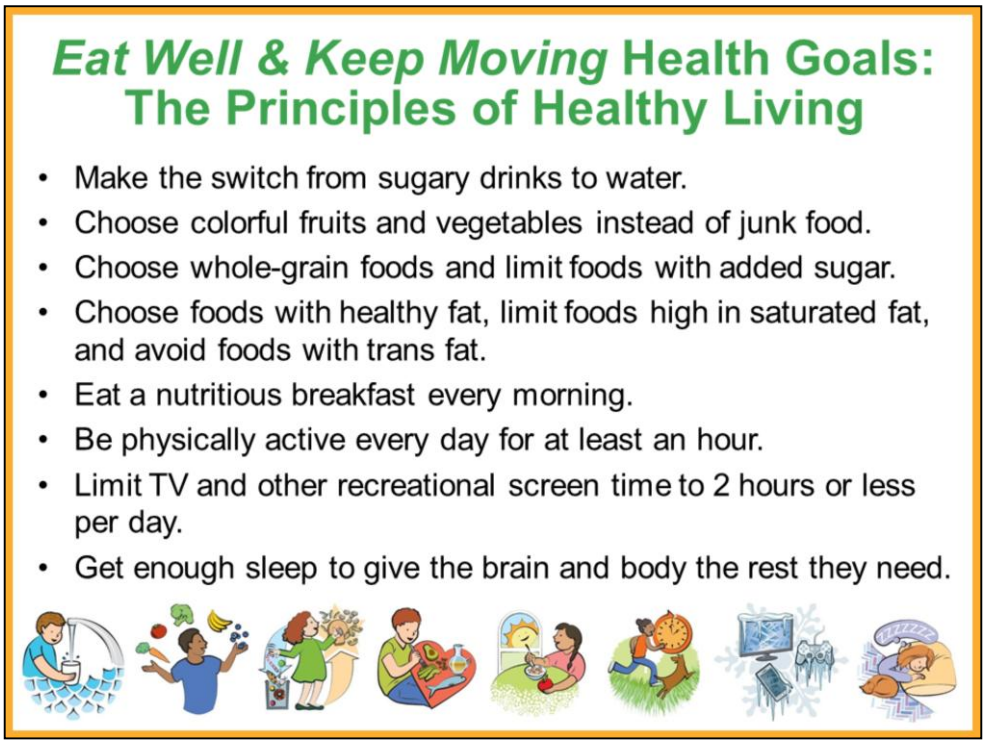
- **Healthy Living: Lesson 1 (4th grade)**
- **Chain Five: Lesson 11 (4th grade)**
- **Hunting for Healthy Fat: Lesson 18 (5th grade)**
- **Beverage Buzz: Lesson 19 (5th grade)**
- **Thinking About Activity, Exercise, and Fitness: Lesson 44 (physical education lesson)**
- **Safe Workout: An Introduction: Lesson 3 (4th grade)**
- **Freeze My TV: Lesson 29 (promotional campaign)**

This is a list of the lessons we will do parts of during the workshop. I've chosen lessons that give an overview of the range, background information, and goals we hope to get across. *(This information can be printed on the back of the agenda for reference.)*

What Is *Eat Well & Keep Moving*?

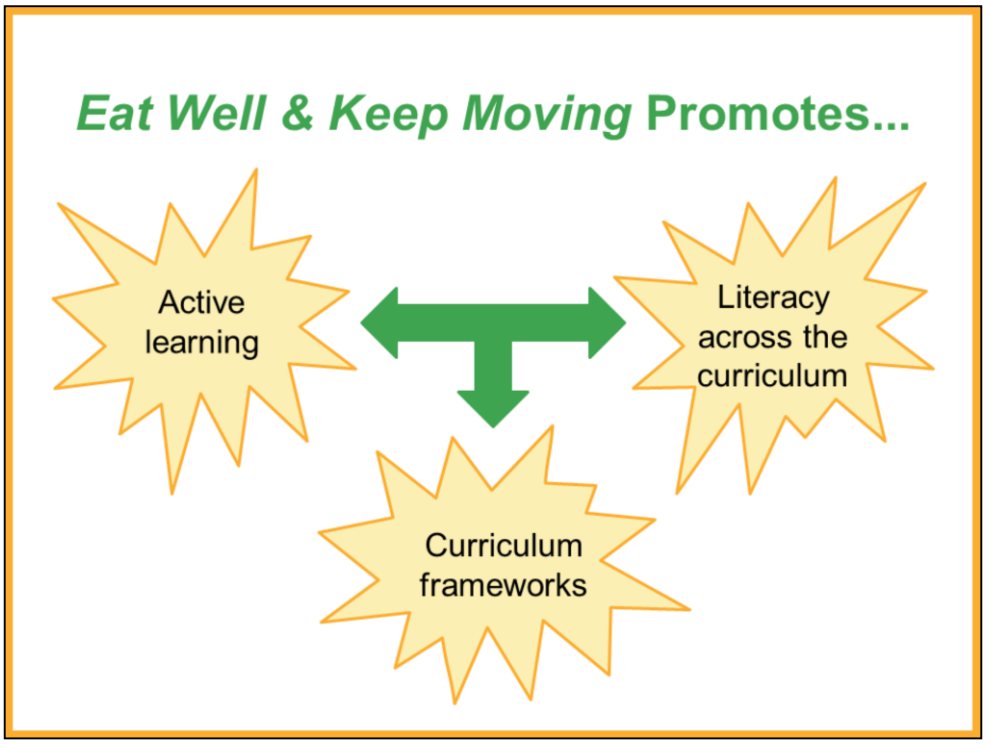
- It's an interdisciplinary health program for 4th- and 5th-grade students that teaches students about nutrition and physical activity.
- It builds skills and competencies in language arts, math, science, social studies, and physical education.

Now let's take a look at the goals and curriculum components of *Eat Well & Keep Moving*. *(Read the slide.)*



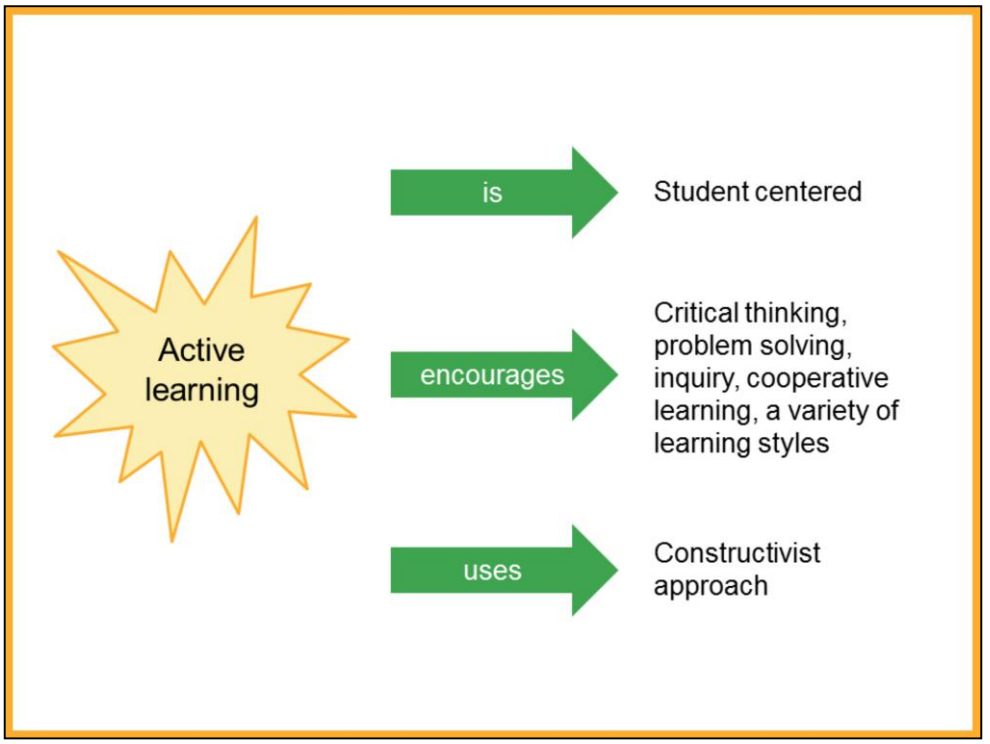
Eat Well & Keep Moving focuses on eight simple health goals, referred to throughout the text as the Principles of Healthy Living. *(Read them.)* The *Eat Well & Keep Moving* curriculum encourages students to think about their choices for nutrition and activity and gives them practice developing strategies for achieving their goals. Putting these health messages into practice can help everyone, children and adults, improve their current well-being and decrease their risks for many chronic conditions and diseases.

We will discuss each of these goals in greater detail during subsequent training sessions.

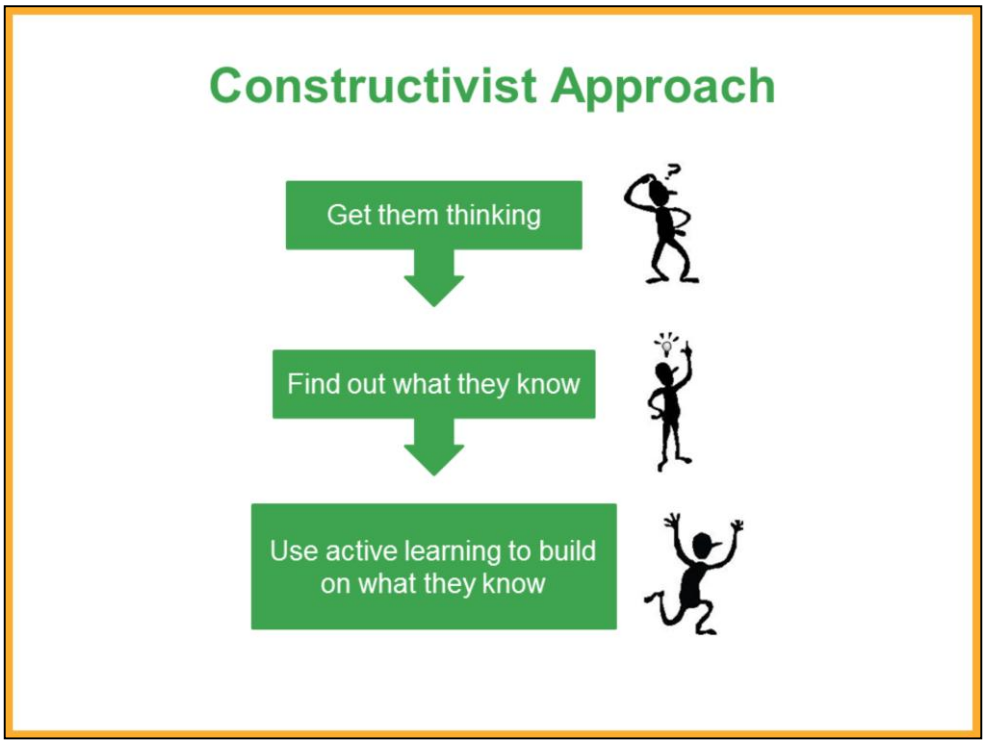


(Note to presenter: For information on Eat Well & Keep Moving *lesson alignment with curriculum standards, visit the* Eat Well & Keep Moving *Web site at www.eatwellandkeepmoving.org.)*

Eat Well & Keep Moving promotes active learning, educational standards, and literacy across the curriculum.

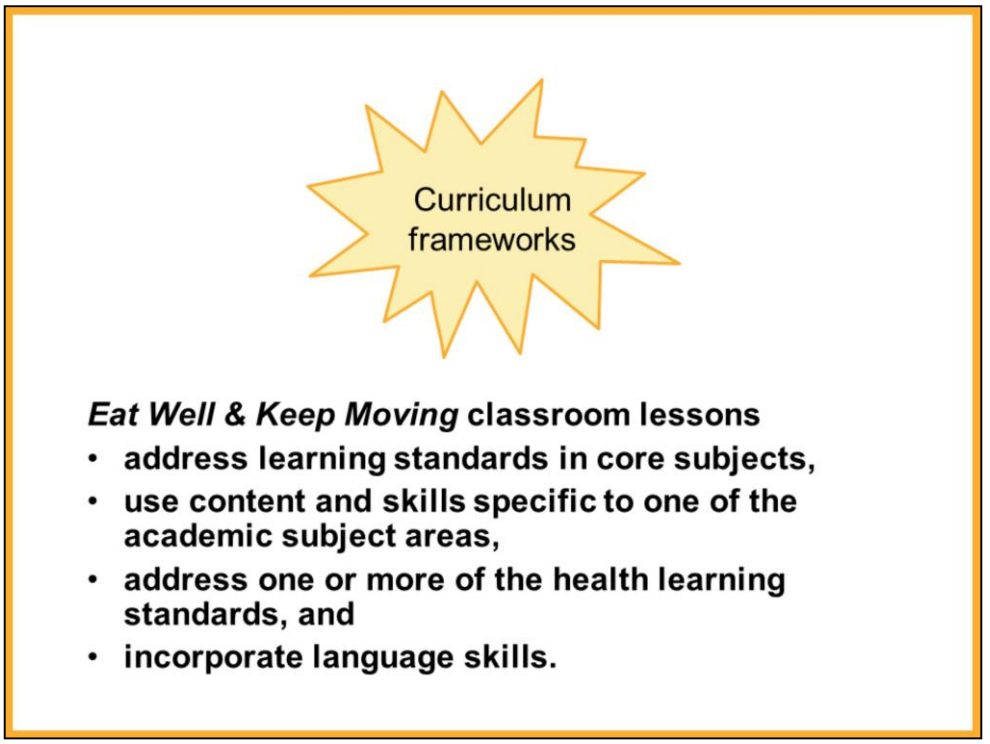


Eat Well & Keep Moving is student-centered. Students read, write, speak, listen, experiment, and reflect on nutrition and physical activity in the lessons. They actively engage in brainstorming, case studies, demonstrations, games, and group projects. The lessons foster critical thinking and problem solving.



Eat Well & Keep Moving uses a constructivist approach to teaching and learning. Probably many of you have used this type of approach, but you may not have given it this name. Constructivist thinking emphasizes that students learn best when they actively construct meaning for themselves. Students come to the classroom with different knowledge and experiences. Constructivism encourages teachers to create learning environments that activate and build on this diversity in a manner that is active, inquiry based, and student centered.

Each *Eat Well & Keep Moving* lesson begins by activating and assessing students' prior knowledge. Once that has taken place, new information is more likely to stick. The lessons then use inquiry-based strategies to build on what they know.

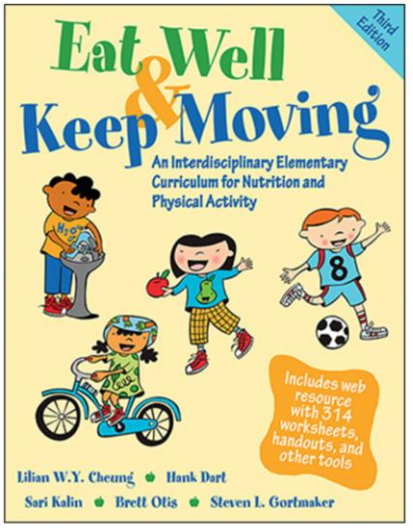


Eat Well & Keep Moving is aligned with state curriculum frameworks. Each of the classroom lessons addresses learning standards in health, and most lessons also address standards in one of the four academic subject areas: math, science, language arts, and social studies. Also, the curriculum encourages literacy across the disciplines by incorporating language skills in many lessons: reading, writing, discussing, listening, and developing vocabulary.

(If you have decided to include your state's curriculum alignment information in the workshop handouts, say the following:)

Please take out the information from your pack on how *Eat Well & Keep Moving* lessons align with our state's curriculum frameworks. This handout contains a list of the learning standards with the corresponding lessons that address those learning standards. If meeting state learning standards is a priority for you, this section should help you select lessons that best suit your curriculum objectives.

