5th GRADE

Children's Power Play! Campaign

CHAMPIONS for CHANGE
Network for a Healthy California

School
Idea & Resource Kit

Helping Students Power Up with
Fruits, Vegetables, and Physical Activity

POWER PLAY

INTRODUCTION

About the *Children's Power Play! Campaign*

The *Network for a Healthy California—Children's Power Play! Campaign (Campaign)* inspires and empowers California's low-income 9- to 11-year-old children to eat 3 to 5 cups of fruits and vegetables and get at least 60 minutes of physical activity every day. This statewide social marketing initiative is led by the California Department of Public Health's *Network for a Healthy California* to improve children's short-term health and reduce their long-term risk of serious health problems like obesity, type 2 diabetes, heart disease, hypertension, and certain types of cancer. The *Campaign* was developed in collaboration with the California Department of Education and California Department of Food and Agriculture.

The *Campaign's* components include educational lessons in school classrooms and community youth organizations; promotional activities in schools, youth organizations, and the community; and media and public relations activities in the community. These activities are implemented through the 11 *Regional Networks for a Healthy California (Regional Networks)*. The *Regional Networks* offer free training, support, and materials to eligible local organizations and help bring together agencies and resources within the region. Find your *Regional Network* by visiting **www.networkforahealthycalifornia.net/rn**. Organizations based outside Caifornia and those that do not serve children from low-income families can download the *Idea & Resource Kits* by visiting **www.networkforahealthycalifornia.net/powerplay**. A variety of materials are also available to order at-cost from the *Network for a Healthy California*'s online catalog at **www.championsforchangematerials.net**.

Overview of the *School Idea & Resource Kit*

You've probably noticed that kids today are more likely to be overweight, eat unhealthy foods, and be inactive. This may impact how ready they are to learn or how they feel about themselves. You can help change that! The *School Idea & Resource Kit (Kit)* helps you become a Champion for Change in your school. Using the *Kit*, you can make a positive impact on your students' health while teaching your core academic subjects. The *Kit* features 10 activities focused on fruits, vegetables, and physical activity. The activities are linked with California's Content Standards in English-Language Arts, Mathematics, and Health (see page 3). They align with the California Department of Education's Nutrition Competencies for California's Children. The *Kit* has been evaluated and proven to improve kids' knowledge, skills, and confidence related to fruits, vegetables, and physical activity.

The *Campaign* offers both a fourth-grade and a fifth-grade *Kit*. The two *Kits* are designed to complement one another, with the fifth-grade *Kit* introducing new concepts while reinforcing the concepts in the fourth-grade *Kit*. Other materials available to schools include student workbooks, *Power Up for Learning: A physical activity supplement to the School Idea & Resource Kits,* the *Children's Power Play! Campaign's* parent brochure, *Kids…Get Cookin'!* cookbook, posters, *Harvest of the Month,* and more.

You do not need to be a nutrition expert to use the *Kit*. Simply review the background information and, if necessary, take advantage of the additional resources referred to in the Appendix. Before you begin using the *Kit's* activities, take a look at the tips in Create a Healthy Classroom on page 6 to learn how you can support the health of your students through your words and actions.

BACKGROUND

The Basics of Nutrition and Physical Activity

You don't need to be an expert to convey the importance of eating healthfully and being physically active to your students! Here are a few basics that will give you a general understanding of these concepts as they relate to both adults and children. This overview will help you to be more comfortable conducting nutrition education and physical activity lessons. To learn more about the 2005 *Dietary Guidelines for Americans* and find ways to make healthy food and physical activity choices, go to **www.health.gov/dietaryguidelines** and **www.mypyramid.gov**.

The food and physical activity choices you make every day affect your health—how you feel today, tomorrow, and in the future. The science-based 2005 *Dietary Guidelines for Americans* highlight how to make smart choices from every food group, get the most nutrition out of your calories, and find your balance between food and physical activity. The best way to give your body the balanced nutrition it needs is by eating a variety of nutrient-packed foods every day and staying within your daily calorie needs. A healthy eating plan is one that:

- Emphasizes fruits, vegetables, whole grains, and fat free or lowfat milk and milk products.
- Includes lean meats, poultry, fish, beans, eggs, and nuts.
- Is low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars.

Regular physical activity is important for your overall health and fitness, and helps you manage your body weight. Here are a few physical activity recommendations that pave the way to a healthier you:

- Do a minimum of 150 minutes of moderate-intensity aerobic activity a week.
- Also do muscle strengthening activities on two or more days a week.
- Increasing the intensity or the amount of time that you are physically active can have even greater health benefits and may be needed to manage body weight.
- Children and teenagers should be physically active for at least 60 minutes every day.

