## Physical Education

## Overview



Elementary physical education programs emphasize the importance of physical activity and personal fitness. Fitness is developed through the activities in the daily lessons, which emphasize physical activity, continuous movement, and challenges that involve overloading the major muscle groups. Students have opportunities to understand the fitness components, fitness assessment, and the need for a lifetime of physical activity. Participation in physical activity also can be an important venue for the social, psychological, and emotional development of children.

The elementary school physical education program emphasizes the development of fundamental locomotor, nonlocomotor, and manipulative skills. The movement framework, basic biomechanical and motor learning principles (see Appendixes C, D, and E in the Physical Education Framework for California Public Schools [California Department of Education 2009]), and fundamental game tactics are also part of the content for elementary school students.

State law requires that schools provide students in grade four with at least 200 minutes of physical education each 10 school days. Recess and lunch time do not count toward the required instructional minutes.

The grade-four physical education model content standards are organized by five overarching content standards. Under each of the overarching standards are grade-level standards that provide a vision of what students in grade four should know and be able to do. Together, the content standards represent the essential skills and knowledge that all students need to be physically active and enjoy a healthy lifestyle.

Grade-four students are at a transitional stage between childhood and youth. Eye-hand coordination is improving, fine motor activities are performed with more skill, and the greatest gain in strength begins at this stage. Students are also experiencing improvements in reaction time and balance. Although the center of gravity is still located in the midsection of the body, the ability to balance remains a challenge.

## What Fourth-Grade Students Should Know

Students master the proper form for locomotor and nonlocomotor skills and learn to manipulate objects in a variety of ways in kindergarten through grade three. In grade three, students began to focus on combining locomotor and nonlocomotor skills into new movement sequences. Students experimented with and explored alternative movements, such as tumbling, creative dance, and formal dance. They learned the beginning steps of line, circle, and folk dances and performed dances with a partner. Grade-three students learned the correct technique for manipulative skills and how to describe the correct technique for manipulative skills in detail (e.g., throwing a ball to a moving partner, dribbling while moving forward). They honed their throwing, catching, kicking, and striking skills.

Students practiced basic stretches, demonstrated correct technique for warm-up and cool-down exercises, and increased the number of endurance exercises they can do. They monitored their improvement in individual fitness activities and toward personal goals for improving motor skills. They learned about their body's reaction to physical activity and the way the heart, lungs, and muscles interact. Students learned about the benefits of safety procedures and rules, along with the consequences of not following them. They also learned how to coach other students by using movement cues and words of encouragement.

## What Students Learn in Fourth Grade

In grade four, students focus on learning and practicing manipulation skills (e.g., kicking, throwing, striking), in particular using rackets and paddles to strike objects. They also learn about the correct technique for manipulative skills, such as body orientation when serving a ball, and to distinguish between similar skills (e.g., kicking and punting). They begin to learn individual defensive and offensive moves. Students increase the level and frequency of their physical activity, set goals for health-related physical fitness, and monitor their improving skills and fitness. They are introduced to the concept of perceived exertion. They learn about the value of muscular endurance/strength, aerobic and flexibility exercises, and the importance of water and healthy foods to improve physical performance. Students learn to include others in physical activity and to respect differences in skill levels. They also learn to accept responsibility for their own performance of physical activities and to both win and lose with dignity and respect.

## Overarching Standard 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.

Manipulative skill practice takes on a much greater role in grade-four physical education. Students learn and practice techniques for throwing, catching, kicking, punting, striking with a racket or paddle, serving, handdribbling, foot-dribbling, trapping, and volleying using a forearm pass in a variety of situations. For example, they learn to throw overhand using proper follow-through and to kick a ball using the inside of their foot. With multiple opportunities to practice manipulative skills, students master the correct technique and body positions for these foundational skills. They learn and practice defensive moves, such as keeping a dribbled ball away from an opponent. In grade four, students learn and apply body management skills to change direction quickly to maintain or increase spacing between two players. They also use body management, nonlocomotor skills to perform simple balance stunts with a partner. They learn basic square-dance steps, perform rhythmic routines that include both even- and uneven-beat locomotor patterns, and repeatedly jump a self-turned rope.