Why Use This Program?



Available at www.HumanKinetics.com

Why use this program?

Research on *Eat Well & Keep Moving*

- **4th- and 5th-grade students in 14 Baltimore public schools**
- **Program is designed to meet these goals:**
  - Increase fruit and vegetable consumption
  - Reduce saturated fat intake
  - Reduce TV watching
  - Increase moderate and vigorous physical activity
- **Classroom, food service, school-wide campaign, and community components**

Eat Well & Keep Moving was first used in 14 Baltimore public elementary schools in Maryland. The program aims to increase children's fruit and vegetable consumption, reduce saturated fat intake, get students to spend less time in front of the TV or computer screen, and get more physical activity into their daily routines. It is designed to be implemented in the classroom by classroom teachers, and some components require the help and cooperation of food service and the community. Several school-wide activities also can be implemented as part of the program. We will go over these later in the workshop.

Eat Well & Keep Moving Has Been Evaluated and Shown to Be Effective

Effective in

- reducing saturated fat intake,
- increasing fruit and vegetable intake,
- increasing fiber and vitamin C intake, and
- reducing TV viewing.

It was well received by school staff and students.

When the program was implemented and feedback from students and teachers was collected, it was found that the *Eat Well & Keep Moving* program was effective in *(read the bullets)*

SOURCE

Gortmaker, S.L., Cheung, L.W., Peterson, K.E., Chomitz, G., Cradle, J.H., Dart, H., Fox, M.K., Bullock, R.B., Sobol, A.M., Colditz, G., Field, A.E., & Laird, N. (1999). Impact of a school-based interdisciplinary intervention on diet and physical activity among urban primary school children: Eat well and keep moving. *Archives of Pediatric Adolescent Medicine 153*(9): 975-83.

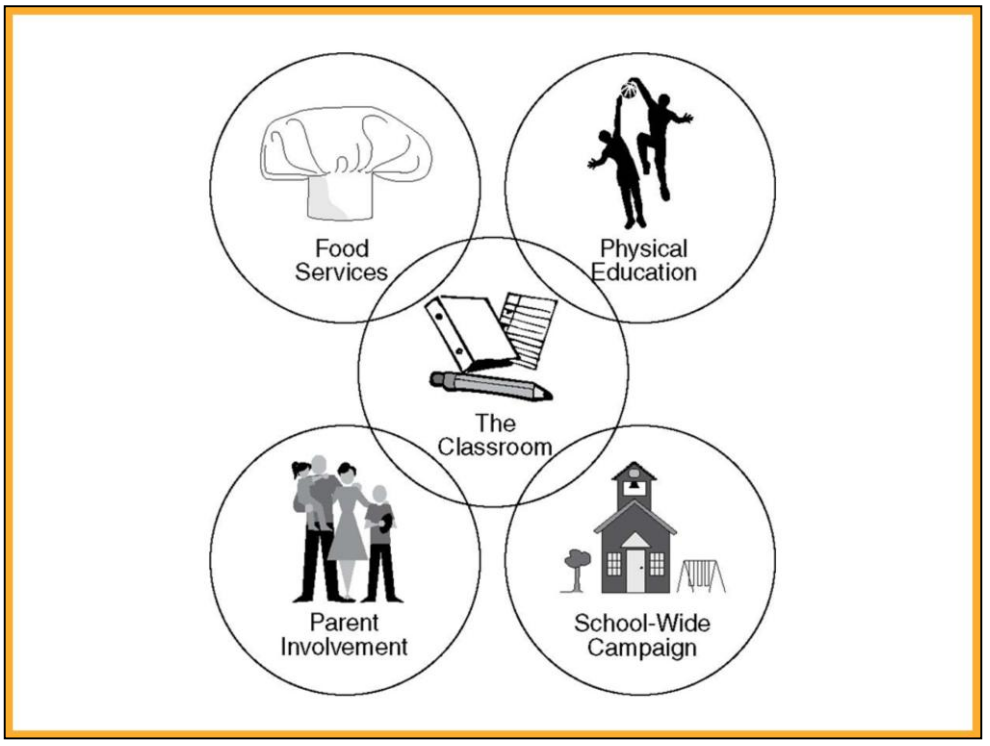
Acceptability of *Eat Well & Keep Moving*

100% of responding teachers said they would teach the curriculum again.

"What impresses me most about this program is its integrative quality…. Principals, teachers, students, food staff, and parents benefit from increased knowledge and awareness of issues that are fundamental to improving one's life."

Principal, elementary school

All the teachers who used the program in those first years in Baltimore said they would teach the curriculum again. As one principal said… *(read quote)*



As we said, the classroom lessons are central to the program, but there are also lessons in physical education that are designed to be taught in a small space, if necessary, with minimal equipment. They can also be taught by the classroom teacher if there is no PE teacher available. School-wide promotional campaigns, such as walking clubs and Freeze My TV, also can be used in involving other classes in the school. These PE lessons and school-wide campaigns are part of the book lessons.

In some lessons and on the Web Resource are suggestions for involving school food service (Manual 4) as well as parents and community members (Manual 3). The Web Resource includes all the lessons in printable PDF documents, as well as newsletters and links to fact sheets to send home to parents. The Web Site links to external resources on a host of topics, including school wellness policies and staff wellness.

The *Eat Well & Keep Moving* curriculum can be an integral part of your school's wellness policy.

Now that you have heard a bit about *Eat Well & Keep Moving*, let's talk about why it's so important to eat well and keep moving. Let's address this question in two parts. First, what are the long-term benefits of healthy eating and physical activity? *(Allow adequate wait time to encourage teachers' responses before displaying the next slide.)*

Healthy Eating and Active Living…

- **Promote normal physical growth and development.**
- **Prevent childhood and adolescent health problems such as obesity, dental cavities, iron-deficiency anemia, and even diabetes.**
- **Provide nutrients for brain development, immunity, healing, and healthy skin and eyes, among other functions.**
- **Lower the risk of chronic diseases such as heart disease, diabetes, osteoporosis, and some cancers.**

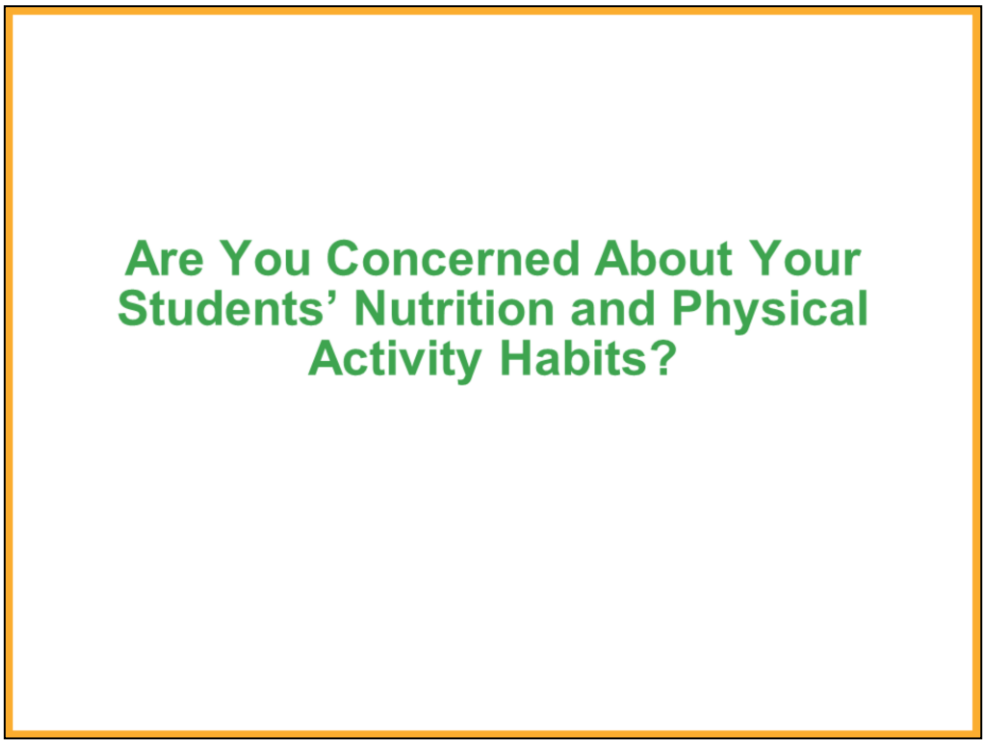
(continued)

(Review the bullet items not mentioned by teachers.) Do you think these benefits will seem important enough to your students to motivate them to choose healthy eating and activity patterns? *(Adequate wait time is again important.)* Why or why not? Can you think of some immediate benefits that might appeal to fourth- and fifth-grade students?

Healthy Eating and Active Living… *(continued)*

- **Make you strong and fit.**
- **Brighten your mood and build a positive self-image.**
- **Help you maintain a healthy weight.**
- **Are important for learning.**
- **Are fun!**

(Review the bullet items not mentioned by teachers.) These are the benefits you need to emphasize to your students.



(Read the slide. If teachers don't respond right away, you can prompt with questions.)

Do your students eat healthy foods? Do they get a lot of physical activity? Do any of your students seem overweight to you? Do they seem to watch a lot of TV?

(Give teachers time to express their concerns. You will most likely hear about their students' bad eating habits. Ask teachers about the school's physical education program and after-school activity options. Do students walk to school? Are they worried about their screen-watching habits?)

The Health of Young People

Trends in Nutrition,
Physical Activity, and Inactivity

It sounds as though you're concerned about the health habits of your students. You are not alone. Let's look at how U.S. youth are faring in regard to eating and activity habits.

Children Are At Risk!
Trends in Nutrition

- **Too many sugary drinks!**
  - 27% of teens drink one or more soda a day
  - 19.4% drink two
  - 11.2% drink three or more
- **Children and youth still consume too much saturated fat.**
- **Four out of five children do not eat enough fruits and vegetables.**
  - 1/3 of children eat less than a serving of vegetables per day
  - Half of children eat less than a serving of fruit per day

Youth consumption of soft drinks and other sweetened beverages is on the rise in the United States. In 2013, 27 percent of teens drank one or more soda a day, 19.4 percent drank two or more, and 11.2 percent drank three or more.* Research suggests that consuming sugar-sweetened beverages is associated with excess weight gain in children and adults.**

National data show that saturated fat consumption is still too high in children and youth.*** Meanwhile, fruit and vegetable consumption is too low: while a high percentage of youth do consume at least some fruits and vegetables on a given day, about a quarter of youth did not consume any fruit on a given day. Less than 10% of youth did not consume any vegetables on a given day.****

SOURCES

*Kann, L., et al. (2013). Youth Risk Behavior Surveillance — United States. CDC. Retrieved on December 1, 2014, from http://www.cdc.gov/mmwr/pdf/ss/ss6304.pdf.

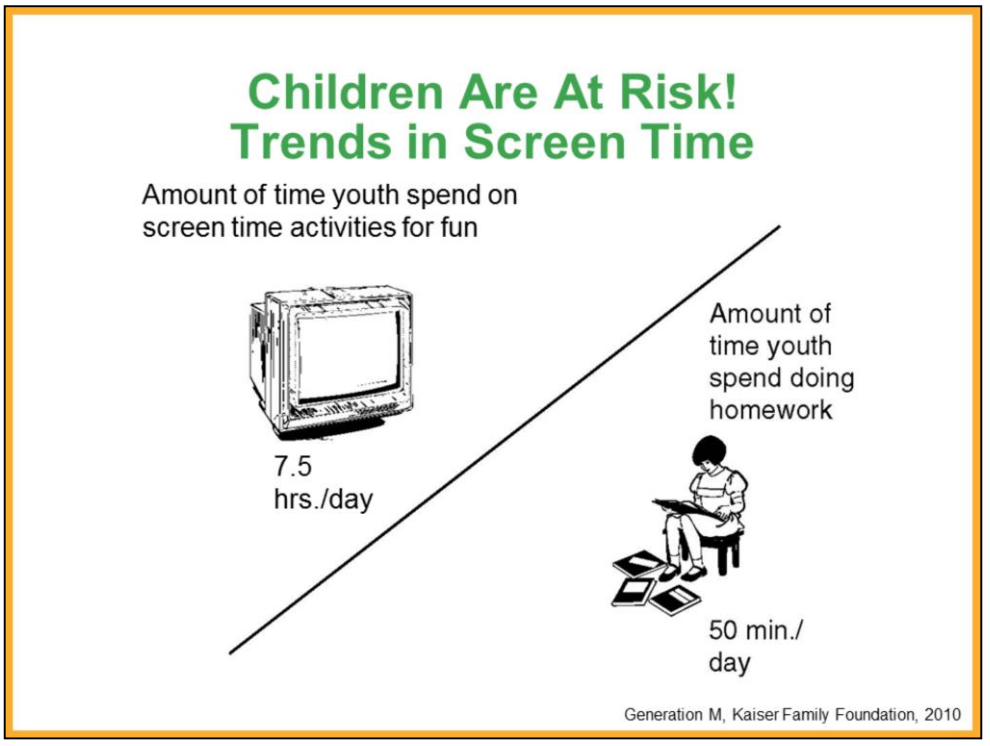
**Ebbeling, et al. (2012). A Randomized Trial of Sugar-Sweetened Beverages and Adolescent Body Weight. *New England Journal of Medicine 367*(15): 1407-16.

**Malik, et al. (2010). Sugar-Sweetened Beverages, Obesity, Type 2 Diabetes Mellitus, and Cardiovascular Disease Risk. *Circulation 121*: 1356-64.

***Ervin, R., & Ogden, C.L. (2013). Trends in Intake of Energy and Macronutrients in Children and Adolescents From 1999–2000 Through 2009–2010. Retrieved December 1, 2014, from

http://www.cdc.gov/nchs/data/databriefs/db113.htm.

****Nielsen, S., Rossen, L., Harris, D., & Ogden, C.L. (2014). Fruit and Vegetable Consumption of U.S. Youth, 2009–2010. Retrieved December 1, 2014, from http://www.cdc.gov/nchs/data/databriefs/db156.htm.



Did you know that a recent national survey of students in grades 3-12 found that, on average, students spent more than 7 and a half hours a day using media (more than any other activity, except maybe sleep)?* Contrast that with the 50 minutes a day they spent doing homework (the average for students in grades 7-12), and the 43 minutes a day they spent reading (the average for students in all grades).

Researchers think that increases in TV viewing over the past 30 years are likely contributing to the increase in child overweight.** The most likely link between television and weight gain has to do with diet quality. We're not just talking about how people snack while they watch TV. Think about what you see on TV advertisements, especially during children's programs. Very often snack foods and sugary sweets and drinks are made to seem very exciting for kids as well as adults. There is evidence that watching food advertisements makes kids more likely to ask their parents for the foods they see advertised—and makes parents more likely to buy the foods.*** TV food ads have also been tied to drinking too much soda and eating too much fast food and sugary and salty snacks; they have also been tied to eating too few fruits and vegetables.****

SOURCES

*Kaiser Family Foundation. (January 2010). Generation M Squared: Media in the lives of 8-18 year olds. Retrieved December 3, 2014, from http://kaiserfamilyfoundation.files.wordpress.com/2013/01/generation-m-media-in-the-lives-of-8-18-year-olds-report.pdf.

**Ludwig, D.S., & Gortmaker, S.L. (2004). Programming obesity in childhood. *Lancet 364*(9430): 226-7.

**Harris, J.L., Bargh, J.A., & Brownell, K.D. (2009). Priming effects of television food advertising on eating behavior. *Health Psychol. 28*(4): 404-13.

***Coon, K.A., & Tucker, K.L. (2002). Television and children's consumption patterns: A review of the literature. *Minerva Pediatr. 54*(5): 423-36.

