



## National Association for Sport and Physical Education

*an association of the American Alliance for Health,  
Physical Education, Recreation and Dance*

*NASPE Sets the Standard*

### **The Scope & Sequence of Fitness Education for PreK–16 Programs NASPE Fitness Education Project**

#### **Introduction**

In May 2006, the National Association for Sport and Physical Education (NASPE) received funding from the Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health to improve the quality and quantity of physical education and physical activity programs across the United States. The cooperative agreement project provides professional development, technical assistance and resources to state and local education organizations to assist them in improving their physical education and physical activity programs.

Fitness education is a critical component of a quality physical education program, based on the National Standards for Physical Education (NASPE, 2004). Although many excellent fitness education resources exist, professionals in the field have expressed the need for a resource that defines the instructional scope and sequence of fitness education concepts and behavioral skills from elementary school through college — in physical education and health courses — to ensure appropriate instructional practices at all developmental levels. Through its cooperative agreement project, NASPE addressed the need to develop the guidance necessary for physical educators to provide the most developmentally appropriate fitness information across the education continuum.

In 2009, after a competitive process, NASPE awarded funding to a team of content experts to develop a scope and sequence publication delineating what should be taught in fitness education to students in grades K-16. After an exhaustive analysis of existing resources and standards, the research team has completed this scope and sequence document.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Chapter 1. Overview/Introduction

NASPE's Fitness Education Project team gathered insights from professionals across the country who have worked on national and state physical education standards and district curriculum materials; from content and pedagogy specialists; and from current literature to provide one comprehensive Scope & Sequence for Fitness Education (S&SFE) for the nation.

Although the term “fitness” is used in many ways, this project defines fitness education as health-related fitness (HRF) education. *(See p. 4 for the definition used for this project.)* Overall, fitness education should incorporate an updated, coherent and professionally defensible scope and sequence of how fitness content should be organized for purposes of instruction and learning.

This S&SFE for PreK-16 programs provides guidance for physical education teachers and other professionals who make education-related judgments about the quality of fitness programming. The contribution of this project is substantial, because, in addition to creating a much-needed K-12 S&SFE, it adds PreK and college benchmarks to the curriculum framework. This addition will further refine the appropriate content at each level of education. Members of the project team hope that this broader vision that starts earlier and continues through postsecondary education will help to foster physically active and fit citizens for our society.

#### **Why is a clearly defined scope and sequence needed?**

As is widely known, national physical education standards (NASPE, 2004) and health education standards (NHES, 2007) have been created and adopted. Many states have used these national standards to develop their own standards. Why, then, are additional guidelines concerning fitness education still needed? What is the relationship among physical education, health education and fitness education? These questions need to be answered to better understand the desired S&SFE.

Fitness education content is found separately in both health and physical education standards and curricula. Fitness education is an important subset within health and physical education standards. Although similarities exist in some cases, states have focused on different content in their respective standards.

NASPE has published national physical education curriculum standards, with suggested sample outcomes at grades 2, 5, 8 and 12. To date, however, no comprehensive national guideline exists for the fitness education. Teachers attempting to use current materials often feel that some content is not addressed and, in some cases, redundancies occur across grade levels. Most important, students continue to graduate from high school without understanding the FITT

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Principle, valuing fitness or being able to plan an appropriate fitness program for themselves. In addition the obesity rates in the country continue to rise, indicating the need for greater attention on this aspect of the curriculum.

Accordingly, there is a clear need for an S&SFE to provide core guidance for PreK-16 programs to promote excellence and equity of fitness education for all students. Members of the project team believe that efforts to generate a national S&SFE are worthwhile because it will guide improved curriculum development, instruction, assessment and program evaluation. It also invites further reflection and research about the fundamental issues related to fitness education.

### **How should the S&SFE be used?**

The purpose of the S&SFE is to suggest what students should understand and be able to do at certain grade levels, focusing on helping students adopt a healthy lifestyle through Preschool to the 16<sup>th</sup> year of education. The development of the S&SFE is grounded in the assumption that a health-enhancing level of physical fitness is attainable for all students through regular engagement in moderate to vigorous physical activity, regardless of gender, age, ethnicity and cultural background. As a result, the S&SFE is designed for all students.

The content included in the S&SFE was developed holistically, and all areas are important and should be included.

It's important to note from the outset that the S&SFE is geared toward providing ample room for teaching innovation and creativity, which are essential to fitness education. Physical education teachers, curriculum coordinators, fitness leaders and administrators should use these materials as a framework that outlines the desired outcomes of fitness education learning experiences. They are intended to be used as a framework for customizing content to meet the needs of students from a state, local or programmatic level.

It would be inaccurate to interpret these materials as a rigid, standardized delivery of fitness education, because context, region, resources, facilities and student expectations differ.

Overall, the proposed S&SFE should be integrated into an existing physical education curriculum by offering full or partial lessons that address this fitness content. For example, an entire lesson could be dedicated to the concept of energy balance. Fitness education also can be integrated into sport-oriented lessons, in which the focus is volleyball, but the students are learning simultaneously how to improve muscle endurance by performing specific upper- and lower-body movements repeatedly. Measureable benchmarks represent the skills, knowledge and values reflective of competence at a given point of time and can be used to develop curriculum or fitness-specific courses.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### The proposed organization of S&SFE

To date, the scope was determined by using descriptors and benchmarks taken in large part from an analysis of state standards, with input from the project team. The sequence of fitness education, on the other hand, was organized by PreK-K, grades 1 through 2 and grades 3 through 5 (i.e., elementary school); grades 6 through 8 (i.e., middle school); grades 9 through 12 (i.e., high school); and grades 13 through 16 (i.e., higher education).

PreK is included because of the newly released education policy regarding PreK instruction (President's Early Learning Council, 2010), which indicates that formal education begins at PreK. PreK and K are grouped together is because of the unique learning characteristics and needs of this age level. Most teachers will agree that teaching kindergarteners is significantly different from teaching 1<sup>st</sup>-graders.

By the same token, a benchmark for higher education is included because of the widely accepted belief that it is the end of schooling and also should be used to help combat obesity in the general population.

The grade-grouping format was determined by three factors:

1. **Flexibility.** Grouping two or three grades together gives states and teachers a certain level of flexibility, based on their resources, in deciding how to teach fitness.
2. **Accountability.** Having periodic benchmarks identified leads to accountability.
3. **Curriculum alignment.** Using the grouped grade levels mimics the NASPE curriculum standards document (NASPE, 2004).

In addition to the descriptors and benchmarks, the project team would like to develop learning projects that will provide integrated activities to help reach and assess specific combinations of benchmarks. This project-based approach will encourage instructors to teach fitness using a holistic way that actively involves students in the education process.

In summary, the creation of the S&SFE means a beginning of defining how fitness education should be framed. The discussion about the S&SFE must and will continue.

While members of the project team believe that all the included topics and benchmarks are important to students, priority indices were developed to indicate the relative importance of topics identified in the analysis of state standards. This was done by considering the number of statements made about the topic, the number of states that had included that topic and percentage of the states that had standards at that grade level including that topic.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Chapter 2. Factors Determining the Development of the Scope & Sequence

Many factors have been taken into consideration in order to ensure the comprehensiveness of proposed S&SFE. We have sought to reflect the different interests and focuses of current fitness education. The development of the S&SFE is influenced by the following factors.

- ***The definition of fitness education***

The definition used in the project sets the foundation for the development of the S&SFE. Given that the literature did not contain a widely accepted definition of fitness education, the project team defined fitness education as follows:

Fitness education is the instructional and learning process of acquiring values, knowledge and skills; experiencing regular participation in physical activity; and promoting healthy nutrition choices to achieve life-enhancing health-related fitness.