## Overarching Standard 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities.

Standard 2 represents the cognitive knowledge that supports the locomotor, nonlocomotor, and manipulative skills learned in grade four described in Standard 1. As grade-four students learn and practice manipulative skills, they also learn the concepts and principles that apply to those skills. They learn about and can describe the similarities and differences between similar skills (e.g., underhand throw and underhand serve, punting and kicking, striking with a long-handled implement and striking with a short-handled implement). They also compare and contrast manipulative techniques and learn which one would be best to use in a given situation (e.g., when dribbling a ball without a defender, when dribbling a ball with a defender). Students learn about movement strategies, such as ways to create space between offensive and defensive players. Students learn concepts related to rhythmic skills and locomotor patterns and then design routines set to music that include both even and uneven beat movements.

## Overarching Standard 3: Students assess and maintain a level of physical fitness to improve health and performance.

In grade four, students take on more responsibility for measuring their health-related fitness. One goal of physical education instruction in grade four is that students meet minimum criteria for health-related physical fitness on a scientifically based assessment. To work toward that goal, students perform moderate to vigorous physical activities three to four days each week for increasing periods of time. They also sustain continuous movement for increasing periods of time when engaged in moderate to vigorous physical activities. To further develop their muscular strength and endurance, students perform an increasing number of abdominal curl-ups, oblique curl-ups on each side of the body, modified or traditional push-ups, and triceps push-ups. Students practice proper body alignment when doing basic stretches for the hamstrings, quadriceps, hip flexors, triceps, back, shoulders, hip adductors, hip abductors, and calves. As students strive to improve their health-related fitness by increasing the number of exercises they perform and the amount of time they are physically active, they also measure and record their progress. They use scientifically based health-related physical fitness tests to measure changes in their aerobic capacity and muscular strength.

## Overarching Standard 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.



Similar to the relationship between Standards 1 and 2, Standard 4 provides the cognitive information to support the fitness activities described in Standard 3. For example, under Standard 4.1 students learn about the correct body alignment for performing lower-body stretches to prevent injuries and under Standard 3.6 they demonstrate stretches using correct body alignment.

In grade four, students learn about the principles of physical fitness, which are often referred to as FITT: frequency, intensity, time, and type. (For additional information, see Table 2.1, Protocols for the Principles of Fitness, in the Physical Education Framework for California Public Schools.) They also learn about the purpose of warm-up and cool-down periods; how to calculate heart rate; the value of muscular endurance/strength; and the importance of aerobic and flexibility exercises in physical activity and for their health. To help them determine the intensity of their physical activity, students learn about perceived exertion, which is based on the physical sensations experienced during physical activity (e.g., increased heart rate, increased respiration, fatigue). Students learn about the characteristics of physical activities that build aerobic capacity and why muscular endurance/strength activities do not increase muscle mass in children their age. They learn about the role that healthful food plays in helping to improve physical performance and why their bodies need water before, during, and after physical activity. Students set short-term goals on the basis of their knowledge of physical fitness concepts, principles, and strategies in order to improve their aerobic endurance, muscular strength/endurance, and flexibility.

## Overarching Standard 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, principles, and strategies that apply to the learning and performance of physical activity.

In grade four, students assume responsibility for setting a health-related physical fitness goal that can be attained during nonschool time, then work toward their goal and monitor their progress on their own time. They
learn to accept responsibility, without blaming others, for their performance during physical activities and on fitness tests. They learn to respond to winning or losing with dignity and respect. With their teacher's guidance, students also learn how to include others in physical activities and show respect for individual differences in skill levels and motivation.

## Support for English Learners

The goal of physical education programs in California is to ensure universal access to high-quality curriculum and instruction so that every student can meet or exceed the state's physical education model content standards. To reach that goal, teachers design instruction to meet the instructional needs of each student. Different instructional approaches may be needed for English learners to gain access to physical education content. Specially designed academic instruction in English (SDAIE), also known as sheltered instruction, provides students with a variety of interactive and multimodal means to obtain information. With sheltered instruction techniques, teachers modify the language demands of the lesson. Cooperative learning with high levels of interaction may also be an effective strategy. (See the Physical Education

Physical education instruction provides opportunities for students to develop their Englishlanguage skills.

Framework for California Public Schools [California Department of Education 2009], Chapter 7, "Universal Access," for more information.)