***Kaiser Family Fountain. (2007). *Food for Thought: Television Food Advertising to Children in the United States*. Retrieved December 5, 2014, from http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7618.pdf.

****Falbe, J., et al. (2014). Longitudinal relations of television, electronic games, and digital versatile discs with changes in diet in adolescents. *Am J Clin Nutr. 100*(4): 1173-81.

Children Are At Risk!
Trends in Physical Activity

- **Only 4% of elementary schools provide daily PE for all grades.**
- **23% of children do not participate in any free time physical activity in a typical week.**
- **Participation in organized physical activity is declining: Children ages 6-12 who played sports regularly fell from 44.5% in 2008 to 40% in 2013.**

Only 4% of elementary schools provide daily physical education (or its equivalent in minutes per week) for all grades.* And sadly, students are not spending nearly enough time being active outside of school hours. A national survey of children aged 9-13 (and their parents) fielded by the Centers for Disease Control and Prevention found that 23% of children did not participate in any free time physical activity during a typical week.** Participation in organized physical activity is declining: Children ages 6-12 who played sports regularly fell from 44.5% in 2008 to 40% in 2013.

SOURCES

*IOM. (2012). Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Retrieved December 5, 2014 from http://www.iom.edu/Reports/2012/Accelerating-Progress-in-Obesity-Prevention.aspx.

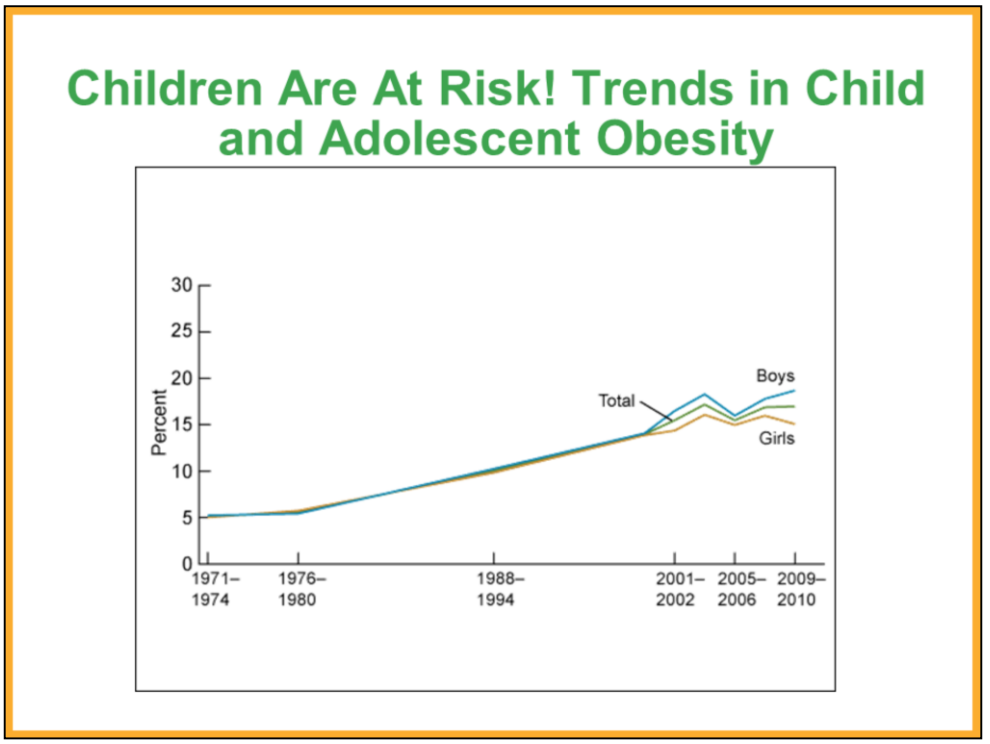
**Centers for Disease Control and Prevention. (2014). Adolescent and School Health: Physical Activity Facts. Retrieved December 17, 2014 from http://www.cdc.gov/HealthyYouth/physicalactivity/facts.htm.

***The Aspen Institute: Project Play. (2014). Facts: Sports Activity and Children. Retrieved December 17, 2014 from http://www.aspenprojectplay.org/the-facts.

Children Are at Risk!
Trends in Overweight

- **The percentage of children who are overweight has risen dramatically over the past 30 years.**

(Read the slide.)



Here is a chart showing the dramatic rise in obesity among children and adolescents aged 2-19 since the 1970s. Focusing specifically on children between the ages of 6-11 years old, the percentage of kids who are overweight has quadrupled since the 1970s: in 1971-1974, 4% were overweight; in 2009-2010, 18% were overweight. The rate of overweight has more than tripled in adolescents aged 12-19, from 6% in 1971-1974, to 18.6% in 2009-2010.

SOURCE

Centers for Disease Control and Prevention. National Center for Health Statistics. Prevalence of Obesity Among Children and Adolescents: United States, Trends 1963-1965 Through 2009-2010. Retrieved on January 5, 2014, from

http://www.cdc.gov/nchs/data/hestat/obesity_child_09_10/obesity_child_09_10.htm

Health Consequences of Overweight

Overweight and obese people are at increased risk for the following:

- **Type 2 diabetes**
- **Heart disease**
- **Depression**
- **High blood cholesterol**
- **Premature death**
- **Stroke**
- **Hypertension**
- **Asthma**
- **Some cancers**

Overweight and obesity in adults are linked to several chronic diseases. *(Read a few from the slide.)* And children are now experiencing adult-type diseases caused by overweight. Type 2 diabetes, once considered an adult disease, has increased dramatically in children and adolescents.*

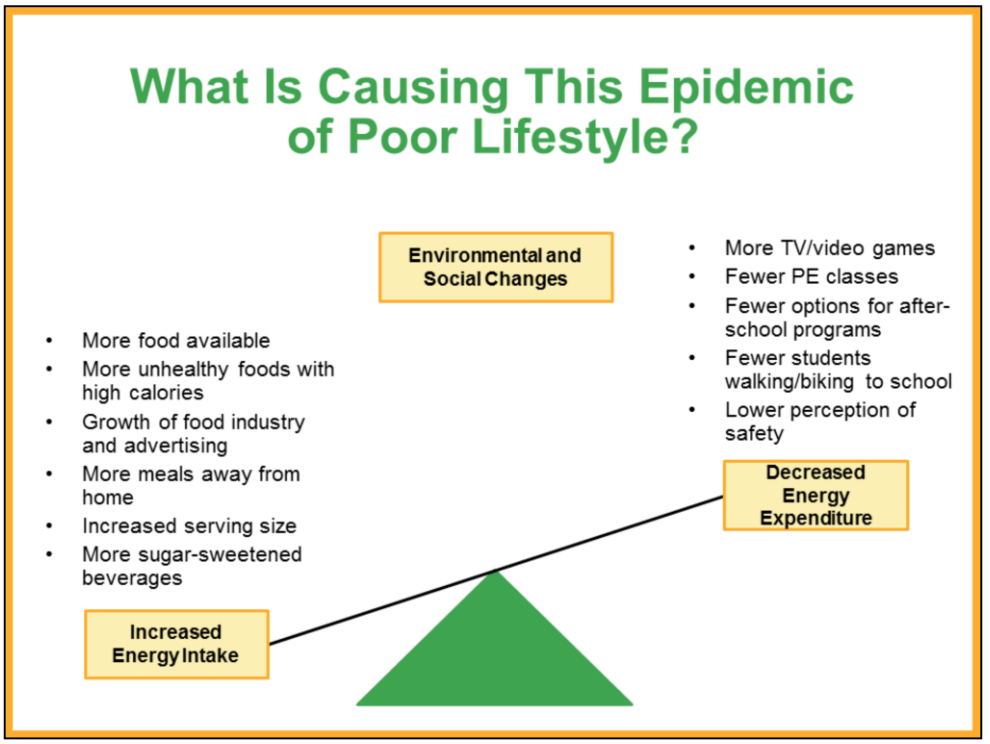
High blood cholesterol and other blood lipids, high blood pressure (hypertension), and high insulin levels are also found more frequently in overweight youth. Among youth who had 3 or more risk factors, 74% were overweight.**

Overweight adults with multiple risk factors are at a greater risk for developing cardiovascular disease and diabetes. These findings highlight the importance of prevention and treatment of overweight in children and adolescents.

SOURCES

*U.S. Department of Health and Human Services. (2001). The Surgeon General's call to action to prevent and decrease overweight and obesity. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General. Retrieved April 10, 2007, from www.surgeongeneral.gov/topics/obesity/calltoaction/CalltoAction.pdf.

**Freedman, D.S., Dietz, W.H., Srinivasan, S.R., & Berenson, G.S. (1999). The relation of overweight to cardiovascular risk factors among children and adolescents: The Bogalusa Heart Study. *Pediatrics 103*(6 Pt 1): 1175-82.



What is causing this epidemic? Body weight is maintained by balancing energy intake (food) with energy output (physical activity). If you put more in than goes out you gain weight. Small imbalances add up over a long period of time. A person's genetic makeup contributes to their body size and composition and makes some people more likely to be larger. However, because obesity has increased so rapidly we know its origin is not genetic. The gene pool did not change in the course of 20 years.

What changed is our environment and lifestyle. Culture can also affect these patterns, but poor dietary habits, increased consumption of calorie-dense foods, and fewer opportunities for physical activity contribute to the problem.

(Review the bullets on each side of the balance. This is a good slide to provoke discussion about lifestyle changes and the fact that lifestyles of children today are different from those of 20 or 30 years ago, on which many listeners will be able to report from personal experience. Below are some additional details that might be useful to add while reading the bullets.)

Americans spend about half of their food budget and consume about 1/3 their daily energy intake on meals prepared outside of the home.

In the 1950s Coca-Cola packaged only 6.5-ounce bottles; single-serving containers expanded to 12 ounces and now 20 ounces. At fast-food restaurants, larger sized meals can be purchased for a small additional fee; meals are "super sized".*

Advertising directly affects food choices. The food industry spends 1.8 billion dollars annually on marketing targeted to young people. The overwhelming majority of these

ads are for unhealthy products, high in calories, sugar, fat, and/or sodium. On television alone the average U.S. child sees approximately 13 food commercials every day, or 4,700 a year; and teens see more than 16 per day, or 5,900 in a year. Additionally, companies continue to find new and creative ways to reach children through social media channels, often blurring the line between content and advertising.** In 2010, McDonald's alone maintained 13 different websites that attracted 365,000 unique child visitors and 294,000 unique teen visitors per month.***

SOURCES

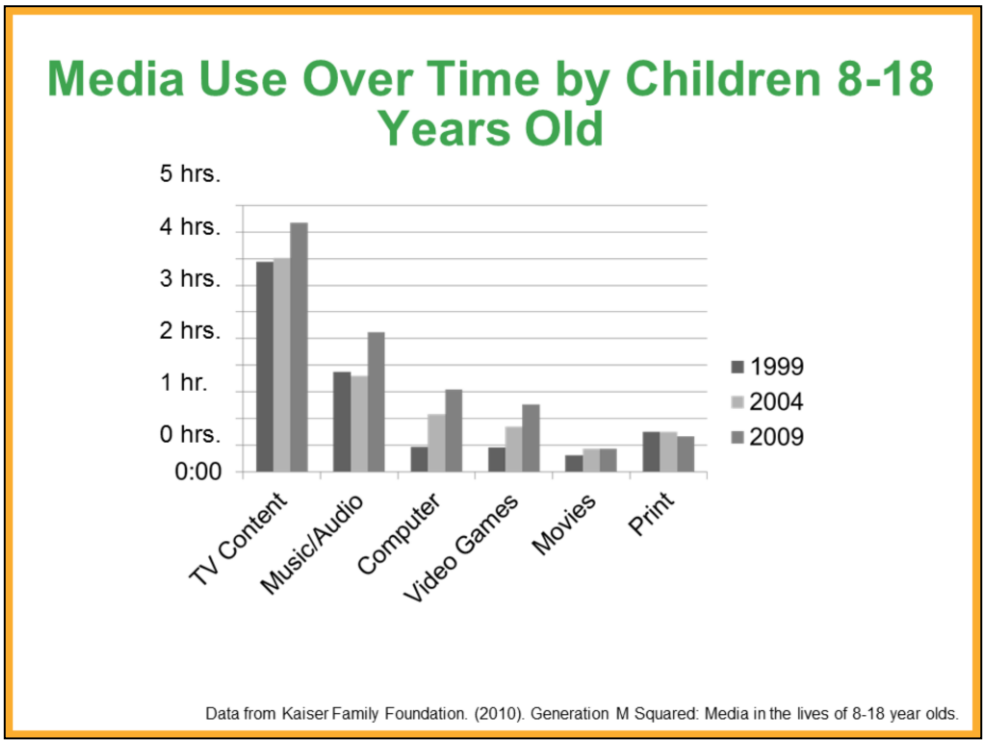
*Nestle, M., & Jacobson, M.F. (2000). Halting the obesity epidemic: A public health policy approach. *Public Health Reports 115*: 12-24.

**UCONN Rudd Center for Food Policy & Obesity. (2013). *Food Marketing to Youth.* Retrieved December 1, 2014, from http://www.yaleruddcenter.org/what_we_do.aspx?id=4.

***Yale Rudd Center for Food Policy & Obesity. (2013). *Fast Food F.A.C.T.S., Food Advertising to Children and Teens Score.* Retrieved January 6, 2015, from http://www.fastfoodmarketing.org/media/FastFoodFACTS_report.pdf

What Does Screen Time and Sugary Drink Consumption Have to Do With It?

Let's take a closer look at two factors that are likely to be contributing to the obesity epidemic in youth: an increase in recreational screen time (especially in TV viewing) and an increase in consumption of soda and other sugary drinks.



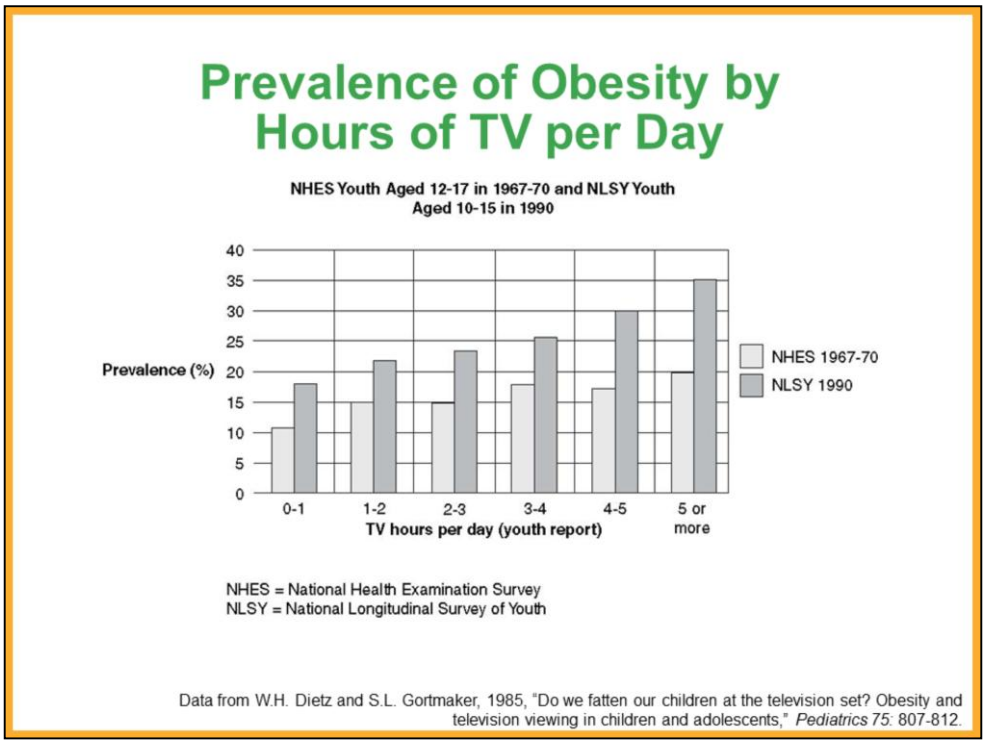
Media, from traditional television to newer technologies, are a dominant force in children's lives. According to one study, the average 8- to 10-year-old in the U.S. spends nearly 8 hours a day with a variety of different media, and older children and teenagers spend over 11 hours per day. Having a TV set in a child's bedroom increases these totals even more.*

(Point to the chart.) The media landscape is constantly changing. Nearly all children and teenagers have Internet, and one-third have access in their own bedroom. Computer time accounts for up to 1.5 hours per day, half of which is spent in social networking, playing games, or viewing videos. Although TV remains the predominant medium, nearly one-third of TV programming is viewed on alternative platforms (computers, tablets, or smartphones).**

SOURCES

*Kaiser Family Foundation. (2010). Generation M Squared: Media in the lives of 8-18 year olds. Retrieved December 3, 2014, from http://kaiserfamilyfoundation.files.wordpress.com/2013/01/generation-m-media-in-the-lives-of-8-18-year-olds-report.pdf.