A healthy, balanced diet that includes plenty of fruits and vegetables and regular physical activity are major investments in your life. In fact, healthy eating and physical activity may reduce your risk of many serious health problems like obesity, hypertension, type 2 diabetes, osteoporosis, heart disease, hypertension, and certain types of cancer, and increase your chances for a longer life.

The Importance of Fruits and Vegetables

Fruits and vegetables give you many of the nutrients that you need for good health: vitamins, minerals, dietary fiber, water, and healthy phytochemicals. Some are sources of vitamin A, while others are rich in vitamin C, folate, or potassium. Almost all fruits and vegetables are naturally low in fat and calories, and none have cholesterol, making them a sensible part of your daily meals and snacks.

For children, fruits and vegetables are sources of nutrients that are essential for growth and development, such as vitamin A, vitamin C, folate, and dietary fiber. By establishing the habit of eating fruits and vegetables early in life, children can get a head start in reducing their future risk of serious health problems, especially obesity, type 2 diabetes, heart disease, stroke, and certain types of cancer.

The Importance of Physical Activity

Physical activity helps you feel good, be more productive, and sleep better. Physical activity is also good for your health. It helps you achieve and maintain fitness and lowers your chronic disease risk. Children and adolescents benefit from activity, too. It is recommended that they get at least 60 minutes of moderate to vigorous physical activity every day.

Regular physical activity in childhood and adolescence builds strength and endurance, helps build healthy bones and muscles, helps manage weight, reduces anxiety and depression, and improves blood pressure and cholesterol levels. Positive experiences with physical activity at a young age help lay the foundation for being regularly active throughout life.

Adapted from: "Finding Your Way to a Healthier You: Based on the *Dietary Guidelines for Americans*," U.S. Department of Health and Human Services, U.S. Department of Agriculture; available at **www.health.gov/dietaryguidelines** and *2008 Physical Activity Guidelines for Americans*, U.S. Department of Health and Human Services; available at **www.health.gov/paguidelines**.

Consider These Facts

Children are not eating enough fruits and vegetables or engaging in enough physical activity.

- In California, 9- to 11-year-old children eat an average of 3.0 servings or 2.2 cups of fruits and vegetables on a typical school day, significantly below recommended consumption levels (3-5 cups of fruits and vegetables).[1]
- More than half (55 percent) of California's 9- to 11-year-old children fail to meet the daily physical activity guideline (60 minutes or more of moderate and vigorous physical activity).[2]
- Fewer than one in three (28.5 percent) California fifth graders achieved the Healthy Fitness Zone in all six areas measured by the 2007-2008 California Physical Fitness Test.[3]

Poor nutrition and low levels of physical activity have significant consequences among children.

- Inadequate nutrition and poor diet are major causes of impaired cognitive development, are associated with poor educational performance among low-income children, and also contribute to obesity, anemia, and susceptibility to lead poisoning.[4]
- Children engaged in daily physical education show a more positive attitude toward school as compared to their counterparts who do not.[5]
- Obesity rates have doubled for children and tripled among adolescents over the last two decades and continue to rise.[6] In California, the rise in overweight among 9- to 11-year-old children parallels the national trend, increasing from 15 percent in 1999 to 22 percent in 2005.[7,8]
- Obesity increases the risk of high blood cholesterol, high blood pressure, asthma, and type 2 diabetes while still in childhood.[9]

Establishing healthy eating and activity habits in childhood can help prevent problems in adulthood.

- About half of overweight children or teens will be obese in adulthood.[10,11]
- Physical activity tends to decline with age, with the steepest decline between the ages of 13 and 18.[12]

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[1] California Department of Public Health. (2007). *California Children's Healthy Eating and Exercise Practices Survey: 2005 Data Tables* (Table 2 & 2a). Retrieved February 6, 2009 from http://www.cdph.ca.gov/programs/cpns/Pages/2005CalCHEEPSDataTables.aspx

[2] California Department of Public Health. (2007). *California Children's Healthy Eating and Exercise Practices Survey: 2005 Data Tables* (Table 54). Retrieved February 6, 2009 from http://www.cdph.ca.gov/programs/cpnsPages/2005CalCHEEPSDataTables.aspx

[3] California Department of Education. (2009). 2007-2008 California Physical Fitness Report. Retrieved August 26, 2009 from http://www.cde.ca.gov/ta/tg/pf/pftresults.asp

[4] Center on Hunger, Poverty and Nutrition Policy. (1998). *Statement on the link between nutrition and cognitive development in children 1998* (4th edition). Medford, Mass: Tufts University, School of Nutrition.