Physical education instruction provides opportunities for students to develop their English-language skills. Students learn new vocabulary through physical activity instruction that is modeled by other students (e.g., "Step forward on the nonkicking foot") and demonstrations of manipulative skills that include labeling the steps of the skill (e.g., "Use a handshake grip"; "Swing the racket forward"). As students learn the Latin-based, scientific names for muscles, English learners whose first language is Spanish may recognize the similarities between some English and Spanish words. For example, muscle/muscolo and ligament/ligmento are cognates, words that are related to words in another language or that share an ancestral root with another word. Instruction that draws attention to cognates can help students understand domainspecific and academic vocabulary. Participating in small-group activities and modified team games, coaching other students, discussing rules, and speaking and hearing about physical education concepts and principles also provide opportunities for English learners to acquire academic vocabulary and practice both informal and formal English.

## Support for Students with Special Needs

Successful participation in physical activities by students with special needs depends on the teacher's skill and training in providing instruction and support to all students. When systematically planned differentiation strategies are used, students with special needs can benefit from appropriately challenging curriculum and instruction. The strategies for differentiating instruction include pacing, complexity, depth, and novelty. Despite the modifications made, however, the focus is to always help students meet the physical education model content standards to the best of their ability.

In helping students achieve at their grade level, teachers use instructional resources aligned with the standards and provide additional learning and practice opportunities. Some students with 504 Plans or individualized education programs (IEPs) are eligible for special education services in physical education. A student's 504 Plan or IEP often includes suggestions for techniques to ensure that the student has full access to a program designed to provide him or her with appropriate learning opportunities and that uses instructional materials and strategies to best meet his or her needs. The 504 Plan or IEP also determines which services or combination of services best met the student's need. See the Physical Education Framework for California

Public Schools [California Department of Education 2009], Chapter 7, "Universal Access," for more information. The framework is posted at http://www.cde.ca.gov/ci/pe/cf/index.asp.

## The Standards

The following grade-four physical education model content standards were adopted by the California State Board of Education on January 12, 2005.

| Physical Education Model Content Standards <br> Grade Four |  |
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| STANDARD 1: Students demonstrate the motor skills and movement patterns needed to perform a <br> variety of physical activities. |  |
| Body Management |  |
| 1.1 | Perform simple balance stunts with a partner while sharing a common base of support. |
| 1.2 | Change direction quickly to maintain the spacing between two players. |
| 1.3 | Change direction quickly to increase the spacing between two players. |
| 1.4 | Determine the spacing between offensive and defensive players based on the speed of the players. |
| Locomotor Movement |  |
| 1.5 | Jump a self-turned rope. |
| Manipulative Skills | Throw and catch an object with a partner while both partners are moving. |
| 1.6 | Throw overhand at increasingly smaller targets, using proper follow-through. |
| 1.7 | Throw a flying disc for distance, using the backhand movement pattern. |
| 1.8 | Catch a fly ball above the head, below the waist, and away from the body. |
| 1.9 | Kick a ball to a moving partner, using the inside of the foot. |
| 1.10 | Kick a stationary ball from the ground into the air. |
| 1.11 | Sunt a ball dropped from the hands. |
| 1.12 | Strike, with a paddle or racket, a lightweight object that has been tossed by a partner. |
| 1.13 | Serve a lightweight ball to a partner, using the underhand movement pattern. |
| 1.15 | Strike a gently tossed ball with a bat, using a side orientation. |
| 1.16 | Keot-dribbled ball away from a defensive partner. |


| 1.17 | Keep a hand-dribbled ball away from a defensive partner. |
| :---: | :---: |
| 1.18 | Manipulate an object by using a long-handled implement. |
| 1.19 | Stop a kicked ball by trapping it with the foot while standing still. |
| 1.20 | Volley a tossed lightweight ball, using the forearm pass. |
| Rhythmic Skills |  |
| 1.21 | Perform a series of basic square-dance steps. |
| 1.22 | Perform a routine to music that includes even and uneven locomotor patterns. |
| STANDARD 2: Students demonstrate knowledge of movement concepts, principles, and strategies that apply to the learning and performance of physical activities. |  |
| Movement Concepts |  |
| 2.1 | Explain the difference between offense and defense. |
| 2.2 | Describe ways to create more space between an offensive player and a defensive player. |
| Body Management |  |
| 2.3 | Describe the appropriate body orientation to serve a ball, using the underhand movement pattern. |
| 2.4 | Describe the appropriate body orientation to strike a ball, using the forehand movement pattern. |
| Manipulative Skills |  |
| 2.5 | Explain the similar movement elements of the underhand throw and the underhand volleyball serve. |
| 2.6 | Distinguish between punting and kicking and describe the similarities and differences. |
| 2.7 | Compare and contrast dribbling a ball without a defender and with a defender. |
| 2.8 | Explain the differences in manipulating an object when using a long-handled implement and when using a short-handled implement. |
| 2.9 | Identify key body positions used for volleying a ball. |
| Rhythmic Skills |  |
| 2.10 | Design a routine to music that includes even and uneven locomotor patterns. |
| STANDARD 3: Students assess and maintain a level of physical fitness to improve health and performance. |  |
| Fitness Concepts |  |
| 3.1 | Participate in appropriate warm-up and cool-down exercises for particular physical activities. |
| 3.2 | Demonstrate the correct body position for pushing and pulling large objects. |