**American Academy of Pediatrics. (2013). Policy Statement: Children, Adolescents, and the Media. Retrieved January 15, 2015, from http://pediatrics.aappublications.org/content/132/5/958.full#ref-1

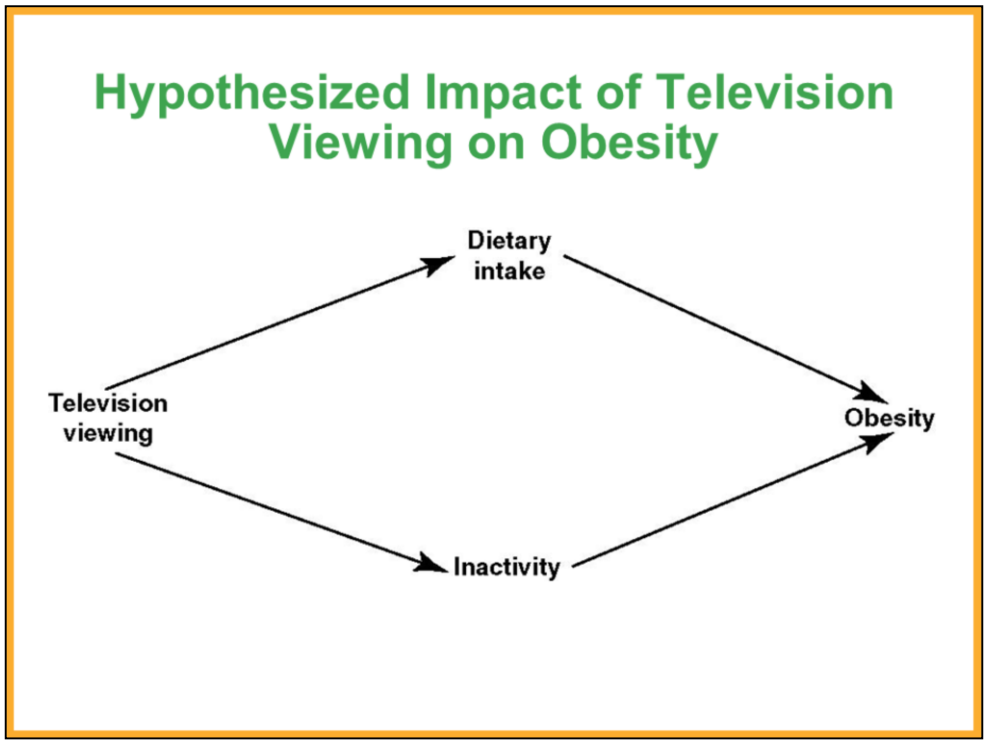


This graph illustrates that there is a correlation between obesity and TV viewing. *(Familiarize teachers with the axes.)* The data from both surveys indicate that youth who watch more TV are at greater risk for obesity. *(Point out the difference in obesity prevalence for the 0 to 1 and 5 or more hours groups.)*

SOURCES

Dietz, W.H., & S.L. Gortmaker. (1985). Do we fatten our children at the television set? Obesity and television viewing in children and adolescents. *Pediatrics 75*(5): 807-12.

Gortmaker, S.L., Must, A., Sobol, A.M., Peterson, K., Colditz, G.A., & Dietz, W.H. (1996). Television viewing as a cause of increasing obesity among children in the United States, 1986-1990. *Archives of Pediatrics & Adolescent Medicine 150*(4): 356-62.



Why does TV viewing have an impact on overweight? Researchers suggest some possible mechanisms. First, watching television may displace physical activity. Think about it—when you're sitting down in front of the TV, perhaps there's something more active that you're *not* doing, like talking a walk, vacuuming the floor, or playing with your kids. TV watching may also slow down a person's metabolic rate while they are watching; when you're watching TV, usually you're not moving around very much, or even using your brain very much. So you're burning less fuel, fewer calories, and that can also contribute to overweight.

The most likely link between television and weight gain has to do with diet quality. We're not just talking about how people often snack while they watch TV. Think about what you see on TV advertisements, especially during children's programs. Very often snack foods and sugary sweets and drinks are made to seem very exciting for kids as well as adults. Children and teens see on average 12-16 TV ads a day for products generally high in saturated fat, sugar, or sodium.* There is evidence that watching food advertisements makes kids more likely to ask their parents for the foods they see advertised—and makes parents more likely to buy the foods. TV food ads have actually been tied to drinking too much soda and eating too much fast food and sugary and salty snacks; they have also been tied to eating too few fruits and vegetables.

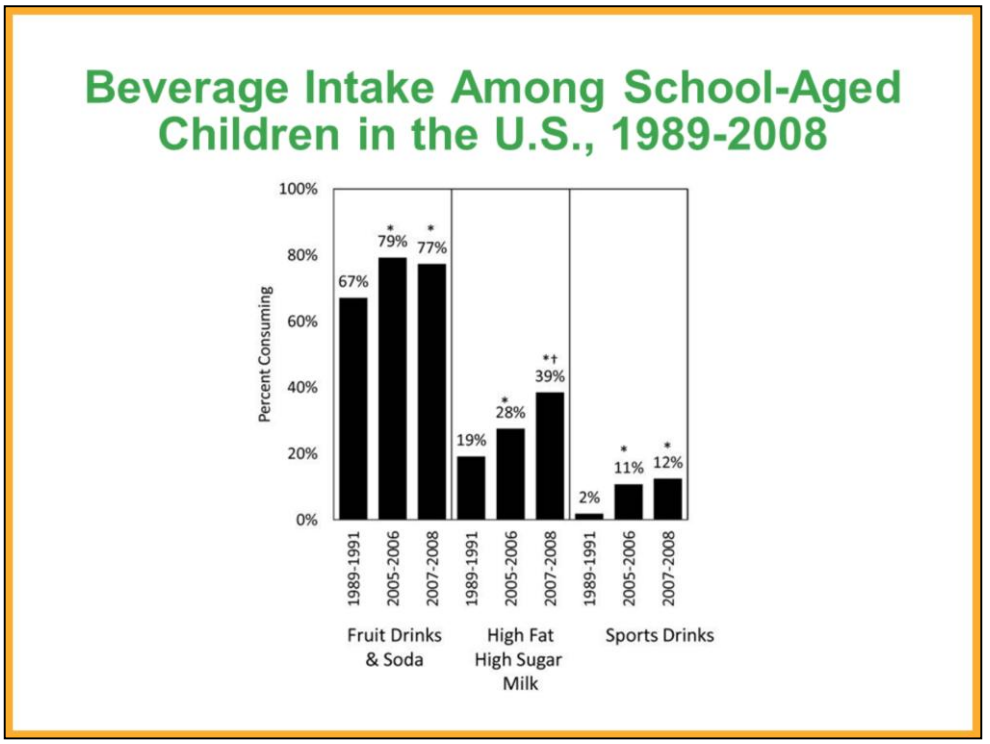
SOURCES

Falbe, J., et al. (2014). Longitudinal relations of television, electronic games, and digital versatile discs with changes in diet in adolescents. *Am J Clin Nutr. 100*(4):1173-81.

Ludwig, D.S., & Gortmaker, S.L. (2004). Programming obesity in childhood. *Lancet 364*(9430): 226-7.

Coon, K.A., & Tucker, K.L. (2002). Television and children's consumption patterns: A review of the literature. *Minerva Pediatr. 54*(5): 423-36.

*Powell, L.M., Harris, J.L., & Fox, T. (2013). Food marketing expenditures aimed at youth: putting the numbers in context. *Am J Prev Med. 45*(4): 453-61.



As you can see from this chart, consumption of fruit drinks and soda remains high, and consumption of high-fat, high-sugar milk (such as chocolate milk) and sports drinks is increasing.

SOURCE

Lasater, G., Piernas, C., & Popkin, B.M. (2011). Beverage patterns and trends among school-aged children in the US, 1989-2008. *Nutr J. 10*: 103.

Sugar-Sweetened Beverage Consumption and Overweight

- **Sugar-sweetened beverages contribute to childhood obesity and to adult obesity and type 2 diabetes.**
- **Reducing intake of sugar-sweetened beverages can reduce the prevalence of overweight among youth.**

Studies have demonstrated a strong link between sugar-sweetened beverage consumption and childhood obesity. One study found that middle school students who increased their consumption of soft drinks also increased their chance of becoming obese over the 18-month study. For each additional serving consumed per day over the baseline intake, the odds of obesity increased 60%.* Sugar-sweetened beverage consumption has also been linked to weight gain and diabetes incidence in adults.**

Reducing or avoiding empty calories from sugar-sweetened beverages may help with weight control: A school-based randomized controlled trial found that reducing the intake of sugar-sweetened beverages reduced overweight among youth after a 1-year intervention.*** Another study found that when teenagers reduced their sugar-sweetened beverage consumption by replacing sugar-sweetened beverages with non-caloric beverages, overweight teenagers lost weight.****

SOURCES

*Ludwig, D., Peterson, K., & Gortmaker, S. (2001). Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet 357*: 505-08.

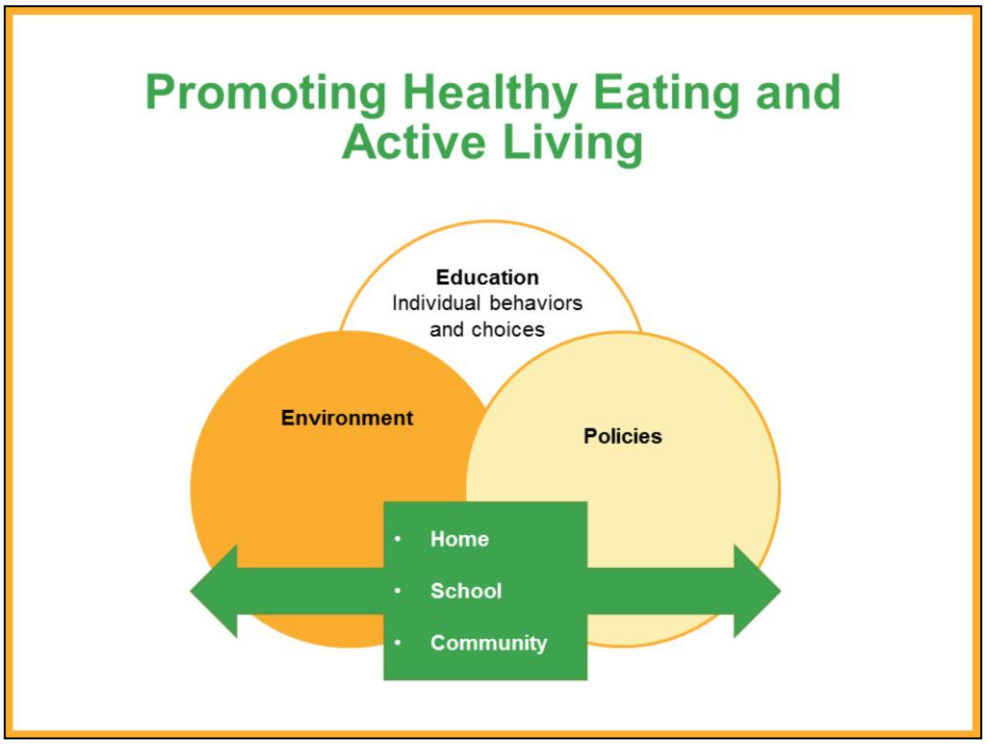
**Mozaffarian, D., Hao, T., Rimm, E.B., Willett, W.C., & Hu, F.B. (2011). Changes in diet and lifestyle and long-term weight gain in women and men. *N Engl J Med. 23*;364(25): 2392-404.

***Ebbeling, C.B., Feldman, H.A., Chomitz, V.R., Antonelli, T.A., Gortmaker, S.L., Osganian, S.K., & Ludwig, D.S. (2012). *N Engl J Med. 367*(15): 1407-16.

****de Ruyter, J.C., Olthof, M.R., Seidell, J.C., & Katan, M.B. (2012). A trial of sugar-free or sugar-sweetened beverages and body weight in children. *N Engl J Med. 367*(15): 1397-406.

Turning the Tables: Why Schools Need to Be Part of the Solution!

What can we do to reverse the trends we've just discussed? Why do schools need to be part of the solution?



Physical activity and eating behaviors are clearly individual choices. However, they are clearly influenced by the environment we live in, as well as policies, cultural norms, and lifestyles.

Most interventions that are aimed at getting people to eat healthy food and be physically active focus on changing individual behaviors. They educate people—give people the facts (What is healthy eating? Why is it important? People join health clubs, weight-loss programs, get a personal trainer.). These types of interventions give people an opportunity to practice healthy choices with the hopes that they will change their habits and incorporate healthy eating and activity into their everyday lives. In most cases this doesn't work. Fifty percent of the people who start an exercise program quit after 6 months.

As the U.S. continues to fight an obesity epidemic, scientists have begun to realize that we need to take a public health approach to encourage people to eat well and keep moving and to prevent obesity. We need to create environments and enact policies that support healthy lifestyles at home, in school, and in the community. Then we need to encourage people to LIVE healthy lifestyles by increasing their routine physical activity, walking to school, taking the stairs, watching less TV, and drinking water instead of soda. We need to encourage these behaviors in children—so that we help them establish life-long health

habits.

This approach has already seen success in tackling other public health problems, like smoking.

SOURCE

Nestle, M., & Jacobson, M.F. (2000). Halting the obesity epidemic: A public health policy approach. *Public Health Reports 115*: 12-24.

Surgeon General's Recommendation: School-Based Action

A comprehensive wellness plan that includes effective health education for all.

- A sequential health education curriculum, a school wellness policy, professional development for teachers and staff, partnerships with families, and external community members
- Nutrition: Ensure availability of healthy foods at every eating occasion at school, promote healthy choices, limit vending machine access, provide adequate time to eat meals, availability of water throughout the day
- Physical Activity: Daily PE, recess, extracurricular PA opportunities, active transportation programs, community use of facilities for out of school time hours

In 2001, the Surgeon General of the United States published a report on the epidemic of obesity and the long-term potential effects on the health of our citizens. The report made recommendations about what can be done to help reduce and prevent overweight in children and young people in the school setting. In 2010, the Surgeon General expanded upon this initial report, emphasizing the importance for schools to establish a comprehensive wellness plan that includes effective health education for all.* The plans should include *(Read Sub-bullets.)*

The Institute of Medicine, in 2005, also called for schools to play a crucial role in preventing child obesity, by providing "a consistent environment that is conducive to healthful eating behaviors and regular physical activity."**

SOURCES

*U.S. Department of Health and Human Services, Office of the Surgeon General. (2010). *Surgeon General's Vision for a Healthy and Fit Nation*: *Creating Healthy Schools.* Retrieved December 17, 2014, from www.surgeongeneral.gov/initiatives/healthy-fit-nation/obesityvision2010.pdf

**Institute of Medicine of the National Academies. (2005). *Preventing Child Obesity: Health In The Balance.* Washington, DC: The National Academies

Press.