Based on the definition, the S&SFE has the following features:

- a. The S&SFE includes value, knowledge, skills, experience in physical activity participation and choosing a healthy diet.
- b. The overarching goal of fitness education is to achieve life-enhancing health-related fitness, which is different from just participating in health-related fitness activities or achieving a high level of athletic skill.

Although it is widely understood that someone's health-related fitness is determined by various factors, including genetic, environmental and social factors, it is the philosophy of the project team that both "the process" of fitness education (i.e., physical activity participation) and "the product" of fitness education (i.e., fitness level) should be taken into consideration. That is why both physical activity and fitness are included in the S&SFE. Overall, the S&SFE in PreK – 16 were developed based on the aforementioned definition of fitness education.

- ***Current education reform***

Education in general has undergone significant reform in the effort to meet new challenges encountered in modern society. Overall, the following two salient changes are noteworthy:

1. New methods of teaching and learning.
2. Increased accountability.

Specifically, in terms of new methods of teaching and learning, an evolution in the prevailing notions concerning how to teach health-related fitness (HRF) has caused a shift from programs designed merely to instill knowledge of HRF or produce fitness results without understanding why they are important, to programs developed to teach the various skills necessary for translating HRF knowledge into action. Self-management has become an important element of HRF education. In addition, there has been a growing recognition that fitness education is more effective when the home and other environmental settings also are addressed. As a result, the

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

proposed S&SFE focuses on fitness-enhancing behavior changes that take family and environment into consideration.

Furthermore, in terms of increased accountability, in response to more than 30 years of concern about student achievement on both national and international assessments, the No Child Left Behind Act (NCLB, 2002) has led to an increased focus on establishing challenging standards, measuring student learning against those standards and holding schools and local education agencies accountable for student achievement (Tavakolian & Howell, 2012). Thus, the S&SFE has a built-in mechanism to begin holding teachers and students accountable by providing benchmarks for grade levels PreK-K, 1-2, 3-5, 6-8, 9-12 and higher education.

- ***Current fitness education realities across the nation***

While members of the project team believe that the S&SFE should consider what will be needed in the future and what will guide the advancement of fitness education, it is equally important to consider current education practice in general, and fitness education in particular, because it must be useful to physical education professionals. Therefore, the S&SFE needs to be created at a realistic level.

In the course of developing the S&SFE, the project team invited input at two national conferences (AAHPERD National Convention & Exposition, 2009 & 2010), one state conference (Texas AHPERD, 2009), and two Texas meetings of district physical education coordinators (SEA conference 2009 & 2010). State standards were analyzed to identify relevant content and to inform the placement of benchmarks at particular grade levels. Members of the project team had extensive teaching experience at each of the different grade levels and so provided judgments in the case of no clear agreement on benchmark placement. Feedback from targeted reviewers — with expertise in exercise physiology and pedagogy from different states, with expertise at the different ages — will be solicited during the NASPE review process and adjustments made where appropriate.

- ***Consistency with CDC's physical activity recommendation, NASPE's endorsement of FitnessGram<sup>®</sup> and national standards developed in other subject matters***

To be consistent with current physical activity promotion efforts and NASPE's positions, the S&SFE incorporated the CDC's physical activity recommendations and FitnessGram<sup>®</sup> — endorsed by NASPE — in the physical activity and fitness planning, participation and assessment benchmarks. In addition, project-based instruction has presented a format for integrating subject matter across the curriculum into authentic learning projects.

Also, although each subject has its own designated content, all subject areas are connected in certain ways. For example, students need to have computer skills before they can use computers to search for fitness information, services and products. The learning project

## **Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)***

proposed earlier will offer a more holistic vision for the future, complementing other current efforts to promote health and fitness, not only in fitness education but in other school subject areas, as well. The learning projects to be developed will provide excellent opportunities for integration with math, language arts, social studies and science curricula.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Chapter 3. Methods Used to Develop the S&SFE

Generating the S&SFE has gone through several stages. Different methods were employed based on the purpose of each stage. Below is the detailed information about each stage of development.

Stage 1 was geared toward determining the definition of fitness education, because that provided a focus and delimitation of the project. Based on an extensive literature review and thorough discussion among the project team members, the aforementioned working definition of fitness education was developed.

Stage 2 focused on examining existing published materials, including fitness textbooks, and research on well-known fitness related programs, such as Sports Play Active Recreation for Kids (SPARK™) and Coordinated Approach to Child Health (CATCH®). Given that no comprehensive consensus document exists on what fitness content should be taught in each grade, a critical task for the project team has been to develop a list of content domains and sub-domains that have been included in fitness-related texts and state physical education and health education standards.

The project team was divided in four groups (Elementary, Middle School, High School and Higher Education) to accomplish the above tasks. The resources examined were recently published fitness books from 2000 to the present. In addition, well-known existing fitness education program materials were reviewed.

Stage 3 had two tasks:

1. Investigate individual state health and physical education standards and generation of the S&SFE for PreK-12.
2. Examine online university fitness/wellness course syllabi and development of the S&SFE for higher education.

Because, in general, the state physical and health education standards are complex, the entire project team focused first on analyzing state standards.

#### ***State physical education and health education standard examination and development of the S&SFE for PreK-12***

Teams of professionals in each state have developed state standards, so reviewing their work and gathering input from all the state documents was considered essential. Thus, a tremendous amount of effort has been devoted to examining state physical and health education standards. In total, 48 states have K-12 physical education standards that were accessible online. Using the aforementioned list of content domains, the project team worked to

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

summarize the relevant content for each grade (e.g., K-12) included in state physical education standards and health education standards.

Because 48 states have physical education and/or health education standards and 11 team members coded the standards, team members coded an average of five to six states. The reliability of the data collection was tested three times: at the beginning, middle and end of the data collection. All inter-coder values were greater than 0.8, indicating acceptable reliability.

Once the available state standards were coded into the domains, the project team used the constant content comparison method to create themes (titled “sub-domains”) of fitness content for each grade. Numerous discussions were held to reach a consensus on the sub-domains. Then, the project team calculated the number of statements, number of states and percent of states including content in each domain and sub-domain. Based on the results of examining state standards, current education trends mentioned above and the project team’s understanding of fitness education, the team developed a draft S&SFE. This S&SFE will be compared and aligned with NASPE documents (e.g., *Moving Into the Future: National Standards for Physical Education* and *PE Metrics™* sample performance outcomes).

### ***Higher education fitness education and the development of the S&SFE in Higher Education Benchmark***

The Fitness Education in Higher Education Benchmark is determined by each individual university rather than by state education agencies or standards. In contrast to the strategies used for analyzing K-12 programs, the project team employed two different approaches to investigate the fitness education content in the Higher Education Benchmark:

1. The higher education group examined content of published fitness/wellness textbooks for university students. The textbooks were selected by searching the Web sites of higher education benchmark and physical education publishers (e.g., Pearson Education, Prentice Hall, McGraw-Hill, Sage, Human Kinetics), and the University of Texas at Austin’s library book catalog. The group set the timeframe for the published textbooks to within the past 10 years to ensure the inclusion of only the most up-to-date knowledge. In total, 24 textbooks were examined, and the frequencies of inclusion of content were computed, beginning with the most detailed tables of contents.
2. The higher education group explored fitness/wellness class syllabi and fitness/physical activity requirements for undergraduate general education online. In terms of sampling, only state public universities were included. Course syllabi were obtained online or requested from 100 state public universities (two per state). The team was successful in obtaining 60 usable documents, so, in total, 60 online fitness and/or wellness class syllabi with a list of content topics were examined. Then, the frequencies of content covered in those syllabi were tallied. The team developed the S&SFE Higher Education

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Benchmark based on the results of examining the syllabi and the content included in the S&SFE for PreK-12.

### ***Debriefing & Input***

In qualitative research, the term “peer debriefing” is used to ensure that credibility by the researcher exposing his/her thoughts about the data to searching questions by others (Lincoln & Guba, 1985). Hypotheses are questioned, alternate interpretations are posed and next steps are questioned or suggested. The project team attempted to employ those techniques in its weekly meetings.

