Trunk Extensor Strength and Flexibility
This is an important aspect of fitness because it predicts first time and recurrent lower back pain, a major source of disability and discomfort. Awareness and attention to trunk strength and flexibility may reduce the risk for future back problems. There is only one option for this fitness area.

Trunk Lift. The goal of this test is to lift the upper body a maximum of 12 inches off the floor using the muscles of the back. Students hold this position long enough to allow for the measurement of the lift distance.

Upper Body Strength and Endurance
Upper body strength and endurance is an important fitness area because of reported benefits in maintaining functional health and good posture. There are three options available to assess this fitness area.

Push-Up. Students are asked to complete as many push-ups as possible and at a specified pace.

Modified Pull-Up. Students are instructed to complete as many modified pull-ups as possible. The student performs the test by lying on his or her back directly under a bar, and grasping the bar to pull up until the chin reaches a specified level. (The modified pull-up is shown in the upper left photo on the cover.)

Flexed-Arm Hang. To complete this test, students hang by the arms with the chin above a bar for as long as possible.

Flexibility
Flexibility of the joints is an important component of fitness that contributes to functional health. There are two options for this fitness area.

Back-Saver Sit and Reach. The goal of this test is to assess the flexibility of the lower back and posterior thigh. Using a special box designed for this test, students are asked to reach forward as far as possible and to a maximum distance of 12 inches. The actual reach distance is measured for both the right and left sides of the body. (The back-saver sit and reach is shown in the upper right photo on the cover.)

Shoulder Stretch. This simple test of upper body flexibility involves asking students to touch their fingertips behind the back by reaching over both the right and left shoulders and under the elbow.

For additional information regarding the California PFT go to http://www.cde.ca.gov/ta/tg/pft/ or about the FITNESSGRAM® go to http://www.fitnessgram.net (Outside Source).

Cover photos reprinted, by permission, from Human Kinetics, FITNESSGRAM/ACTIVITYGRAM® Test Administration Manual, 3rd ed. (Champaign, IL: Human Kinetics). This manual includes a DVD with all test protocols.
Background

California Education Code Section 60800 requires each school district to administer a physical fitness test annually to all students in grades five, seven, and nine. The State Board of Education designated the FITNESSGRAM® as the required Physical Fitness Test (PFT) for California public schools. The FITNESSGRAM® is a comprehensive health-related fitness test developed by The Cooper Institute. The primary goal of the FITNESSGRAM® is to assist students in establishing lifelong habits of regular physical activity.

The PFT is administered between February 1 and May 31. Students are required to be provided with their individual results upon completing the test. Some school districts may require that each student’s PFT results be sent to parents and guardians.

There are several ways to use the PFT results. Schools can use the results to determine the fitness levels of their students and provide direction for physical education programs. Students can use the results to assess their individual levels of fitness and develop personal fitness programs of maintenance or improvement. Parents and guardians can use the results to help their children plan fitness activities to meet their individual needs. School districts and schools also can use the PFT results to monitor the fitness status of their students in grades five, seven, and nine.

FITNESSGRAM®

The FITNESSGRAM® is designed to test six key fitness areas that represent three broad components of fitness: (1) aerobic capacity, (2) body composition, and (3) muscle strength, endurance and flexibility. This third component is further divided into four areas: abdominal strength and endurance, trunk extensor strength and flexibility, upper body strength and endurance, and flexibility.

Healthy Fitness Zones

The FITNESSGRAM® uses objective criteria to evaluate fitness performance. Two levels of performance have been established for each test option: (1) in the Healthy Fitness Zone and (2) needs improvement (i.e., not in the Healthy Fitness Zone). The desired performance goal for each test option is the Healthy Fitness Zone. This zone represents a level of fitness that offers some protection against the diseases resulting from physical inactivity. The FITNESSGRAM® Healthy Fitness Zones, which have been established according to gender and age, can be found on the California Department of Education (CDE) Physical Fitness Testing Web page at http://www.cde.ca.gov/ta/tg/pf/. Students with scores exceeding the HFZ are considered as being in the HFZ.

Test Areas

The FITNESSGRAM® provides a number of options for most of the fitness areas so that all students, including those with special needs, have the maximum opportunity to participate in the tests. For those fitness areas that have options, only one option is reported for each student.

Aerobic Capacity

Aerobic capacity refers to the maximum rate that oxygen is taken in and used by the body during exercise. Good aerobic capacity has been associated with a reduction in health problems. The three performance task options for aerobic capacity assess the capacity of the cardiorespiratory system by measuring endurance.

- **PACER (Progressive Aerobic Cardiovascular Endurance Run)**. This test is an alternative to the distance run. The objective is to run as long as possible, going back and forth across a 15-meter or 20-meter distance, and at a specified pace that is set to music and gets faster each minute.
- **One-Mile Run**. The goal of this test is to walk and/or run a distance of one mile at the fastest pace possible.
- **Walk Test**. This test is only for students who are 13 years or older. The objective of this task is to walk a distance of one mile as quickly as possible while maintaining a constant walking pace for the entire distance.

Body Composition

The three body composition options estimate the level of fat in the body. This is a key component of fitness because excessive fat content has been associated with health problems, such as coronary heart disease, stroke, and diabetes.

- **Skinfold Measurements**. This test involves taking measurements of the thickness of the skinfolds on the triceps and calf with a device called a skinfold caliper. These measurements are put into a formula to calculate the percentage of body fat.
- **Bioelectric Impedance Analyzer (BIA)**. The BIA is a device that measures body fat by sending a safe, low energy electrical signal through the body and generating an index of resistance. The resistance value (along with other values such as height, weight, age, and gender) is used to estimate the percentage of body fat.
- **Body Mass Index (BMI)**. To calculate the BMI, a student’s weight and height measurements are inserted into a formula to produce an index of the relationship between weight and height. Although not as accurate an indicator of body composition as skinfold measurements, particularly for students with high muscle mass, it is an acceptable option in school districts where policies limit the use of skinfold measurements.

Abdominal Strength and Endurance

Abdominal strength and endurance are important in promoting good posture, correct pelvic alignment, and lower back health.

- **Curl-Up**. This is the only test option for abdominal strength and endurance. The objective of the curl-up is to complete as many curl-ups as possible at a specified pace, up to a maximum of 75. (The curl-up is shown in the photo on the lower section of the cover.)