Healthy Eating and Physical Activity Are a Critical Part of Learning and Achievement

- Brain development and function require an adequate supply of nutrients.
- Eating breakfast increases academic test scores, daily attendance, concentration, and class participation.
- Children learn through movement.
- Physical activity increases alertness.
- Schools that offer intensive physical activity programs see no negative effects on academic achievement scores even when time for physical education is taken from the academic day.
- Children spend more time reading and doing homework when parents set limits on TV viewing and other recreational screen time.

(Read the slide title and read bullets.) The finding on intensive school physical activity programs *(the next-to-last bullet)* disputes the concerns of school administrators that spending more time on physical education will interfere with academic performance.

SOURCES

Center on Hunger, Poverty, and Nutrition Policy. (1995). *Statement on the link between nutrition and cognitive development in children.* Medford, MA: Tufts University School of Nutrition.

Meyers, A.F., et al. (1989). School breakfast program and school performance. *American Journal of Diseases of Children 143*: 1234-9.

Food Research and Action Center. (2014). Breakfast for learning. Retrieved December 17, 2014, from http://frac.org/wp-content/uploads/2009/09/breakfastforlearning.pdf.

Pollitt, E., Leibel, R.L., & Greenfield, D. (1981). Brief fasting, stress, and cognition in children. *American Journal of Clinical Nutrition 34*: 1526-33.

Sallis, J.F., McKenzie, T.L., Kolody, B., Lewis, M., Marshall, S., & Rosengard, P. (1999). Effects of health-related physical education on academic achievement: Project SPARK. *Res Q Exer Sport 70*(2): 127-34.

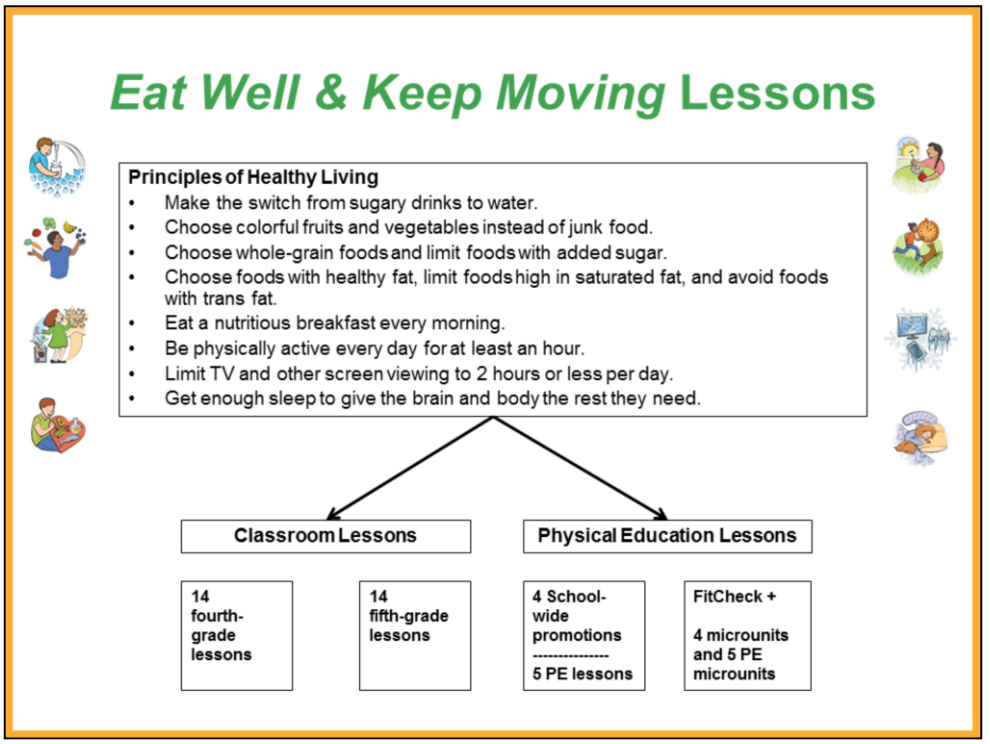
Trudeau, F., & Shephard, R.J. (2008). Physical education, school physical activity, school sports and academic performance. *Int J Behav Nutr Phys Act*. *5*: 10.

Wiecha, J.L., Sobol, A.M., Peterson, K.E., & Gortmaker, S.L. (Sept.-Oct. 2001). Household television access: associations with screen time, reading and homework among youth. *Ambulatory Pediatrics 1*(5): 244-51.

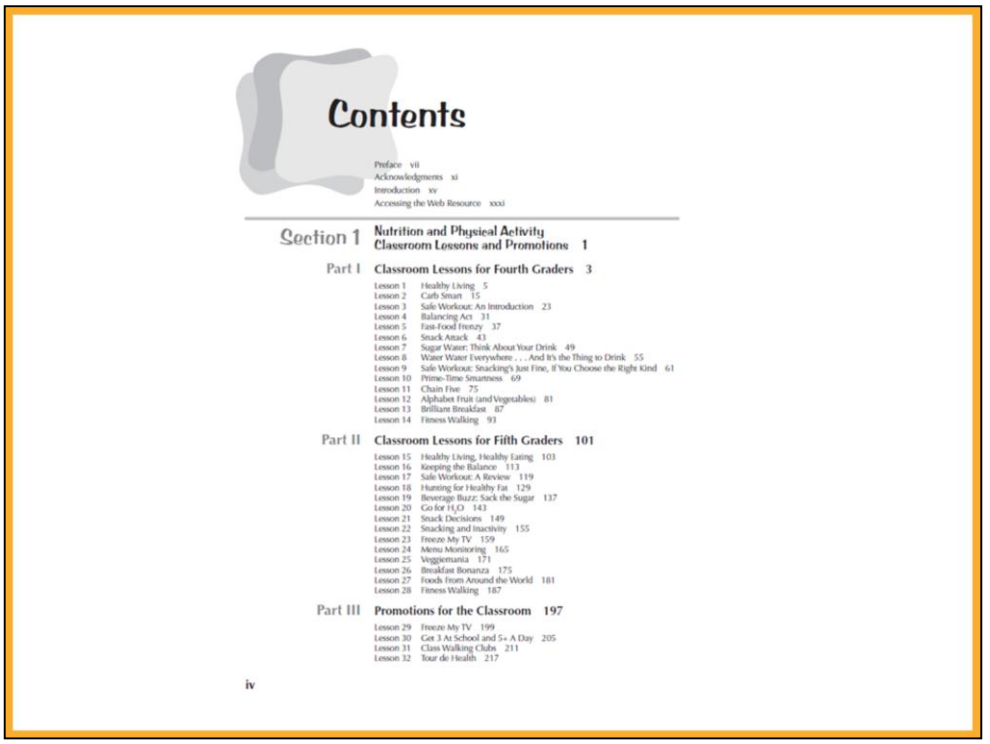
Vandewater, E., Bickham, D., & Lee, J. (2006). Time Well Spent? Relating Television Use to Children's Free-Time Activities. *Pediatrics 117*(2): e181-e191.

Let's take a look at how the *Eat Well & Keep Moving* program works in fourth- and fifth-grade classrooms. We'll also look at how you can make connections beyond the classroom.

Keep in mind as we go through this material that *Eat Well & Keep Moving* is about being healthy and fit. When talking to students about these messages, we want to emphasize the benefits of healthy lifestyle. Avoid conveying an attitude of restriction, such as saying that kids need to give up all high-sugar foods or TV. Moderation is the key.



The *Eat Well & Keep Moving* curriculum consists of classroom lessons and physical education lessons. Each of the lessons in the book is meant to get across one or more of the goals in fun and interesting ways. There are 14 lessons for 4th grade and 14 for 5th grade, as well as 4 school-wide promotional campaigns, 5 physical education lessons, and additional smaller PE microunits. All the lessons, including physical education, are designed to be taught by the classroom teacher and can be taught in small indoor spaces, but if you have a gym and PE teacher, that's great.



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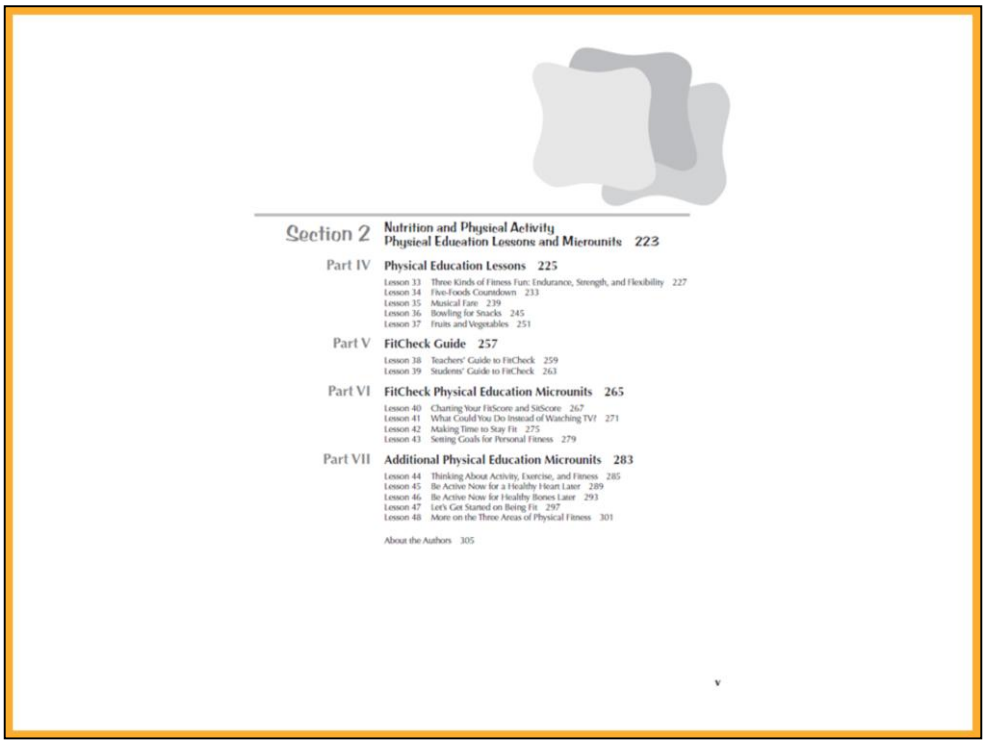
Now let's take a look at the book itself. This slide shows the table of contents of the book.

The introduction provides a great overview of the program and its sections, and it shows how the various parts fit together to form the program. At the end of the Introduction is a useful planning grid, outlining lessons, promotions, and related parent fact sheets and newsletters.

(Optional: This training can be extended with a lesson planning session. See optional slide 62 in this presentation.)

Then you'll notice here that there are 14 lessons for fourth grade (part I) and 14 lessons for fifth grade (part II). The lessons appear in a sensible order, but you may want to change the order to fit with your classroom needs and schedule. Part III contains the school-wide promotional campaigns, such as Get 3 At School and 5^+ A Day (to promote fruit and vegetable consumption) and Class Walking Clubs (to promote physical activity while reinforcing geography concepts). These give students a fun way to put their learning into practice. We discuss one of these campaigns later in this workshop.



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Part IV contains the physical education lessons. You can see from the titles that these lessons include reinforcement of nutrition messages as well as physical education. These lessons require a small space and can be implemented by a classroom teacher if necessary, so they can be done with your students even if you have no gym or PE teacher at your school.

Part V, the FitCheck, is a self-assessment tool for students that can be used once or multiple times throughout the year, if it matches your students' abilities and fits into your curriculum. The tool helps students identify, understand, and reflect on their own patterns of physical activity and inactivity. Students fill out a seven-day journal and translate their results into scores, which enable them to set goals for themselves. In parts VI and VII are nine microunits (four that are designed to be used with the FitCheck materials, and five that relate to other physical education topics). These are 5-minute lessons that cover a range of physical activity and nutrition topics. On days when no full-length *Eat Well & Keep Moving* physical education lesson is taught, a microunit can be presented at the beginning of class. The microunits are best taught sequentially, as a set, as they fit into your curriculum.

All the components of the *Eat Well & Keep Moving* program complement one another. Although each component can be used independently, the power of *Eat Well & Keep Moving* is in the integration of the components into a whole-school approach.

Lesson Components

- Teacher resource pages
- Lesson procedures
- Worksheets and activities
- Illustrations
- Charts and tables
- Eat Well cards and Keep Moving cards
- Strength and stretching diagrams

Each lesson includes teacher resource information, step-by-step lesson procedures with an estimate of the time it will take to complete the lesson, reproducible worksheets and pages (including answer sheets, materials lists for any activities, and references to extension activities), cards, and stretching diagrams, if needed for the lesson.

Eat Well & Keep Moving Health Goals: The Principles of Healthy Living

- Make the switch from sugary drinks to water.
- Choose colorful fruits and vegetables instead of junk food.
- Choose whole-grain foods and limit foods with added sugar.
- Choose foods with healthy fat, limit foods high in saturated fat, and avoid foods with trans fat.
- Eat a nutritious breakfast every morning.
- Be physically active every day for at least an hour.
- Limit TV and other recreational screen time to 2 hours or less per day.
- Get enough sleep to give the brain and body the rest they need.

Each lesson also addresses at least one of the basic messages of the program. Here are the eight basic messages again, the Principles of Healthy Living.

The lessons also emphasize the importance of eating a balanced diet.

Eating a variety of foods keeps our meals interesting and flavorful. It's also the key to a healthy and balanced diet because each food has a unique mix of nutrients—both macronutrients (carbohydrate, protein, and fat) and micronutrients (vitamins and minerals).

Vegetables, fruits, grains, protein, and dairy make up the five basic food groups, but not all options within these groups are equally beneficial or healthy, and some foods—especially those from plants—are needed in greater proportion than others.

The **Kid's Healthy Eating Plate** diagram that is featured in several *Eat Well & Keep Moving* lessons *(as well as the Additional Resources folder on this Web Resource)* provides a blueprint to help us build a balanced meal with the best choices from each group:

Along with filling half of our plate with colorful **vegetables** and **fruits**, split the other half between **whole grains** and **healthy protein**. Healthy protein

includes mostly plant-based options such as nuts, seeds, and beans, but poultry and fish are also excellent choices. Foods from the **dairy** group are needed in lower proportions than foods from the other groups, but milk and other dairy foods are common sources of calcium and vitamin D, so choose unflavored milk, plain yogurt, or other unsweetened dairy foods.

The Kid's Healthy Eating Plate also includes elements that are not part of the five food groups, but are additional important reminders for maintaining a healthy diet and lifestyle.

- Healthy oils (plant-based oils such as olive and canola oil) are a great source of healthy fat, and should be used when cooking or as dressing on a salad.
- Water should be the drink of choice at every meal and snack, as well as when staying active.
- Note that the Kid's Healthy Eating Plate does not contain sugary drinks, sweets, and other junk foods. These are not everyday foods and should only be eaten rarely, if ever.

Finally, just like choosing the right foods, incorporating physical activity into our day by staying active is part of the recipe for keeping healthy.

Now let's move on to discussing some of the classroom lessons in detail.

Eat Well & Keep Moving
Fruits and Vegetables Message

Choose colorful fruits and vegetables instead of junk food.

- Fruits and vegetables provide vitamins, minerals, and carbohydrate.
- Choose fruits and vegetables in a rainbow of colors (choose especially dark-green and orange vegetables).
- Getting 5 or more servings each day can reduce the risk of diabetes, heart disease, obesity, and possibly some cancers.