In addition, the team would like to invite other professionals to serve in this role during the NASPE open-review period.

Thus, in addition to the open request for feedback during the general NASPE review period, requests with specified focus questions will be sent to a targeted panel of experts to solicit input for this proposed S&SFE. The final version of the S&SFE presented to the NASPE Delegate Assembly will incorporate information from the examination of texts and programs, examination of state standards and expert review, with final decisions being made by the project team.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Chapter 4. Specific Standards

The project team constructed the S&SFE primarily from an analysis and consolidation of the state standards reviewed. The priority index (scale of 1-5, with 5 being the highest) has been used to identify the content that appeared with the greatest frequency and, thus, deserves a certain level of importance. The higher the priority index, the more energy that should be dedicated to ensuring that the topic and its associated key concepts are covered well.

<b>Summary of State Standard Priorities PreK – K</b>		
<b>Most Common Topics</b>	<b>Key Concepts</b>	<b>Priority Index<sup>1</sup></b>
Health-related fitness knowledge	Give examples of active versus inactive behaviors.	5
Being physically active	Be physically active for more than 60 minutes per day, with most activity at a moderate to vigorous level of intensity; participate in a variety of age-appropriate activities.	4.3
Benefits of physical activity & physical fitness	Understand that the body and brain need physical activity.	3.85
Safe engagement in physical activity	Exhibit body control; wear protective equipment; care for equipment; demonstrate personal safety in school and the neighborhood; identify emergency situations.	3.85
Enjoyment of physical activity	Participate in activities that are enjoyable, and that have social benefits and personal meaning; enjoy the challenge of movement.	3.65
Nutrition	Food is fuel; hydration; eat a variety of foods; MyPlate; eat healthy snacks; try new foods.	3.65
How body systems respond to physical activity engagement	How the heart, lungs, bones & muscles respond to running versus walking; locate the heart; show good posture.	2.95
Social interactions and respecting differences in a physical activity setting	Demonstrate cooperation and consideration of others (e.g., sharing, taking turns) for the purpose of maximizing activity time.	2.95
Planning for physical activity	Set goals to be active at recess.	2.25
Factors that influence physical fitness	Have a positive attitude; identify ways that family influences health and how TV/video influences physical activity engagement.	1.8
<b>Project: (to be added)</b>		

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

Summary of State Standard Priorities Grades 1 – 2		
Most Common Topics	Key Concepts	Priority Index
Health-related fitness knowledge	Classify activities as light, medium or difficult; heart rate; the health-related fitness components; physiological response to physical activity.	5
Enjoyment of physical activity	Participate in activities with friends and family that are enjoyable, challenging, new, fun and/or that allow for self-expression.	4.5
Healthy body composition	Factors related to weight management (e.g., reducing how much you eat, increasing physical activity).	3.7
Engaging in physical activity	Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.	3.7
Benefits of physical activity & physical fitness	Makes heart & lungs stronger; sleep is important for health.	3.7
Steps in decision-making	Take responsibility and make healthy choices.	3.25
Social interactions and respecting differences in a physical activity setting	Be cooperative in a fitness setting; encourage peers; share equipment.	3.25
Safe engagement in physical activity	Use equipment with proper technique; develop injury-prevention strategies; water safety; heat/cold protection; identify emergency situations and know how to call 911	2.90
Muscle endurance and strength	Use own body weight as resistance.	2.75
Nutrition	Balanced diet; nutrients including water; healthy foods; food pyramid; food label reading; plan a healthy snack.	2.60
<b>Project: (to be developed)</b>		

*Note:* The priority index (scale of 1-5, with 5 being the highest) has been used to identify the content that appeared with the greatest frequency and, thus, deserves a certain level of importance. The higher the priority index, the more energy that should be dedicated to ensuring that topic and its associated key concepts are covered well.

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

Summary of State Standard Priorities Grades 3, 4 & 5		
Most Common Topics	Key Concepts	Priority Index
Health-related fitness knowledge	Understand intensity; aerobic versus anaerobic; know the health-related fitness components; physiological responses to physical activity; effect of physical activity on body systems; heart rate.	5
Safe engagement in physical activity	Adjust effort for safe play; be safe during leisure play.	4.3
Planning for physical activity	Track amount of weekly physical activity using assessment tools (e.g., journal, log, pedometer, stopwatch).	4.3
Benefits of physical activity and physical fitness	Impact of regular physical activity on health (e.g., healthy weight, stronger heart, enhanced muscle strength and endurance, strong bones, healthy lungs, sick less often).	4.3
Being physically active	Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.	3.85
Respecting differences and responsible decision-making in a physical activity setting	Show respect for persons of similar and different skill/fitness levels; encourage peers; respectful communication; refrain from put-downs.	3.7
Nutrition	Benefits of healthy food consumption; nutrients; serving and portion size; food labels; nutritional value of foods.	3.55
Fitness assessment and setting goals	Know the health-related fitness components and how they are measured.	3.55
Enjoy physical activity engagement	Select activities to promote self-expression and social interaction; change lifestyle; emotions related to physical activity engagement.	3.45
<b>Project: (to be developed)</b>		

*Note:* The priority index (scale of 1-5, with 5 being the highest) has been used to identify the content that appeared with the greatest frequency and, thus, deserves a certain level of importance. The higher the priority index, the more energy that should be dedicated to ensuring that topic and its associated key concepts are covered well.

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

Summary of State Standard Priorities Grades 6, 7 & 8		
Topics	Key Concepts	Priority Index
Health-related fitness knowledge	Know how to use heart rate as a measure of intensity; reps, sets, eccentric, isometric, concentric terminology; describe training principles; muscle balance; agonist and antagonist muscles.	4.8
Planning for physical activity	Use available technology to monitor physical activity; create a physical activity plan, taking into consideration personal preference, environment and social interaction.	4.35
Being physically active regularly	Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.	4.35
Health benefits of physical activity	Long-term benefits of physical activity; physical inactivity and disease; physiological and psychological benefits.	4.00
Safety issues	Minimize risk of injury; adjusts equipment; prepared for climate; responds appropriate in emergency situations	4.00
Responsible decision-making	Steps in decision-making; respecting differences.	3.90
Factors that influence healthy choices	Fitness choices, peers, family and body image influence as factors that influence fitness; cost/cultural/environmental; the role of media and technology in physical fitness; strategies for overcoming barriers to making healthy choices.	3.80
Fitness assessments	Participates in fitness testing; uses results to set specific fitness goals.	3.70
Understanding the components of health fitness	Compare and contrast health-related fitness components, healthy zones.	2.60
Accurate interpretation of health information	Identify myths, misinformation and stereotyping associated with health-related fitness.	2.50

*Note:* The priority index (scale of 1-5, with 5 being the highest) has been used to identify the content that appeared with the greatest frequency and, thus, deserves a certain level of importance. The higher the priority index, the more energy that should be dedicated to ensuring that topic and its associated key concepts are covered well.