[5] Pollatschek J.L. & O'Hagen F.J. (1989, September). An investigation of the psycho-physical influences of a quality daily physical education programme. *Health Education Research, 4*, 341-350.

[6] National Center for Health Statistics. *Health, United States, 2006: With chartbook on trends in the health of Americans*. (Table 74). Hyattsville, MD: 2006.

[7] Keihner A, Foerster S, Sugerman S, Oppen M, Hudes M. *A Special Report on Policy Implications from the 1999 California Children's Healthy Eating and Exercise Practices Survey*. Sacramento, CA. Available at http://www.cdph.ca.gov/programs/cpns/documents/cpns-reu-policyreport72502.pdf: The California Endowment; 2002.

[8] California Department of Public Health. (2007). *California Children's Healthy Eating and Exercise Practices Survey: 2005 Data Tables* (Table 66). Retrieved February 6, 2009 from http://www.cdph.ca.gov/programs/cpns/Pages/2005CalCHEEPSDataTables.aspx

[9] 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.

[10] Whitaker, R.C., Wright, J.A., Pepe, M.S., Seidel, K.D., & Dietz, W.H. (1997). Predicting obesity in young adulthood from childhood and parental obesity. *The New England Journal of Medicine, 337*, 869-873.

[11] Dietz, W.H. (1998). Childhood weight affects adult morbidity and mortality. The Journal of Nutrition, 128, 411S-414S.

[12] Sallis JF. Age-related decline in physical activity: a synthesis of human and animal studies. Med Sci Sports Exerc, 2000 Sep; 32 (9): 1598-600.

Power Survey

LEARNING OBJECTIVES

After completing this activity, students will be able to:

- Define "fruit," "vegetable," and "physical activity."
- State the recommended cups of fruits and vegetables children should be eating and the recommended minutes of physical activity they should engage in every day.
- Identify and graph the current nutrition and physical activity related habits and attitudes of the class.

LINKS TO CONTENT STANDARDS

- Statistics, Data Analysis, and Probability 1.0
- Listening and Speaking Strategies 1.0
- Nutrition and Physical Activity 1.0, 5.0

READY

Students work in groups of 6-7, using a worksheet to survey each other about their nutrition and physical activity related habits and attitudes. When group surveys are completed, students work as a class to quantify the results using pie charts. Then students analyze the results to make an informal assessment of where they are in relation to the fruit and vegetable and physical activity recommendations.

SET

- Review Power Survey, Worksheet 1.
- Draw nine blank pie charts on the board. Divide each pie chart into sections so there is one section for each student in the class. Label each pie chart (e.g., Q1. Stronger bones & teeth, Q2. Physically active after school, etc.)

TIME

- Prep — 10 minutes
- Activity — 50 minutes

MATERIALS

- Student workbooks

Deciding whether something is a fruit or a vegetable can be tricky, since they can be defined by their botanical parts or their common culinary usage. This explains why a tomato is technically a fruit (it has seeds), but is usually thought of as a vegetable.

These are the simple definitions based on plant parts:

- A fruit is the part of a plant that you can eat that contains seeds, such as an apple, pear, or strawberry.
- A vegetable is the stem, leaf, or root of a plant that you can eat, such as lettuce, carrots, or asparagus.

The following are fruits by botanical definition, but we call them vegetables in the *Children's Power Play! Campaign*: tomatoes, avocados, pumpkin, squash, cucumber, green beans, peppers, and eggplant.

- Physical activity is a game, sport, exercise, or other action that involves moving your body, especially when it makes your heart beat faster. The *Children's Power Play! Campaign* calls this "power play."

Power Survey

GO

1. Review survey process.

- Explain to students that this activity will help them learn more about their own and their classmates' nutrition and physical activity related habits and attitudes.
- Briefly discuss the basic definitions of fruit, vegetable, and physical activity.
- Tell your students that kids their age should eat 3 to 5 cups of fruits and vegetables and get at least 60 minutes of physical activity every day.
- Create small groups of 6–7 students.
- Direct students to turn to Power Survey, Worksheet 1 in their workbooks. Review the directions at the top of the worksheet.

2. Students survey classmates.

- Allow students about 10 minutes to conduct the surveys in their groups. When students have completed the survey, ask the *Recorder* to add the number of "yes" answers for each question.

3. Chart student responses.

- Have each *Recorder* report the number of "yes" answers for each question and fill in the appropriate number of pie wedges on that question's chart.
- Complete one pie chart for each of the nine questions.