Each of the eight messages has details that you will want to remember. *(Read fruit and vegetable message and bullets.)* Dark-green and orange vegetables are important sources of nutrients, and eating them instead of junk food is a great way to get 5 or more servings per day. One lesson that reinforces this message is lesson 11: Chain Five. This is a lesson designed for fourth grade.

(Do Procedure for this lesson, steps 1 to 5 [with a pencil case as described], in the book. If you have pictures of dark-green, leafy vegetables and yellow-orange vegetables, you may do step 6 as well.)

Now take the worksheet titled Chain Five: Vitamins and Minerals out of your packet.

Worksheet 11.2

Vitamins and Minerals Chart

Name _____

TABLE 11.2 Vitamins and Minerals Chart

What's the nutrient?	Where can I get it?
Vitamin A	Carrots, sweet potatoes, greens, kale, spinach, broccoli, romaine lettuce, cantaloupes, apricots, papayas, mangoes
Vitamin C	Oranges, grapefruits, tangerines, cantaloupe, mangoes, papaya, strawberries, broccoli, bell peppers, tomatoes, sweet potatoes
Vitamin D***	Vitamin D–fortified unflavored milk, nondairy milks (soy, rice, almond)*, salmon, egg yolks
Vitamin E	Seed oils, canola oil, corn oil, soybean oil, almonds, sunflower seed kernels
Vitamin K	Green leafy vegetables such as cabbage, turnip greens, kale, parsley, and broccoli
Folate	Beans, green leafy vegetables, kale, spinach, yeast, soybeans, wheat germ, oranges, most fortified commercial breakfast cereals, and breads
B vitamins such as B_1 (thiamine), B_2 (riboflavin), B_3 (niacin)	100% whole-grain breads and cereals, whole grains (such as barley, quinoa, whole wheat), poultry, lean red meat**, plain yogurt, unflavored milk, eggs
Calcium	Unflavored milk, cheese, plain yogurt, cottage cheese, fortified nondairy milks*, kale, broccoli, greens, calcium-set tofu (bean curd), black-eyed peas, baked beans, bok choy
Potassium	Sweet potatoes, tomatoes, winter squash, peaches, apricots, cantaloupe, bananas, greens, avocados, spinach, dried beans (white beans, lentils, kidney beans), bran, peanuts, unflavored milk, plain yogurt, poultry, seafood, lean red meat**
Iron	Chicken, fish and shellfish, eggs, lean red meat**, 100% whole-wheat bread, dark leafy greens, lima beans, kidney beans, lentils, tofu
Zinc	Lean red meat**, poultry (especially dark meat), seafood, 100% whole-wheat bread, eggs, beans, nuts
Iodine	Seafood

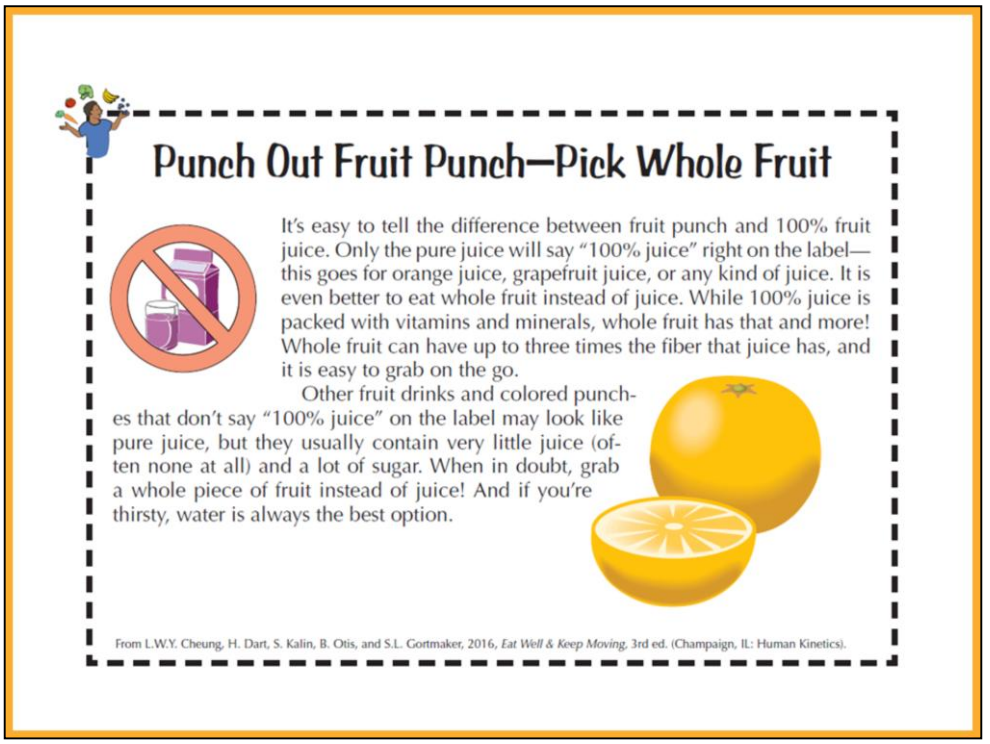
*Best choices do not have caffeine or sugar.

**Limit red meat; avoid bacon, cold cuts, and other processed meats.

***If you do not eat enough vitamin D–rich foods, or if you aren't regularly exposed to sunlight, talk to a doctor about the possible need to take a vitamin D supplement.

From L.W.Y. Cheung, H. Dart, S. Kalm, B. Otis, and S.L. Gortmaker, 2016, *Eat Well & Keep Moving*, 3rd ed. (Champaign, IL: Human Kinetics).

On worksheet 1, let's do part A. Here's the vitamins and minerals chart. This sheet could be done as an in-class activity with discussion afterward. *(Let them work on the sheet for a few minutes)*. OK, what's a food that's a good source of vitamin C? *(Write these on the board or flip chart.)* Vitamin A? *(And so on.)* At the end, you have a list of five fruits and vegetables. Variety. This is what you want to aim for every day. Five or more servings of fruits and vegetables and a variety of foods.



Punch Out Fruit Punch—Pick Whole Fruit

It's easy to tell the difference between fruit punch and 100% fruit juice. Only the pure juice will say "100% juice" right on the label—this goes for orange juice, grapefruit juice, or any kind of juice. It is even better to eat whole fruit instead of juice. While 100% juice is packed with vitamins and minerals, whole fruit has that and more! Whole fruit can have up to three times the fiber that juice has, and it is easy to grab on the go.

Other fruit drinks and colored punches that don't say "100% juice" on the label may look like pure juice, but they usually contain very little juice (often none at all) and a lot of sugar. When in doubt, grab a whole piece of fruit instead of juice! And if you're thirsty, water is always the best option.

From L.W.Y. Cheung, H. Dart, S. Kalin, B. Otis, and S.L. Gortmaker, 2016, *Eat Well & Keep Moving*, 3rd ed. (Champaign, IL: Human Kinetics).

Additional information for this lesson can be found on several of the Eat Well cards and Keep Moving cards in the Web Resource. Here is one example of a card that can provide additional information for the lesson. Another idea is to reproduce the card in a parent newsletter, explaining the unit of study and the goal of eating five or more fruits and vegetables a day for better health.

Eat Well & Keep Moving
Water Message

Make the switch from sugary drinks to water.

- Water is essential to human survival, optimal functioning, and health.
- Sugary beverages such as soda, sports drinks, energy drinks, and fruit drinks are filled with empty calories, meaning they provide many calories but almost none of the nutrients the body needs to stay healthy and grow strong.

Another nutrition message is to emphasize the importance of making water the beverage of choice, especially over sugary drinks.

Research suggests that consumption of sugar-sweetened beverages is associated with excess weight gain in children and adults. Sugary drinks and sweets have almost nothing in them that's healthy—they are simply packed with sugar. *Eat Well & Keep Moving* includes two lessons that focus on sugar-sweetened beverages, lesson 7: Sugar Water (grade 4) and lesson 19: Beverage Buzz (grade 5), and two lessons that further emphasize the importance of drinking water, lesson 8: Water Water Everywhere (grade 4) and lesson 20: Go for H_20 (grade 5).

(Do Procedure for lesson 19, step 2, with the teachers. Distribute worksheet, Where's the Sugar?)

Worksheet: Where's the Sugar?

TABLE 19.1 Beverage Count

	Soda—12 oz (355 ml) can (10 tsp of sugar)	Sports drink—16 oz (475 ml) bottle (7 tsp of sugar)	Fruit punch—7 oz (210 ml) pouch (7 tsp of sugar)
How many did you drink yesterday?			
How many did you drink the day before yesterday?			
Total drinks			

On worksheet 1, let's do part 1. How much soda, sports drink, fruit punch, or other sugary beverage did you drink over the past 2 days? Record your total in the beverage count table, and then calculate how many teaspoons of sugar you had from these drinks. *(Let them work on the sheet for a few minutes.)*

Were you surprised by how much sugar you consumed yesterday?

In the rest of the lesson, students evaluate their sugar intake in several ways: First, they measure sugar into paper cups. Then, in a homework assignment, they calculate how much sugar they consume from drinks each year, and then evaluate whether they need to make healthier choices and what healthier choices they could make.

This lesson also includes activities to make children aware of how the media entices people to consume sweetened beverages, and make them aware of the health effects of different beverages.

Eat Well & Keep Moving
Fat Message

Choose foods with healthy fat, limit foods high in saturated fat, and avoid foods with trans fat.

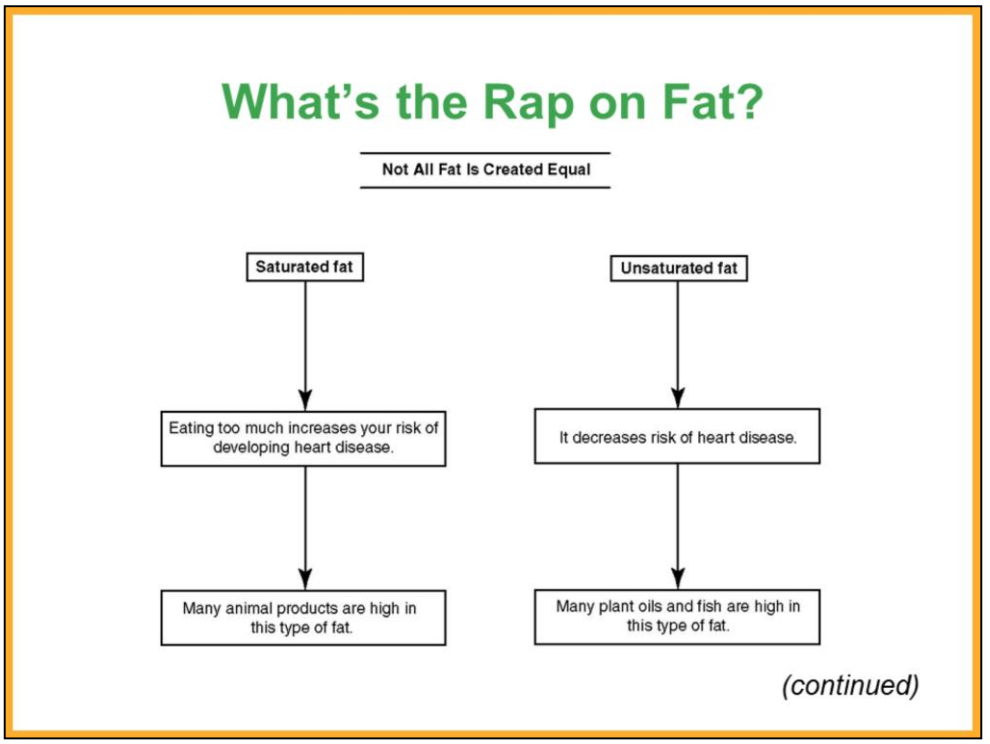
- Healthy fat can help lower the risk of heart disease and stroke.
- Unhealthy fat—including saturated fat and especially trans fat—increases the risk of heart disease and stroke.
- Avoid trans fat, since it raises the risk for heart disease in many ways and may increase the risk for diabetes.

Another nutrition message is to choose foods with healthy fat, limit foods high in saturated fat, and avoid foods with trans fat. Children need to learn that fat is an important part of the diet and that some types of fat are healthy, whereas others are not. A lot of snack foods and fast foods are high in saturated fat and trans fat, so children can consume a lot of these unhealthy kinds of fat without realizing it.

The healthy fat message is covered in several grade 4 lessons, including lesson 5: Fast-Food Frenzy and lesson 6: Snack Attack.

Today, we'll focus on a grade 5 lesson, lesson 18: Hunting for Healthy Fat.

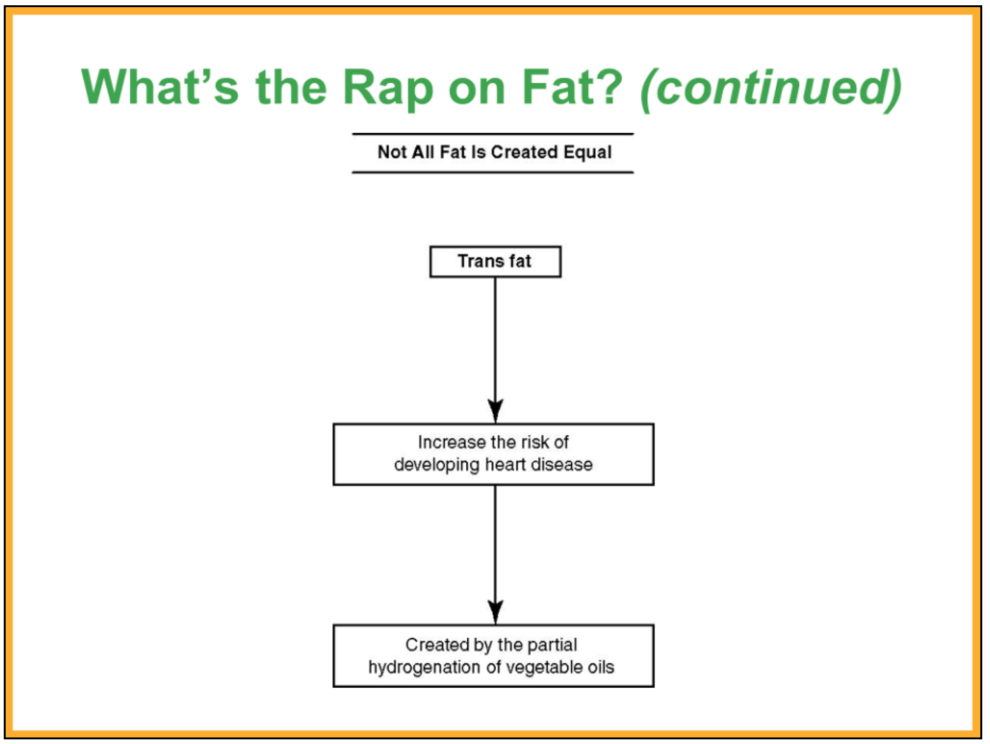
The background information on fat is important to understand, so you can share it with your students. Please read the background section in the lesson carefully. Then I will ask you questions to see what you learned. *(Give teachers about 5 minutes to read the passage.)*



(Use a piece of paper to cover up the bottom portion of this slide. Move the paper down to reveal the answers to the following questions. If you present this on a computer, you may want to animate or make this into three slides so that you can reveal pieces of the flow chart.)

What are the two categories of fat? Which one contributes to heart disease? Which one lowers the risk of heart disease? Which types of foods are high in saturated fat? Which types are high in unsaturated fat? What's the maximum proportion of calories that experts recommend we get from saturated fat?