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

Summary of State Standard Priorities Grades 9, 10, 11 & 12		
Topics	Key Concepts	Priority Index
Maintaining PA	Participate in daily health-enhancing and personally rewarding physical activities; Meet CDC guidelines 60 minutes/day of MVPA.	5.0
General health-related fitness knowledge	Training principles impact physical fitness; application of principles of training and FITT; physiological responses (e.g., energy expenditure, HR, respiratory rate, RHR).	4.65
Factors that influence fitness behavior	Analyze how culture, family, peers support & challenge health beliefs, practices and behaviors; influence of participation on fostering appreciation; impact of technology & media; policy; emotions & feelings; individual attitude, determination, motivation.	4.45
Benefits of PA & dangers of low/no PA	Evaluate benefits of regular PA participation on reducing chronic disease risks; interrelationship of physiological responses & physical, mental/intellectual, emotional & social benefits.	4.35
PA/fitness/wellness plan	Design and critique a personal fitness plan; from established goals; apply FITT & training principles to the five HRF components; evaluate & modify plan to meet specific and/or changing needs; apply appropriate technology to achieve/maintain physical fitness; analyze daily health and fitness habits; effective & ineffective warm-up & cool-down techniques.	4.1
Safety issues with fitness	Select proper equipment and apply all appropriate safety procedures; identify risks; CPR/AED; first aid; impact of attitudes.	4.0
Social interaction & respecting differences	Initiate positive social behaviors associated with physical activity; design strategies for a diverse group of individuals to encourage effective participation; analyze how cultural diversity enriches and challenges health behavior.	3.9
Enjoy physical activity engagement	Analyze characteristics of sport and physical activities that are personally enjoyable, challenging and fulfilling; differentiate between intrinsic and extrinsic reasons for participating.	3.6
Fitness/PA assessment	Self-assess health-related fitness status to establish personal fitness goals; meet criterion-referenced age- and gender-specific, health-related fitness standards for components of HRF.	3.55
<b>Project: (to be developed)</b>		

*Note:* The priority index (scale of 1-5, with 5 being the highest) has been used to identify the content that appeared with the greatest frequency and, thus, deserves a certain level of importance. The higher the priority index, the more energy that should be dedicated to ensuring that topic and its associated key concepts are covered well.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Health-Related Fitness Education Standards

(parallel NASPE's National Standards for Physical Education)

**Technique:** Demonstrate competency in techniques needed to perform a variety of moderate to vigorous physical activities.

- Technique in developing cardiovascular fitness.
- Technique when developing muscle strength & endurance activities.
- Technique in developing flexibility.
- Safety techniques.

**Knowledge:** Demonstrate understanding of fitness concepts, principles, strategies and individual differences needed to participate and maintain a health-enhancing level of fitness.

- Benefits of physical activity/dangers of physical inactivity.
- Basic anatomy & physiology.
- Physiological responses to physical activity.
- Components of health-related fitness.
- Training principles (frequency, intensity, time, type, overload, specificity, progression) & workout elements.
- Factors that influence physical activity choices.

**Physical Activity:** Participate regularly in fitness-enhancing physical activity.

- Physical activity participation (e.g., aerobic, muscle strength & endurance, bone strength, flexibility, enjoyment/social/personal meaning).
- Monitor physical activity & create a physical activity plan.

**Health-Related Fitness:** Achieve and maintain a health-enhancing level of health-related fitness.

- Physical fitness assessment & analysis.
- Setting goals & create a fitness-improvement plan.
- Work to improve fitness components.
- Monitor & adjust plan.
- Achieve goals.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Health-Related Fitness Education Standards *(Cont.)*

**Responsible Personal and Social Behaviors:** Exhibit responsible personal and social behaviors in physical activity settings.

- Social interaction/respecting differences.
- Self-management.
- Personal strategies to manage body weight.
- Stress management.

**Values & Advocates:** Value fitness-enhancing physical activity for disease prevention, enjoyment, challenge, self-expression, self-efficacy and/or social interaction, and allocates energies toward the production of healthy environments.

- Values physical activity.
- Advocacy-promoting healthy behaviors.
- Fitness careers.
- Occupational fitness needs.

**Nutrition:** Strive to maintain healthy diet through knowledge, planning and regular monitoring.

- Basic nutrition & benefits of a healthy diet.
- Healthy diet recommendations.
- Assess diet.
- Plan and maintain a healthy diet.