4. Discuss students' findings.

- When the pie charts are completed, review the results with the class. Then lead a discussion based on the pie charts.
  - According to the chart, do most of you eat fruits and vegetables for snacks (Q4)? Why or why not?
  - According to the chart, do most of you think eating 3 to 5 cups of fruits and vegetables every day is easy (Q5)? Why or why not?
  - According to the chart, do most of you like the taste of a lot of different fruits and vegetables (Q6)? Why or why not?
  - According to the chart, do most of you usually do something physically active after school (Q2)? Why or why not?
  - According to the chart, do most of you think it's easy to get at least 60 minutes of physical activity every day (Q8)? Why or why not?
- Conclude the activity by explaining that in the upcoming weeks students will be learning new ways to eat more fruits and vegetables and to get at least 60 minutes of physical activity every day. They also will be discussing why both are important. You may want to revisit this activity at a later date and compare the results with today's results. Be sure to save these results, so that you can compare them when you repeat the activity later.

GO FARTHER

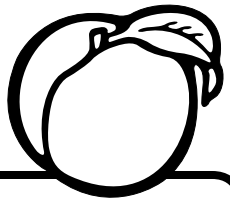
- Have students calculate percentages for each pie chart.
- Students can use the survey questions with another class, create new charts of the responses, and compare their class charts with the charts for the other class.
- Students can also use the survey questions with family members and begin a discussion at home of why eating fruits and vegetables and getting at least 60 minutes of physical activity every day is important.
- If you have access to computers, show students how to create pie charts on the computer.

Name _____ Date _____

WORKSHEET 1

Power Survey

- Pick one person in your group to be the *Surveyor*—the one who asks the questions.
- Pick someone else to be the *Recorder*—the one who keeps track of the answers.
- The *Surveyor* reads each question out loud. For each question, ask everyone in the group to raise their hands if they want to answer "yes." Don't forget to include the *Surveyor* and the *Recorder*. The *Surveyor* counts the number of hands that are raised.
- The *Recorder* writes the number of "yes" answers in the question's box.
- Example: The *Surveyor* asks, "Do you eat fruits and vegetables for snacks?" Four students raise their hands to say "yes." The *Recorder* writes "4" in that question's box.



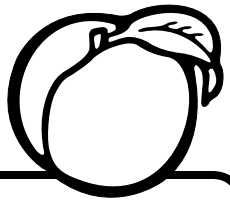
1 **Do you think eating fruits and vegetables can help give you stronger bones and teeth?**	2 **Do you usually do something physically active after school?**	3 **Do you think fruits and vegetables can help make you stronger?**
4 **Do you eat fruits and vegetables for snacks?**	5 **Do you think eating 3 to 5 cups of fruits and vegetables every day is easy?**	6 **Do you like the taste of a lot of different fruits and vegetables?**
7 **Do you think being physically active can help you pay attention in school?**	8 **Do you think it's easy to get at least 60 minutes of physical activity every day?**	9 **Do you think physical activity can help you feel more energetic?**

Nombre _____ **Fecha** _____

HOJA DE TRABAJO

Encuesta de Poder

- Selecciona una persona en tu grupo que sea el *Encuestador*—el que hace las preguntas.
- Seleccione a alguien que sea el *Contador*—el que mantiene el récord de las respuestas.
- El *Encuestador* lee cada pregunta a voz alta. Para cada pregunta, pide que todos los del grupo levanten la mano si desean contestar "sí". No olviden de incluir al *Encuestador* y al *Contador*. El *Encuestador* cuenta el número de manos que se han levantado.
- El *Contador* escribe el número de respuestas "sí" en el cuadro de la pregunta.
- Por ejemplo: El *Encuestador* pregunta, "¿Comiste frutas y vegetales en tus bocadillos?" Cuatro estudiantes levantan la mano para indicar que "sí". El *Contador* escribe "4" en el cuadro de esa pregunta.



1 **¿Crees que comer frutas y vegetales te ayuda a tener huesos y dientes más fuertes?**	2 **¿Haces regularmente alguna actividad física cuando sales de la escuela?**	3 **¿Crees que las frutas y vegetales te ayudan a ser más fuerte?**
4 **¿Comiste frutas y vegetales en tus bocadillos?**	5 **¿Crees que es fácil comer de 3 a 5 tazas de frutas y vegetales al día?**	6 **¿Te gusta el sabor de muchas frutas y vegetales diferentes?**
7 **¿Crees que el ser físicamente activo te puede ayudar a estar más atento en la escuela?**	8 **¿Crees que es fácil hacer 60 minutos diarios de actividad física?**	9 **¿Crees que la actividad física te ayuda a sentirte con más energía?**