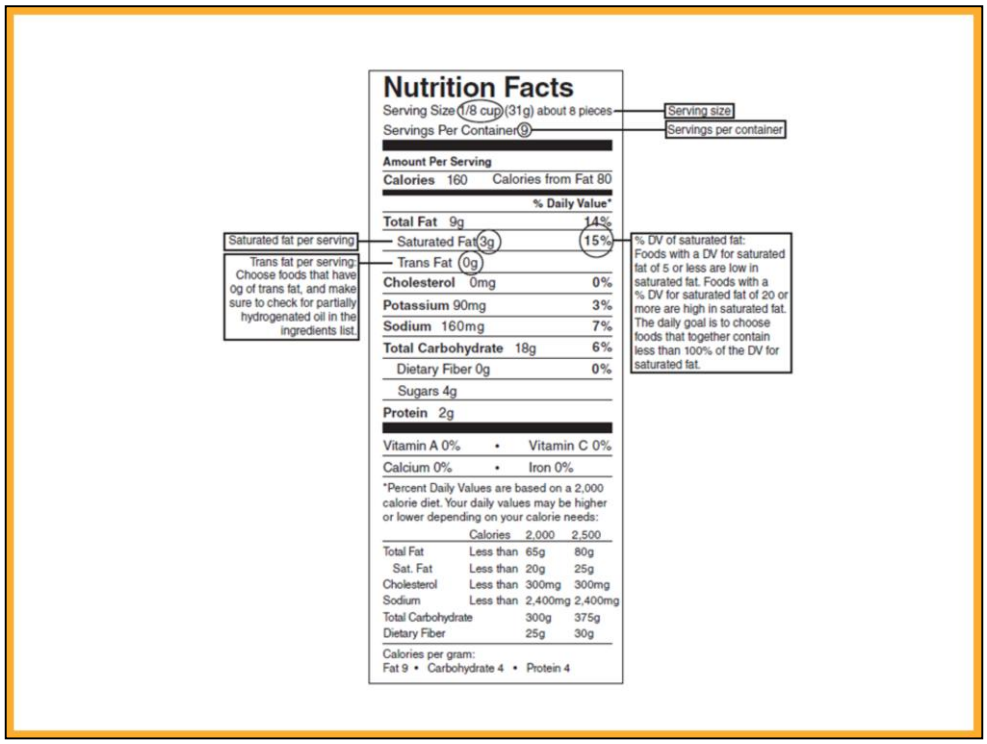
(Experts recommend getting no more than 10% of total calories from saturated fat.)



(Use a piece of paper to cover up the bottom portion of this slide. Move the paper down to reveal the answers to the following questions. If you present this on a computer, you may want to make this into three slides so that you can reveal pieces of the flow chart.)

Trans fat is formed through a commercial process called partial hydrogenation, which turns liquid plant fat into solid or semisolid fat. This is how some margarines are made; trans fat is also found in some commercial baked goods and crackers as well as processed and fast foods, especially fried foods.* Foods high in trans fat also have been found to increase the risk of heart disease.

*(*Note that at the time of publication, the FDA banned the use of partially hydrogenated oils in food products, giving manufacturers three years to comply with the decision. This messaging on avoiding trans fat from partially hydrogenated oils remains important guidance during the transitional period.)*



The tool we use in this lesson to identify unhealthy fats is the food label. (*Go over the items on the food label, highlighting serving size, calories per serving, saturated fat, and trans fat. Explain the % Daily Value.)* If the % Daily Value for a nutrient is 5% or less, that means the food is low in that nutrient. If the % Daily Value is 20% or more, that means the food is high in that nutrient.

The overall daily goal should be to select foods throughout the day that together have less than 100% of the Daily Value for saturated fat.

You'll notice that there is no % Daily Value for trans fat. That's because it is unclear whether there is any safe level of intake. Food labels do list the number of grams of trans fat per serving.

Keep in mind that products made with partially hydrogenated oils can still be labeled "0 grams trans fat" if the product contains less than 0.5 gram of trans fat per serving. These small amounts of trans fat can add up over the course of the day. That's why it's important to watch out for the words *partially hydrogenated vegetable oil* in the ingredients list and to choose products that do not contain partially hydrogenated oil.

Let's look at some examples of food labels to figure out where the saturated and trans fat are in some of the foods we eat. *(Distribute a collection of food labels from soups, crackers, cereals, canned fruits, chips, and so on. You may use the handout from the lesson.)* What foods contain more saturated fat?

Which foods contain trans fat? Can you find partially hydrogenated oil in any of the products that say they have 0 grams trans fat?

Students would use the lesson worksheet to organize their observations. Extensions include bringing in food labels from home and making a collage of food labels for products that are low in saturated fat and have no trans fat. Making healthy choices is the overall message.

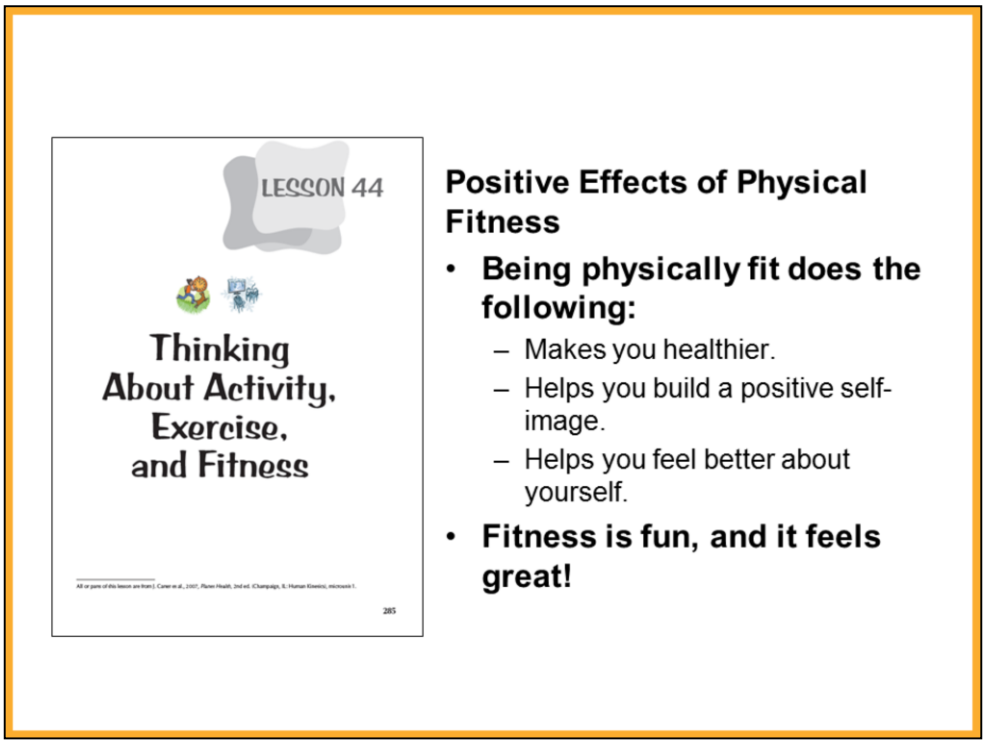
Eat Well & Keep Moving
Activity Message

Be physically active every day for at least an hour.

- Regular physical activity helps prevent unhealthy weight gain, obesity, and several chronic diseases.
- Children and teenagers need at least 60 minutes per day.
- This can include active free play, as well as structured activities that are age-appropriate, enjoyable, and offer variety. Any episode of moderate- or vigorous-intensity physical activity, however brief, counts toward the daily goal.

So we've looked at three of the nutrition messages and seen three classroom lessons, one for fourth grade and two for fifth grade. Now let's look at our activity message in greater detail. *(Read the bullets.)*

It's important to stress that any activity is better than none. Take the stairs, walk to the bus stop, walk down to the corner store, dance along with the music video, or play an active video game with friends, such as Dance, Dance Revolution or Wii Fit.



Lesson 44 is an example of a physical education microunit. It's a short lesson with one point: Any physical activity is better than none. This lesson gives you many short, direct talking points on the importance of physical activity and physical fitness, such as the Positive Effects of Physical Fitness. *(Read the bullets.)* "Being physically fit makes you healthier, helps you build a positive self-image, helps you feel better about yourself. Fitness is fun and it feels great!"

This and other microunits contain information that can be conveyed in the course of a PE class or perhaps during recess. There are also suggested questions for students at the end, if you have time for more discussion.

Some *Eat Well & Keep Moving* lessons call for you to *do* physical activity with your students in the classroom. These lessons introduce students to the various parts of the Safe Workout—a four-part workout that includes a warm-up, a fitness activity, a cool-down, and a cool-down stretch. The Safe Workout lessons also reinforce key nutrition concepts.

Eat Well & Keep Moving gives detailed instructions on how to conduct the Safe Workout, complete with simple stretching diagrams and suggestions for

how to set up your classroom to enable physical activity.

(Optional: To extend this training by leading teachers through the Safe Workout, see Module 5 in the Training 2 folder on this Web Resource.)

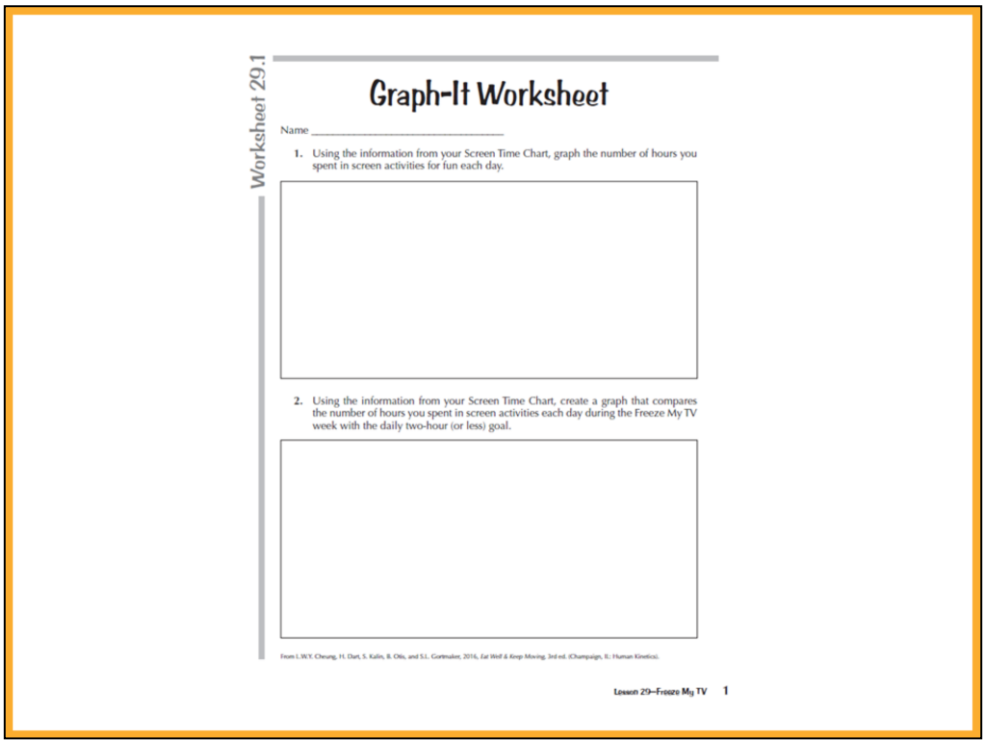
This message is about decreasing inactivity and sedentary behaviors, specifically recreational screen time and most notably TV viewing. Remember, TV viewing correlates very strongly with the occurrence of overweight in people of all ages, not just children.

The more television you watch, the less time you have to engage in physical activity or other healthy pursuits; the same goes for spending time online on your computer or smartphone for fun, text messaging, and playing video games.

Watching more television means watching more ads for unhealthy foods, and evidence suggests that this leads to consuming more calories. Such sedentary behavior combined with poor diet can lead to unhealthy weight gain.

Limit total recreational screen time to no more than 2 hours each day, whether it be a TV, computer, smartphone, or other handheld device—anything with a screen counts.

There are several lessons on decreasing TV viewing and total recreational screen time, and some of them suggest alternative activities. Let's look at an example of a classroom promotion, lesson 29: Freeze My TV. Students keep a journal, assembled from reproducible pages in the Web Resource, by keeping track and trying to limit the amount of television they watch. Each day students answer questions in their journals, such as "Write a paragraph about what you did during day 1 and day 2 when you weren't watching television. How do you think you will spend this time for the rest of the week?"



Worksheet 29.1

Graph-It Worksheet

Name _____

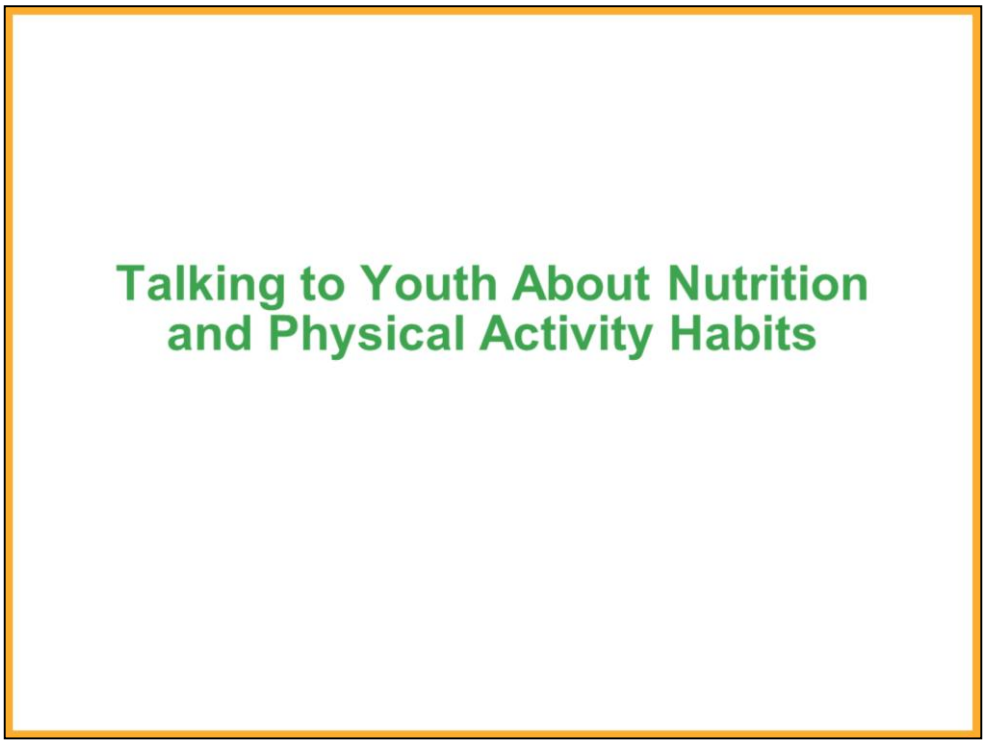
1. Using the information from your Screen Time Chart, graph the number of hours you spent in screen activities for fun each day.

2. Using the information from your Screen Time Chart, create a graph that compares the number of hours you spent in screen activities each day during the Freeze My TV week with the daily two-hour (or less) goal.

From L.W.Y. Cheung, H. Dart, S. Kalin, B. Olin, and S.L. Gortmaker, 2016, *Eat Well & Keep Moving*, 3rd ed. (Champaign, IL: Human Kinetics).

Lesson 29—Freeze My TV 1

After keeping track of the hours they have spent watching TV, students can complete several graphing activities with their data. Here's one example from Lesson 29. *(Read the question.)* If you look at the other reproducibles in this lesson, you'll see several other examples. Obviously there are great connections to math class in this lesson.



(Before the workshop, print out copies of the four questions on the next slide—one for each group of four participants. Cut them up and put them in envelopes, one for each group. The subsequent slide offers additional questions, if you would like to give more than one question per group, or if you have a large number of participants.) When you introduce the curriculum to students, you may get asked some questions about why they're doing this. As you know, kids at this age want to know why things are important and how things are relevant to their lives. So, what we'll do next is a role-playing activity where you'll get to answer some of these questions. I'll break you up into groups of four. Each group will get an envelope. Each person should choose a question from the envelope. You will take turns being the student (asking your question to one of the other members of the group). Everyone should get a chance to ask and answer a question.