**Consumerism:** Access and evaluate fitness information, facilities, products and services.

- Differentiate between fact and fiction regarding fitness products.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Technique:** Demonstrates competency in techniques needed to perform a variety of moderate to vigorous physical activities.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Technique in developing cardiovascular fitness</b>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate body control when performing cardiovascular activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate body alignment and control in various cardiovascular activities (e.g., running, biking, swimming).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate form (e.g., arm swing forward and back) and principles (e.g., pacing) in cardiovascular activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply the appropriate form, speed and generation of force during cardiovascular activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply rates of perceived exertion (RPE) &amp; pacing.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Technique when developing muscle strength &amp; endurance</b>		<ul style="list-style-type: none"> <li>• Perform mechanically correct muscle strength &amp; endurance exercises (e.g., lifting sand bags, jumping, hopping).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate form when performing resistance activities (e.g., push-ups, crunches).</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze and differentiate among basic musculo-skeletal techniques (e.g., alignment, knee not in front of foot) necessary for participating safely in selected movement forms (e.g., correct musculo-skeletal errors while performing stretching, yoga).</li> </ul>	<ul style="list-style-type: none"> <li>• Apply basic musculo-skeletal techniques necessary for participating in strength &amp; endurance activities.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Technique when developing muscle strength &amp; endurance <i>(Cont.)</i></b>		<ul style="list-style-type: none"> <li>• Demonstrate ability to use one's body as resistance in developing strength &amp; endurance (e.g., hold body in plank position with body straight, animal walks).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the ability to stabilize one's core when performing muscle-strengthening and endurance activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate technique in resistance training using free weights (e.g., sand bells, bars, bands, homemade jug weights).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate proper machine adjustment and techniques on resistance-training machines and proper use of free weights.</li> </ul>	
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Technique when developing flexibility</b>		<ul style="list-style-type: none"> <li>• Demonstrate appropriate technique when stretching major muscle groups, showing proper alignment and stretching without bouncing or hyper-extending joints.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate technique when stretching (e.g., avoid hyper-extension of knees, back flexion, back hyper-extension, pulling on neck, stress on medial knee ligaments).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate correct techniques and methods of stretching (e.g., alignment, no hyper-extension).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate proper alignment while stretching.</li> <li>• Demonstrate variety of appropriate stretching techniques (static, PNF, active isolated, passive).</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Technique when developing flexibility <i>(Cont.)</i>		<ul style="list-style-type: none"> <li>Know to perform stretching only after muscles are warm.</li> </ul>				
			<ul style="list-style-type: none"> <li>Apply understanding that the stretching is to develop and maintain range of motion and is best done at the end of an activity time.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate the difference between dynamic flexibility and static flexibility, and when to target each in a workout.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate variety of appropriate stretching techniques (static, PNF, active isolated, passive).</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Safety techniques</b>	<ul style="list-style-type: none"> <li>• Follow directions; use equipment; wear appropriate attire and move safely in school and community.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply safety strategies, including using body control, following safety signs and using equipment appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust effort to ensure safe play, and use equipment appropriately.</li> <li>• Identify safe &amp; unsafe places to play, such as a backyard &amp; street.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate appropriate etiquette, care of equipment and respect for facilities, and exhibit safe behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>• Hold oneself and others responsible for following safety practices.</li> <li>• Anticipate potentially dangerous consequences of participating in activities, and contribute to the development and maintenance of rules and equipment use that provide for safe participation in physical activities.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Safety techniques</b> <i>(Cont.)</i>		<ul style="list-style-type: none"> <li>• Wear appropriate clothing, use protective equipment and protect the body from weather conditions.</li> <li>• Demonstrate &amp; use appropriate safety procedures in jogging, swimming, biking and other fitness activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Wear appropriate clothing for different weather conditions.</li> <li>• Compare and follow appropriate safety procedures various fitness activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply strategies for protection from cold, heat and sun during activity (e.g., hydration, sunscreen).</li> <li>• Recognize signs of exhaustion.</li> <li>• Analyze and use appropriate safety procedures in fitness activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Differentiate among the three different types of heat illnesses associated with fluid loss (i.e., heat cramps, heat exhaustion, heat stroke) and their symptoms, and the appropriate first aid and prevention responses.</li> <li>• Identify issues associated with exercising in the cold (e.g., frostbite, hypothermia) and the appropriate prevention and first aid responses.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Safety techniques</b> <i>(Cont.)</i>	<ul style="list-style-type: none"> <li>• Understand the effects of asthma on breathing.</li> <li>• Identify emergency situations and how to call 911.</li> </ul>	<ul style="list-style-type: none"> <li>• Know the symptoms of asthma and helpful ways to react.</li> <li>• Identify emergency situations (e.g., person collapses) and how to summon help (call a poison-control facility, seek adult help, call 911).</li> </ul>	<ul style="list-style-type: none"> <li>• Know the strategies for preventing &amp; reducing asthma symptoms.</li> <li>• Identify emergency situations (e.g., person collapses) and how to summon help (call a poison-control facility, seek adult help, call 911).</li> </ul>	<ul style="list-style-type: none"> <li>• Know the strategies for dealing with severe asthma attacks.</li> <li>• Identify emergency situations (e.g., choking, drowning) and safe methods for responding to them (e.g., CPR, universal precautions).</li> <li>• Understand how to access school resources during an emergency.</li> </ul>	<ul style="list-style-type: none"> <li>• Earn certification for first aid, cardio-pulmonary resuscitation (CPR) and automated external defibrillators (AED).</li> <li>• Understand how to access community resources during an emergency</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Knowledge:** Demonstrates understanding of fitness concepts, principles, strategies and individual differences needed to participate and maintain a health-enhancing level of physical fitness.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Benefits of physical activity/dangers of physical inactivity</b>	<ul style="list-style-type: none"> <li>Understand that the body &amp; brain need physical activity for optimal function.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss benefits of being active and having a strong body (e.g., good posture, endurance, injury prevention, more force generation, more capability in play).</li> </ul>	<ul style="list-style-type: none"> <li>Identify the impact of regular physical activity on physical health (e.g., healthy weight, stronger heart, enhanced muscle strength &amp; endurance, strong bones, healthy lungs, less-frequent illness).</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the empowering consequences of being physically fit (e.g., improved cognition, stamina, confidence).</li> </ul>	<ul style="list-style-type: none"> <li>Compare and contrast the health-related benefits of various physical activities (e.g., which provide improved cognition, increased strength, flexibility, cardiovascular endurance, social interaction).</li> <li>Explain the interrelationship of physical activity to physiological responses and physical, mental/intellectual, emotional and social benefits.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Benefits of physical activity/dangers of physical inactivity (Cont.)</b>	<ul style="list-style-type: none"> <li>Identify the benefits of involvement in daily physical activity (e.g., feeling better, sleeping better).</li> </ul>	<ul style="list-style-type: none"> <li>Describe how physical activity improves sleep quality and how sleep helps the body be healthy.</li> </ul>	<ul style="list-style-type: none"> <li>Identify how inactivity can contribute to the development of disease (e.g., unhealthy weight, high blood pressure, low lung capacity).</li> <li>Identify personal psychological &amp; social benefits (e.g., improved self-esteem, better-quality sleep, improved ability to focus and concentrate) of regular physical activity.</li> </ul>	<ul style="list-style-type: none"> <li>Explain the relationship between physical inactivity and chronic disease (e.g., obesity, diabetes, high blood pressure, elevated cholesterol, heart disease, joint-related diseases).</li> <li>Recognize physical activity as a positive opportunity for stress reduction and social interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to search information from a variety of resources to describe risk factors to determine cause-and-effect relationships between lifestyle choices and disease.</li> <li>Analyze the benefits of healthy lifestyle and the consequences of poor nutrition and inactivity.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze possible life differences between unfit and fit individuals at different lifespan.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Benefits of physical activity/dangers of physical inactivity (Cont.)</b>		<ul style="list-style-type: none"> <li>Identify positive feelings from participating regularly in physical activity.</li> </ul>		<ul style="list-style-type: none"> <li>Identify positive mental and emotional aspects of participation in a variety of physical activities.</li> </ul>		
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Basic anatomy and physiology</b>	<ul style="list-style-type: none"> <li>Locate the heart, and relate that it pumps blood throughout the body.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the basic features (e.g., size, location, function) of the heart &amp; lungs.</li> <li>Identify major muscle groups.</li> </ul>	<ul style="list-style-type: none"> <li>Explain the role of the lungs in providing O<sup>2</sup> to the blood and collecting CO<sup>2</sup> from the blood.</li> <li>Understand what major muscles are used in basic exercises.</li> </ul>	<ul style="list-style-type: none"> <li>Explain and label body systems that interact with each other (e.g., blood transporting nutrients from the digestive system).</li> <li>Analyze which pairs of muscles are involved in strength &amp; endurance.</li> </ul>	<ul style="list-style-type: none"> <li>Predict the impact of physical activity on the functioning of body systems.</li> <li>Discuss the importance of balancing the development of strength in opposing muscle groups.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Basic anatomy and physiology</b> <i>(Cont.)</i>		<ul style="list-style-type: none"> <li>• Explain the benefits of good posture.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe how muscles pull on bones to create movement, and how muscles work in pairs by relaxing &amp; contracting.</li> <li>• Understand how to maintain good posture and the relationship among organ health, core stability and good posture.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze the difference among concentric, eccentric and isometric muscle contraction.</li> <li>• Evaluate strategies for maintaining good posture.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply the concepts of concentric, eccentric and isometric contraction to the use of major muscles in basic fitness activities.</li> <li>• Analyze personal posture and identify needs for improvement.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Physiological responses to physical activity</b>	<ul style="list-style-type: none"> <li>Recognize that when you move fast, your heart beats faster and you breathe faster.</li> </ul>	<ul style="list-style-type: none"> <li>Identify the physiological signs of moderate to vigorous physical activity (e.g., increased heart rate, faster breathing, sweating, increase in body temperature).</li> </ul>	<ul style="list-style-type: none"> <li>Define resting heart rate (RHR), and understand its relationship to level of aerobic endurance.</li> <li>Understand specific body responses to physical activity are related to individual levels of fitness</li> </ul>	<ul style="list-style-type: none"> <li>Identify the changes in physiological effects of physical activity on the body (e.g., increased sweating, body odor) as one enters puberty.</li> <li>Understand the physiological responses to physical activity associated with one's level of physical fitness and nutrition balance.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the long-term effects of participating regularly in moderate to vigorous physical activity on the body systems (e.g., respiratory, cardiovascular, muscle system, skeletal system).</li> <li>Identify personal physiological responses to physical activity.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Physiological responses to physical activity <i>(Cont.)</i>			<ul style="list-style-type: none"> <li>• Distinguish between aerobic and anaerobic activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Compare &amp; contrast aerobic versus anaerobic activities; be able to distinguish between the two and provide examples of each.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how and why adult patterns of participating in physical activity change throughout life (i.e., identify the effects of age on the physiological response to physical activity).