| Aerobic Capacity |  |
| :---: | :---: |
| 3.3 | Participate three to four days each week, for increasing periods of time, in continuous moderate to vigorous physical activities at the appropriate intensity to increase aerobic capacity. |
| Muscular Strength/Endurance |  |
| 3.4 | Perform increasing numbers of each: abdominal curl-ups, oblique curl-ups on each side, modified push-ups or traditional push-ups, and triceps push-ups. |
| 3.5 | Hang by the hands from an overhead bar with the hips and knees each at a 90-degree angle. |
| Flexibility |  |
| 3.6 | Demonstrate basic stretches using proper alignment for hamstrings, quadriceps, hip flexors, triceps, back, shoulders, hip abductors, and calves. |
| Body Composition |  |
| 3.7 | Sustain continuous movement for increasing periods of time while participating in moderate to vigorous physical activity. |
| Assessment |  |
| 3.8 | Measure and record changes in aerobic capacity and muscular strength, using scientifically based health-related physical fitness assessments. |
| 3.9 | Meet minimum requirements for health-related physical fitness, using scientifically based health related physical fitness assessments. |
| STANDARD 4: Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance. |  |
| Fitness Concepts |  |
| 4.1 | Identify the correct body alignment for performing lower-body stretches. |
| 4.2 | Explain the principles of physical fitness: frequency, intensity, time, and type. |
| 4.3 | Set personal short-term goals for aerobic endurance, muscular strength and endurance, and flexibility and monitor progress by measuring and recording personal fitness scores. |
| 4.4 | Identify healthful choices for meals and snacks that help improve physical performance. |
| 4.5 | Explain why the body needs water before, during, and after physical activity. |
| 4.6 | Explain why the body uses a higher percentage of carbohydrates for fuel during high intensity physical activity and a higher percentage of fat for fuel during low-intensity physical activity. |
| 4.7 | Explain the purpose of warm-up and cool-down period. |
| Aerobic Capacity |  |


| 4.8 | Calculate personal heart rate per minute by recording heartbeats for ten-second intervals and 15 <br> second intervals. |
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| 4.9 | Explain why a strong heart is able to return quickly to its resting rate after exertion. |
| 4.10 | Identify two characteristics of physical activity that build aerobic capacity. |
| 4.11 | Determine the intensity of personal physical activity by using the concept of perceived exertion. |
| Muscular Strength/Endurance |  |
| 4.12 | Describe the difference between muscular strength and muscular endurance. |
| 4.13 | Explain why muscular endurance or muscular strength activities do not increase muscle mass in <br> preadolescent children. |
| 4.14 | Recognize how strengthening major muscles can improve performance at work and play. |
| 4.15 | Describe the correct form to push and pull heavy objects. |
| Flexibility |  |
| 4.16 | Explain the value of increased flexibility when participating in physical activity. |
| Body Composition |  |
| 4.17 | Explain the effect of regular, sustained physical activity on the body's ability to consume calories and <br> burn fat for energy. |
| 5.6 | Accept an opponent's outstanding skill, use of strategies, or ability to work effectively with <br> teammates as a challenge in physical fitness. |
| GTANDARD 5: Students demonstrate and utilize knowledge of psychological and sociological concepts, |  |
| principles, and strategies that apply to the learning and performance of physical activity. |  |
| 5.2 | Include others in physical activities and respect individual differences in skill and motivation. |
| Self-Responsibility |  |
| 5.1 | Set a personal goal to improve an area of health-related physical fitness and work toward that goal in <br> nonschool time. |
| 5.3 | Accept responsibility for one's own performance without blaming others. |
| 5.4 | Respond to winning and losing with dignity and respect. |
| Social Interaction |  |
| 5 |  |