What would you say if your students ask . . .

- **Why do we need to do these *Eat Well & Keep Moving* lessons?**
- **Is fat bad for me?**
- **I don't like exercise. Why is it important?**
- **I like to watch TV. Why do I need to stop watching TV?**

(continued)

(After the groups have had a chance to do the role-playing, display this slide and ask people to share how they would handle these questions. Here are some comments that might help you facilitate the conversation.)

- *Eat Well & Keep Moving* will teach you about healthy eating and physical activity. When you eat well and are physically active, you feel better and are prepared to learn. You are at the age now that you're starting to make your own choices about where to eat and what to eat and how you spend your time. The *Eat Well & Keep Moving* lessons will help you reflect on your choices and give you practice at making healthy ones. The things you do now will affect your health now and in the future.
- There are different types of fat in the foods we eat. Some types are healthy for you, and some types are unhealthy. Plant-based foods, including plant oils (such as olive, canola, soybean, corn, sunflower, and peanut oils), nuts, and seeds, are natural sources of healthy fat, as are fish and shellfish. Healthy fat can help lower the risk of heart disease, and stroke. Unhealthy fat—including saturated fat—increases the risk of heart disease and stroke. Most foods that are high in saturated fat come from animals, including dairy fat, the fat in meat, and lard. However, even a few healthy plant-based foods and fish contain small amounts of saturated fat, so we can't completely eliminate it from our diet. As a general rule, we should keep our intake of saturated fat as low as possible, opting for healthy foods like salmon, almonds, and avocados, instead of hamburgers and cheesy pizza. The worst type of unhealthy fat is trans fat, which raises the risk of heart disease, stroke, and possibly diabetes. Trans fat is formed when healthy vegetable

oils are partially hydrogenated (a process that makes the oil solid or semisolid and makes the fat more stable for use in packaged foods). Foods with trans fat and partially hydrogenated oils should be avoided.

- When you say you don't like exercise, what do you mean exactly? Do you like to dance? Do you like to swim or ride a bike? All types of physical activity have health benefits. It can help you improve your mood. It can make you stronger and feel good about yourself. I bet the lessons will give you an opportunity to think about some physical activities you like to do.
- I like to watch TV too. It can be educational and very entertaining. *Eat Well & Keep Moving* doesn't encourage you to stop watching TV. It teaches you to think about how much time you spend watching TV and to limit your screen time to 2 hours or less per day. If you're watching more than 2 hours per day, the *Eat Well & Keep Moving* lessons will help you set goals for trading screen time for active time, like riding your bike instead of watching TV.

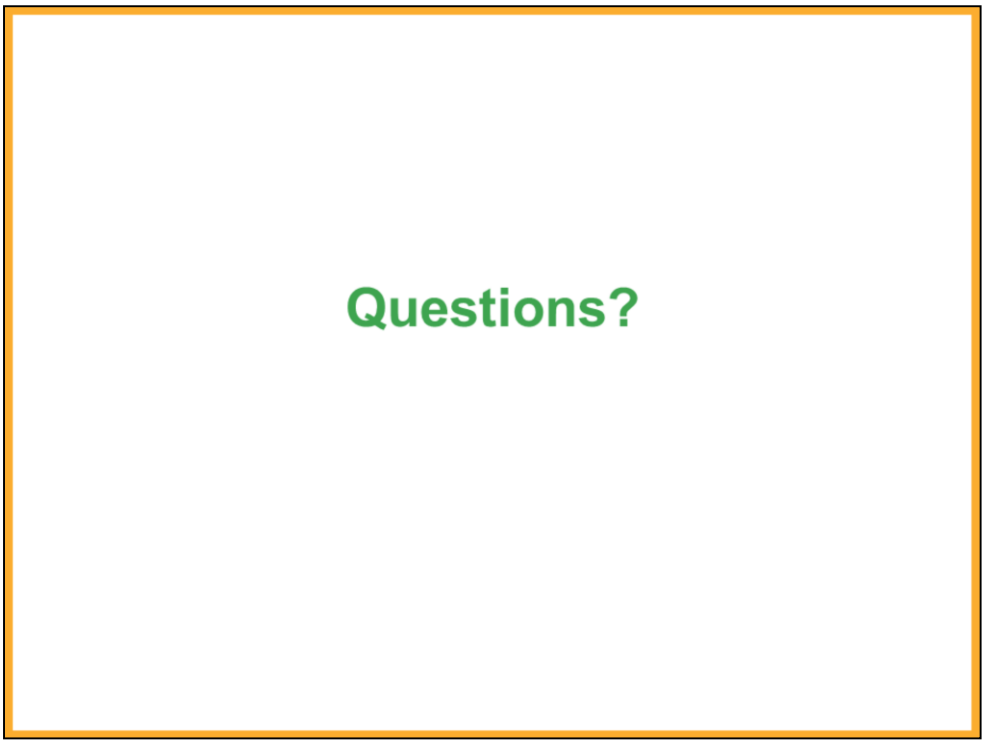
What would you say if your students ask . . . *(continued)*

- **Are soda and candy bad for me?**
- **Vegetables are nasty! Why do I need to eat them?**
- **The cafeteria food is awful! How can I eat a healthy lunch at school?**
- **It's not safe to play outside where I live. My mom tells me to stay at home and watch TV. What can I do to get more physical activity?**

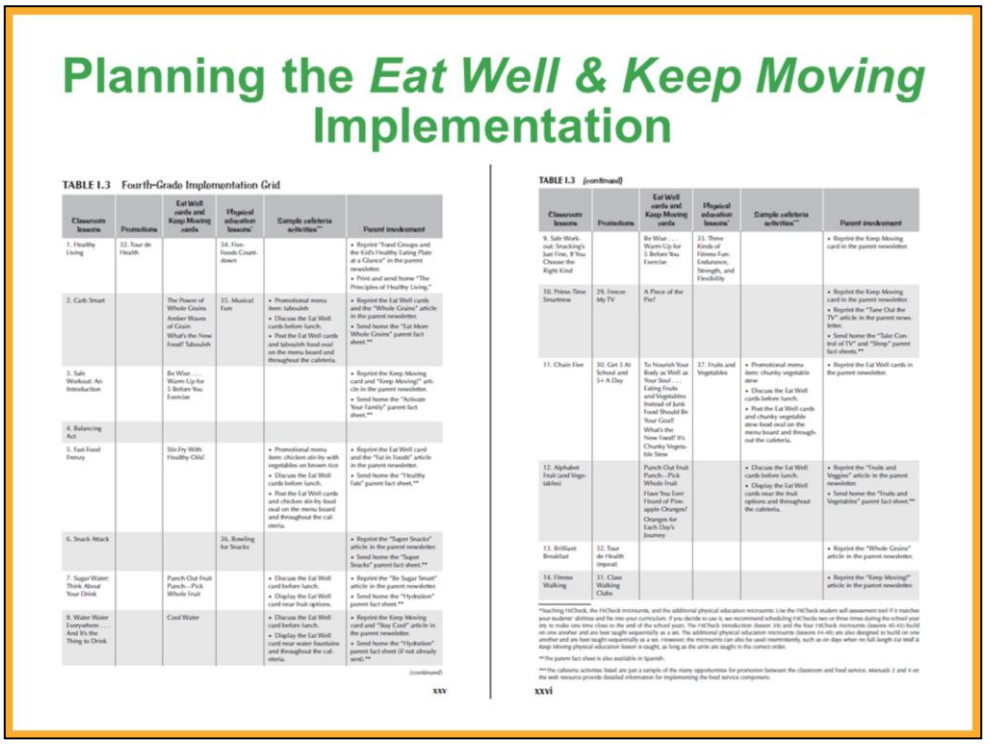
(Here are more questions and comments that might help you facilitate the conversation.)

- Sugar can cause cavities in your teeth. Most sugary drinks are just sugar and water, and they have more sugar in them than you think: A regular 20-ounce bottle of soft drink has 16 teaspoons of sugar in it! Candy bars are also loaded with sugar and unhealthy saturated fat, but they're skimpy on stuff that's good for you. The lessons in *Eat Well & Keep Moving* will show you how healthier drinks and snacks can give you energy and a lot of nutrients to grow on—and still satisfy your sweet tooth.
- Vegetables are great choices for good health—and I bet if you keep trying them, you'll find some that you like. They're rich in vitamins, minerals, and fiber—all things that we need to keep our bodies running well. Maybe you've tried only canned vegetables and found that you don't like them. Fresh and frozen vegetables often taste better than canned vegetables, so try fresh and frozen versions. The more colorful a collection of vegetables you can eat, the better! The lessons in *Eat Well & Keep Moving* will give you lots of reasons why it's great to snack on crunchy red, yellow, and orange bell peppers; baby carrots; broccoli trees; tiny grape tomatoes; and other vegetables.
- The school is working hard to try to make lunches more healthy—and to make them taste better, too. As part of *Eat Well & Keep Moving*, we'll be working with our cafeteria to highlight the healthiest options. Meanwhile, there are a few things you can do to make sure you're getting the healthiest possible lunch at school. When you go through the lunch line, don't skip the side dishes. Main dishes should be eaten with sides of fruit, green salad, vegetables, and water to balance out the meal.

- If you are watching television, try doing a workout while you watch. We'll be learning how to do a safe workout as part of *Eat Well & Keep Moving*, and you'll find that you can do all of the pieces of it at home without any special equipment—and you can do them in less time than a half-hour TV show. Even better—how about turning off the TV, putting on the radio, and showing off your dancing moves? You can dance by yourself or with a friend. The key is to dance hard enough to work up a sweat and make your heart beat faster.



Any questions? Thank you for attending this workshop.



Planning the *Eat Well & Keep Moving* Implementation

TABLE 1.3 Fourth-Grade Implementation Grid

Classroom lessons	Promotions	Eat Well cards and Keep Moving cards	Physical education lessons*	Sample cafeteria activities**	Parent involvement
1. Healthy Living	32. Tour de Health		34. Five-Foods Count-down		• Reprint "Food Groups and the Kid's Healthy Eating Plate at a Glance" in the parent newsletter. • Print and send home "The Principles of Healthy Living."
2. Carb Smart		The Power of Whole Grains Amber Waves of Grain What's the New Food? Tabouleh	35. Musical Tam	• Promotional menu item: tabouleh • Discuss the Eat Well cards before lunch. • Post the Eat Well cards and tabouleh food oval on the menu board and throughout the cafeteria.	• Reprint the Eat Well cards and the "Whole Grains" article in the parent newsletter. • Send home the "Eat More Whole Grains" parent fact sheet.**
3. Safe Workout: An Introduction		Be Wise . . . Warm Up for 5 Before You Exercise			• Reprint the Keep Moving card and "Keep Moving!" article in the parent newsletter. • Send home the "Activate Your Family" parent fact sheet.**
4. Balancing Act					
5. Fast-Food Frenzy		Stir-Fry With Healthy Child		• Promotional menu item: chicken stir-fry with vegetables on brown rice • Discuss the Eat Well cards before lunch. • Post the Eat Well cards and chicken stir-fry food oval on the menu board and throughout the cafeteria.	• Reprint the Eat Well card and the "Eat in Foods" article in the parent newsletter. • Send home the "Healthy Fate" parent fact sheet.**
6. Snack Attack			36. Bowling for Snacks		• Reprint the "Super Snacks" article in the parent newsletter. • Send home the "Super Snacks" parent fact sheet.**
7. Sugar Water: Think About Your Drink		Punch Out Fruit Punch—Pick Whole Fruit		• Discuss the Eat Well card before lunch. • Display the Eat Well card near fruit options.	• Reprint the "Be Sugar Smart" article in the parent newsletter. • Send home the "Hydration" parent fact sheet.**
8. Water Water Everywhere . . . And It's the Thing to Drink		Cool Water		• Discuss the Eat Well card before lunch. • Display the Eat Well card near water fountains and throughout the cafeteria.	• Reprint the Keep Moving card and "Stay Cool" article in the parent newsletter. • Send home the "Hydration" parent fact sheet (if not already sent).**

(continued)

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TABLE 1.3 *(continued)*

Classroom lessons	Promotions	Eat Well cards and Keep Moving cards	Physical education lessons*	Sample cafeteria activities**	Parent involvement
9. Safe Work-out: Snacking's Just Fine, If You Choose the Right Kind		Be Wise . . . Warm Up for 5 Before You Exercise	33. Three Kinds of Fitness Fun: Endurance, Strength, and Flexibility		• Reprint the Keep Moving card in the parent newsletter.
10. Prime-Time Smartness	29. Freeze My TV	A Piece of the Pie?			• Reprint the Keep Moving card in the parent newsletter. • Reprint the "Tune Out the TV" article in the parent news letter. • Send home the "Take Control of TV" and "Sleep" parent fact sheets.**
11. Chain Five	30. Get 3 At School and 5+ A Day	To Nourish Your Body as Well as Your Soul . . . Eating Fruits and Vegetables Instead of Junk Food Should Be Your Goal! What's the New Food? It's Chunky Vegetable Stew	37. Fruits and Vegetables	• Promotional menu item: chunky vegetable stew • Discuss the Eat Well cards before lunch. • Post the Eat Well cards and chunky vegetable stew food oval on the menu board and through-out the cafeteria.	• Reprint the Eat Well cards in the parent newsletter.
12. Alphabet Fruit (and Vegetables)		Punch Out Fruit Punch—Pick Whole Fruit Have You Ever Heard of Pineapple Oranges? Oranges for Each Day's Journey		• Discuss the Eat Well cards before lunch. • Display the Eat Well cards near the fruit options and throughout the cafeteria.	• Reprint the "Fruits and Veggies" article in the parent newsletter. • Send home the "Fruits and Vegetables" parent fact sheet.**
13. Brilliant Breakfast	32. Tour de Health (repeat)				• Reprint the "Whole Grains" article in the parent newsletter.
14. Fitness Walking	31. Class Walking Clubs				• Reprint the "Keep Moving!" article in the parent newsletter.

*Teaching HiCheck, the HiCheck microunits, and the additional physical education microunits: Use the HiCheck student self-assessment tool if it matches your students' abilities and fits into your curriculum. If you decide to use it, we recommend scheduling HiChecks two or three times during the school year (try to make one time close to the end of the school year). The HiCheck introduction (lesson 39) and the four HiCheck microunits (lessons 40–43) build on one another and are best taught sequentially as a set. The additional physical education microunits (lessons 44–48) are also designed to build on one another and are best taught sequentially as a set. However, the microunits can also be used intermittently, such as on days when no full-length *Eat Well & Keep Moving* physical education lesson is taught, as long as the units are taught in the correct order.

**The parent fact sheet is also available in Spanish.

***The cafeteria activities listed are just a sample of the many opportunities for promotion between the classroom and food service. Manuals 2 and 4 on the web resource provide detailed information for implementing the food service components.

xxvi

(Optional planning activity.)

At this point, we'll spend some time planning. *(Depending on the number of teachers participating at your school, and the grade levels, and the availability of PE teacher, and so on, this will vary from one workshop to another. This section needs to be tailored to your setting.)* There's a very useful planning tool at the beginning of the book. Notice (on the slide) that this implementation grid (this is 4th grade, the next page in the text is for 5th grade) relates each lesson to possible connections with classroom promotions, cards, PE lessons, and possible involvement of cafeteria staff and parents.

Please choose one lesson that appeals to you and that you think you could use in your classroom soon. Take 15 minutes to read all about the lesson, and then (in groups of 3 or so) each person should take 3 minutes to present the lesson they choose to the others in their group.

(At the end of this time, it's good to have a whole-group discussion about implementing Eat Well & Keep Moving *at this school. How many teachers will participate? Can they trade classrooms and share materials? Are there possible collaborations? Any all-school events that may benefit from* Eat Well & Keep Moving *messages? This part is very much dependent on the situation at your school.)*