</li> <li>• Understand the energy forms used in aerobic and anaerobic activities.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Components of health-related fitness</b>			<ul style="list-style-type: none"> <li>Identify five health-related components of fitness e.g., (cardiovascular endurance, muscle strength &amp; endurance, flexibility, body composition). and activities that can be used to develop each component.</li> </ul>	<ul style="list-style-type: none"> <li>Compare &amp; contrast health-related fitness components (cardiovascular endurance, muscle strength &amp; endurance, flexibility, body composition).</li> <li>Distinguish between health-related and skill-related fitness.</li> </ul>	<ul style="list-style-type: none"> <li>Explain how each of the health-related fitness components are improved through the application of training principles.</li> <li>Compare &amp; contrast skill-related fitness with health-related fitness.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Training principles (frequency, intensity, time, type, overload, specificity, progression) &amp; workout elements</b>		<ul style="list-style-type: none"> <li>• Be able to classify activities into “light, medium &amp; difficult” work levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the terms “frequency,” “intensity,” “time” &amp; “type,” and use them in describing a physical activity.</li> <li>• Define basic exercise terminology, such as “repetition” and “set.”</li> </ul>	<ul style="list-style-type: none"> <li>• Describe training principles (frequency, intensity, time, type, overload, progression, specificity) and how they are used to affect physical fitness.</li> <li>• Use the FITT principle (frequency, intensity, time &amp; type), with the terms “repetition” and “set” in describing a personal workout.</li> </ul>	<ul style="list-style-type: none"> <li>• Be able to apply the principles of frequency, intensity, time and type to one’s workout, based on strengths and weaknesses.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Training principles (frequency, intensity, time, type, overload, specificity, progression) &amp; workout elements <i>(Cont.)</i></b>			<ul style="list-style-type: none"> <li>Distinguish among three parts of a workout (warm-up, workout, cool-down).</li> </ul>	<ul style="list-style-type: none"> <li>Self-initiate warm-up and cool-down during activity times.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to analyze heart rate and recovery time, distinguish among three parts of a workout (warm-up, workout, cool-down) on a heart rate graph.</li> </ul>	
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Factors that influence physical activity choices</b>	<ul style="list-style-type: none"> <li>Identify physical activities that are enjoyable.</li> </ul>	<ul style="list-style-type: none"> <li>Describe physical activity preferences.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze personal physical activity preferences.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the roles of individual attitude, motivation and self-determination in selecting fitness activities.</li> </ul>	<ul style="list-style-type: none"> <li>Compare &amp; contrast changes in personal characteristics and activity preferences over one's lifespan.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze what factors can be altered through interventions.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Factors that influence physical activity choices</b> <i>(Cont.)</i>	<ul style="list-style-type: none"> <li>Identify ways in which family influence fitness &amp; fitness decisions.</li> </ul>	<ul style="list-style-type: none"> <li>Describe how family &amp; friends influence fitness behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Describe appropriate strategies for supporting fitness habits on a personal level.</li> <li>Describe how environment, lifestyle, family history, peers and other factors affect physical, social, mental and emotional health.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze preferences and change activities in ways that make them more enjoyable.</li> <li>Analyze factors that influence nutrition and fitness choices, including peers, family and body image.</li> </ul>	<ul style="list-style-type: none"> <li>Explain immediate and long-term effects of fitness decisions on the individual, family and community.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate methods of changing health-related fitness factors.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<p><b>Factors that influence physical activity choices <i>(Cont.)</i></b></p>		<ul style="list-style-type: none"> <li>Describe the environmental, community and cultural factors that influence fitness behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the institutional influences on the health and fitness behaviors of children (e.g., offering after-school activities, community safety education programs, offering a variety of nutritious foods at lunch).</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the factors that influence nutrition and fitness choices, including time, cost, availability, culture &amp; environment.</li> <li>Understand the effects of school policy on healthy and unhealthy eating, and physical activity levels.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the influence of environment, public health policies, government regulations, research and medical advances on personal and community health promotion and disease prevention.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the factors that influence young adults' nutrition and fitness choices, including time, cost, availability, culture and environment.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Factors that influence physical activity choices <i>(Cont.)</i></b>	<ul style="list-style-type: none"> <li>Identify how screen time (TV &amp; computer use) influence fitness and health behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Describe how screen time (TV &amp; computer use) and advertisements influence fitness behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Identify the impact of media (e.g., use of Internet social networking sites) &amp; technology (e.g., heart rate monitors, crosswalk signals) on peer &amp; family fitness behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze the effects of media &amp; technology on school &amp; community fitness behaviors.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the impact of technology, media and advertisements on personal, family and community fitness through physical activity.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Physical Activity:** Participates regularly in fitness enhancing physical activity.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Physical activity participation</b>	<ul style="list-style-type: none"> <li>• Meet Centers for Disease Control and Prevention (CDC) guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises when the body is well warmed up.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises when the body is well warmed up.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises to target specific muscles after they are warmed up.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises to target specific muscles after they are warmed up.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises to target specific muscles after they are warmed up.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet CDC guidelines of 60 or more minutes a day of moderate- or vigorous-intensity aerobic physical activity, and muscle- and bone-strengthening activity at least three days a week, respectively.</li> <li>• Participate regularly in flexibility exercises to target specific muscles after they are warmed up.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Physical activity participation</b> <i>(Cont.)</i>	<ul style="list-style-type: none"> <li>Participate in activities with family that are enjoyable, challenging, fun and that allow for self-expression.</li> </ul>	<ul style="list-style-type: none"> <li>Participate regularly — inside and outside of school — in activities with friends and family that are enjoyable, challenging, new, fun and that allow for self-expression.</li> <li>Participate in activities outside of school, such as active transport to school and chores at home.</li> </ul>	<ul style="list-style-type: none"> <li>Participate regularly — both inside and outside of school — in physical activities that promote self-expression and provide opportunities for social and group interaction.</li> <li>Participate in activities outside of school, such as active transport to school and chores at home.</li> </ul>	<ul style="list-style-type: none"> <li>Explore — both inside and outside of school — a variety of new, enjoyable and challenging physical activities for personal interest, self-expression and social interaction.</li> <li>Engage in lifestyle activities (e.g., using stairs, biking to school, gardening) that increase physical activity.</li> </ul>	<ul style="list-style-type: none"> <li>Participate daily — both inside and outside of school — in daily health-enhancing &amp; personally rewarding physical activities.</li> <li>Choose to engage in lifestyle activities (e.g., using stairs, biking to school, gardening) that increase physical activity.</li> </ul>	<ul style="list-style-type: none"> <li>Participate in daily health-enhancing and personally rewarding physical activities during leisure time.</li> <li>Develop a physically active lifestyle.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Monitor physical activity and create a physical activity plan</b>	<ul style="list-style-type: none"> <li>• Set a weekly goal to be active at recess.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a weekly or monthly activity calendar, or plan to stimulate and monitor one's participation in physical activity outside of school with family members.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to monitor one's physical activity and set a personal fitness goal.</li> <li>• Track one's amount of weekly physical activity using assessment tools (e.g., journal, log, pedometer, stopwatch).</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to monitor one's physical activity and create a physical activity plan that takes into consideration personal preference, environment and social interaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to develop &amp; monitor a personalized physical activity plan to address deficiencies in one's physical activity level through the use of a pedometer, heart rate monitor and/or a physical activity log, or other appropriate technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to develop and self-monitor short- and long-term personalized physical activity plans to address deficiencies in one's physical activity level through the use of appropriate technology.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Physical Fitness:** Achieves and maintains a health-enhancing level of physical fitness.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Physical fitness assessment &amp; analysis</b>			<ul style="list-style-type: none"> <li>Participate in FitnessGram<sup>®</sup> assessment (e.g., muscle strength &amp; endurance, cardiovascular endurance, flexibility, body composition), and determine which scores fall within the healthy zone and which signal improvement needed.</li> </ul>	<ul style="list-style-type: none"> <li>Self-assess health-related fitness using FitnessGram<sup>®</sup> (e.g., muscle strength &amp; endurance, cardiovascular endurance, flexibility, body composition), and identify the meaning of each score in relation to the criterion score and personal health.</li> </ul>	<ul style="list-style-type: none"> <li>Self-assess health-related fitness using a nationally recognized health-related fitness assessment (e.g., muscle strength &amp; endurance, cardiovascular endurance, flexibility, body composition), and identify which scores fall within the healthy zone and which signal improvement needed.</li> </ul>	<ul style="list-style-type: none"> <li>Self-assess health-related fitness using personally preferred health-related fitness tests, and identify the need for improvement.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Physical fitness assessment & analysis <i>(Cont.)</i>			<ul style="list-style-type: none"> <li>Recognize which test item is related to which fitness component.</li> </ul>		<ul style="list-style-type: none"> <li>Use technology (e.g., heart rate monitors, electrical impedance) to assess physical fitness.</li> <li>Identify areas in need of improvement for meeting personal goals (e.g., run in a 10K race).</li> <li>Understand the differences between criterion- and norm-referenced standards.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Set goals &amp; create a physical fitness improvement plan</b>			<ul style="list-style-type: none"> <li>Analyze personal physical fitness assessment results and choose areas on which to focus.</li> <li>Select appropriate activities as part of one's health-related fitness plan, taking into consideration personal preference, environment and value of social interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to analyze information gathered from fitness assessment to set SMART (specific, measurable, attainable, realistic, time-delimited) goals.</li> <li>Select appropriate activities to create and engage in an individualized physical fitness plan, based on the fitness training principles (FITT, overload, progression, specificity), that supports personal goal attainment.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to evaluate personal physical fitness assessment results and develop intermediate and long-term fitness plans.</li> <li>Design and implement a personal fitness plan, addressing personal goals, that incorporates THR, FITT and basic training principles.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to analyze personal physical fitness assessment results and create intermediate and long-term fitness plans.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Set goals &amp; create a physical fitness improvement plan <i>(Cont.)</i></b>				<ul style="list-style-type: none"> <li>• Know how to calculate target heart rate and apply HR information (THRZ, resting HR, above zone) to one's personal fitness plan.</li> <li>• Discuss the importance of balancing the development of strength in opposing muscle groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Create a plan, and train for and participate in a community event (e.g., 5K, 10 K, triathlon, swimming event, cycling event) that shows improvement in cardiovascular endurance.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Work to improve fitness components</b>		<ul style="list-style-type: none"> <li>Participate in targeted activities based on age &amp; gender to improve each fitness component.</li> </ul>	<ul style="list-style-type: none"> <li>Participate in targeted activities based on age &amp; gender to improve each fitness component.</li> </ul>	<ul style="list-style-type: none"> <li>Participate in targeted activities based on age &amp; gender to improve each fitness component.</li> </ul>	<ul style="list-style-type: none"> <li>Participate in targeted activities based on age &amp; gender to improve each fitness component.</li> </ul>	<ul style="list-style-type: none"> <li>Engage in preferred activities that one can use to enhance all five components of fitness.</li> </ul>
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Monitor &amp; adjust plan</b>			<ul style="list-style-type: none"> <li>Monitor progress through periodic fitness tests &amp; workout journals.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor progress through periodic fitness tests, activity journals &amp; computer software programs, and make adjustments as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor improvement on the components of fitness using available technology, and make adjustment as needed.</li> </ul>	<ul style="list-style-type: none"> <li>Self-monitor improvement on the components of fitness using available technology, and make adjustment as needed on a regular basis.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Achieve goals</b>			<ul style="list-style-type: none"> <li>• Meet healthy zone requirements in each of the Fitness-Gram® assessment items.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet healthy zone requirements in each of the Fitness-Gram® assessment items.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet healthy zone requirements in each of the Fitness-Gram® assessment items.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet healthy zone requirements in each of the Fitness-Gram® assessment items.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Responsible Personal & Social Behaviors:** Exhibits responsible personal & social behaviors in physical activity settings.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Social interaction/respecting differences</b>	<ul style="list-style-type: none"> <li>• Demonstrate cooperation &amp; consideration of others that maximizes activity time (e.g., sharing, taking turns).</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate behaviors of a good fitness partner, including being encouraging, cooperative and willing to work with any partner.</li> </ul>	<ul style="list-style-type: none"> <li>• Show respect for people of similar and different skill/fitness levels (e.g., encourage peers, communicate respectfully, refrain from put-downs).</li> <li>• Recognize and experience physical activities and habits from diverse cultures.</li> </ul>	<ul style="list-style-type: none"> <li>• Participate respectfully and display sensitivity toward the feelings of others while participating in fitness activities with students of different abilities, gender, skills &amp; cultures.</li> <li>• Analyze how cultural diversity enriches and challenges healthy behavior.</li> </ul>	<ul style="list-style-type: none"> <li>• Invite and participate with others in physical activity, regardless of varying skills, abilities, limitations and cultural backgrounds.</li> <li>• Analyze the influences sport participation on developing appreciation for cultural, ethnic, gender and physical diversity.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Self-management</b>	<ul style="list-style-type: none"> <li>• Describe the times in the day that you like to be active.</li> <li>• Identify factors that encourage you to stay active.</li> <li>• Describe the food you like the most and the chances you have to choose healthy foods.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe ways in which to take personal responsibility for fitness behaviors (e.g., limit TV, choose to play with friends, choose nutritious food).</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and use appropriate strategies to self-reinforce positive physical activity and eating behaviors.</li> <li>• Attend to feelings during &amp; after physical activity and during &amp; after eating; use the information to modify physical activity &amp; diet accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe ways in which to overcome emotional, time, access and environmental barriers to meet/exceed national recommendations for physical activity at least five days each week and, preferably, daily.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze barriers and modify physical activity plans as needed.</li> <li>• Analyze characteristics of sport &amp; physical activities that are personally enjoyable, challenging &amp; fulfilling, and choose activities accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate barriers and modify physical activity plans appropriately, as needed.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Self-management (Cont.)</b>	<ul style="list-style-type: none"> <li>Identify ways in which to be responsible for one's individual fitness.</li> </ul>	<ul style="list-style-type: none"> <li>Choose ways in which to be responsible for one's individual fitness.</li> </ul>	<ul style="list-style-type: none"> <li>Describe strategies that enhance achievement of goals (e.g., set appropriate goals, monitor/track behaviors, reinforce/reward small steps).</li> <li>Accept responsibility for improving one's level of physical activity &amp; fitness.</li> </ul>	<ul style="list-style-type: none"> <li>Identify &amp; use appropriate strategies to self-reinforce positive fitness behaviors.</li> <li>Differentiate between intrinsic and extrinsic reasons for participating in physical activity, and use each appropriately.</li> <li>Accept responsibility for improving one's level of physical activity &amp; fitness.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze how personal choices can affect long-term health.</li> <li>Accept responsibility for improving one's level of physical activity &amp; fitness.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Personal strategies for managing body weight</b>	<ul style="list-style-type: none"> <li>Identify important strategies for controlling weight (e.g., be active, eat healthy).</li> </ul>	<ul style="list-style-type: none"> <li>Identify factors related to weight management (e.g., reducing calories, increasing physical activity).</li> </ul>	<ul style="list-style-type: none"> <li>Describe the relationship between caloric balance and weight gain/loss.</li> <li>Use a food log and activity log and or available technology to calculate energy balance</li> </ul>	<ul style="list-style-type: none"> <li>Identify food choices or physical activity enhancements based on one's personal log that would create energy balance, weight loss, and/or weight gain.</li> <li>Discuss the difference between types of eating (e.g., fueling for performance, emotional, eating, social eating; eating while watching TV or sport events).</li> </ul>	<ul style="list-style-type: none"> <li>Apply appropriate strategies to ensure adequate sleep; apply food choices or physical activity enhancements based on one's personal log that would create energy balance, weight loss and/or weight gain.</li> <li>Identify physical activity's role in increasing basal metabolic rate for improving energy balance.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze &amp; apply strategies for managing personal body weight.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Personal strategies for managing body weight <i>(Cont.)</i></b>			<ul style="list-style-type: none"> <li>Identify strategies for seeking weight-management help.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to compare &amp; contrast various strategies for seeking weight-management help.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to apply strategies as needed for seeking weight-management help.</li> </ul>	<ul style="list-style-type: none"> <li>Use available technology to seek weight-management help.</li> </ul>
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Stress Management</b>	<ul style="list-style-type: none"> <li>Identify factors related to happy/unhappy feelings.</li> </ul>	<ul style="list-style-type: none"> <li>Recognize feelings of stress &amp; stressful situations.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze stressful feelings &amp; situations and their impact on the body.</li> </ul>	<ul style="list-style-type: none"> <li>Log situations &amp; behaviors that influence stress and how they affect the body.</li> </ul>	<ul style="list-style-type: none"> <li>Log situations &amp; behaviors that influence stress and the effectiveness of physical strategies used to deal with stress.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust self-stress levels as needed.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Stress Management</b> <i>(Cont.)</i>	<ul style="list-style-type: none"> <li>Practice strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).</li> </ul>	<ul style="list-style-type: none"> <li>Describe &amp; demonstrate appropriate strategies for dealing with stress (e.g., deep breathing, knowing whom to talk to).</li> </ul> <p>Practice strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).</p>	<ul style="list-style-type: none"> <li>Identify positive &amp; negative results of stress, and appropriate ways to deal with each.</li> <li>Predict how neglecting personal responsibilities might increase stress.</li> </ul> <p>Practice strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).</p>	<ul style="list-style-type: none"> <li>Compare &amp; contrast a variety of personal coping and stress-management strategies.</li> </ul> <p>Practice strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).</p>	<ul style="list-style-type: none"> <li>Research physical activity &amp; fitness effectiveness in coping with and overcoming feelings of stress.</li> </ul> <p>Practice strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).</p>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Values & Advocates:** Values health-related fitness for disease prevention, enjoyment, challenge, self-expression, self-efficacy and/or social interaction, and works for healthy environments.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Values physical activity</b>	<ul style="list-style-type: none"> <li>• Develop a positive attitude toward regular physical activity.</li> <li>• Identify ways in which becoming physically fit improves quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>• Value physical activity &amp; fitness for health, enjoyment, challenge, self-expression and/or social interaction.</li> <li>• Describe ways in which becoming physically fit improves quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>• Exhibit positive feelings/enjoyment about participation in physical activity.</li> <li>• Recognize that skill competency &amp; fitness lead to enjoyment of movement &amp; physical activity.</li> <li>• Analyze ways in which becoming physically fit empowers you.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose activities that are personally rewarding.</li> <li>• Evaluate the enjoyment, self-expression, challenge and social benefits experienced by achieving one's best in physical activities.</li> <li>• Evaluate how becoming physically fit empowers you.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze roles of attitude, motivation, self-expression, challenge, social interaction &amp; determination in achieving personal satisfaction from challenging physical activities.</li> <li>• Value the ways in which becoming physically fit empowers you.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Advocacy: Promoting healthy behaviors</b>	<ul style="list-style-type: none"> <li>Encourage family members to participate in fitness-related activities.</li> </ul>	<ul style="list-style-type: none"> <li>Identify ways in which to promote personal fitness in schools.</li> </ul>	<ul style="list-style-type: none"> <li>Encourage &amp; assist family members &amp; peers in making positive health choices (e.g., eat healthy foods, be physically active).</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate ways in which to influence &amp; support others in making positive fitness choices.</li> <li>Use available technology to identify community agencies that advocate for healthy individuals, families, communities and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Independently and/or cooperatively devise &amp; implement a strategic plan that promotes appropriate health/fitness issues/concerns to a target audience.</li> <li>Know techniques for funding school, community &amp; workplace physical activity programs.</li> </ul>	<ul style="list-style-type: none"> <li>Independently implement a strategic plan that promotes appropriate health or fitness.</li> <li>Apply techniques for seeking funding for campus fitness programs.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Advocacy: Promoting healthy behaviors</b>			<ul style="list-style-type: none"> <li>• Act as a positive role model for fitness in school.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to advocate for and convey accurate fitness information about the benefits of choosing foods and increasing one's physical activity.</li> <li>• Act as a positive role model for fitness in the family.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to coordinate with others to advocate for improving personal, family and community fitness.</li> <li>• Act as a positive role model for fitness in the community.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to engage &amp; support the improvement and implementation of fitness-related policies in family, school and communities.</li> <li>• Influence &amp; support others in making appropriate fitness-related decisions.</li> <li>• Participate as a knowledgeable, reflective, creative and critical member of a variety of fitness communities.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Fitness careers</b>		<ul style="list-style-type: none"> <li>• Discuss the influence that fitness professionals (e.g., doctors, PE teachers) have on personal health.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify various local physical education/fitness careers &amp; services.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore career opportunities in the health-related fitness profession and the roles they play in meeting the needs of fitness consumers.</li> <li>• Explore the personal attributes required for selected physical education/fitness careers.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze health- and fitness-related careers, and evaluate personal compatibility.</li> <li>• Log professional responsibilities and opportunities for employment in professions associated with physical activity.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Occupational fitness needs</b>				<ul style="list-style-type: none"> <li>• Discuss components of health- and skill-related fitness necessary for performing successfully and safely in various occupations.</li> </ul>	<ul style="list-style-type: none"> <li>• Create a fitness/wellness plan that one in a sedentary career could use to maintain health-related fitness.</li> <li>• Analyze components of health- and skill-related fitness necessary for performing successfully and safely in various occupations.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify questions to ask potential employers about their support of healthy lifestyles.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

**Nutrition:** Strives for a healthy diet through knowledge, planning and regular monitoring.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Basic nutrition &amp; benefits of a healthy diet</b>	<ul style="list-style-type: none"> <li>• Describe the importance of food as fuel.</li> <li>• Identify characteristics of food, including smell, taste, color &amp; texture.</li> <li>• Know where food comes from (e.g., plants, not stores).</li> </ul>	<ul style="list-style-type: none"> <li>• Describe how a balanced &amp; nutritious diet is related to weight, energy, appearance &amp; health.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the benefits of consuming water, fruits, vegetables, grains and calcium-rich foods; decreasing fat intake; and moderating sugar intake.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the relationship between poor nutrition and health risk factors.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze the importance of nutrition on health &amp; well-being.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Basic nutrition &amp; benefits of a healthy diet <i>(Cont.)</i></b>	<ul style="list-style-type: none"> <li>Demonstrate the ability to select healthy snacks.</li> </ul>	<ul style="list-style-type: none"> <li>Identify foods to avoid and foods to encourage.</li> <li>Recognize that sugar, salt &amp; fat can make a healthy food less healthy.</li> </ul>	<ul style="list-style-type: none"> <li>Identify criteria for healthy and unhealthy foods, and categorize common items.</li> <li>Identify strategies for dealing with personal food preferences, restrictions &amp; barriers.</li> <li>Understand the definition of a calorie as a unit of energy.</li> <li>Identify foods that are sources of the major nutrients (carbohydrates, protein, fat, vitamins, water).</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the prevalence, causes and long-term consequences of unhealthy eating.</li> <li>Identify the caloric content &amp; benefits of, and daily recommendations for fats, proteins and carbohydrates.</li> </ul>	<ul style="list-style-type: none"> <li>Assess the benefit of consuming adequate amounts of vitamins, minerals, fiber, folic acid &amp; water, and identify foods that contain high amounts of each nutrient.</li> <li>Describe how nutrients are released, absorbed, used &amp; excreted by the body.</li> <li>Discuss the effects of supplements on the body.</li> </ul>	

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Healthy diet recommendations</b>	<ul style="list-style-type: none"> <li>• Understand the importance of eating a variety of foods.</li> <li>• Accept opportunities to drink water (e.g., before, during, after physical activity).</li> </ul>	<ul style="list-style-type: none"> <li>• Classify foods correctly into appropriate MyPlate groups.</li> <li>• Identify water as an essential nutrient.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the number of daily required servings from each of the five MyPlate food groups and the recommended serving sizes.</li> <li>• Identify the recommended amount of water to be consumed each day.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify foods within each of the five MyPlate food groups and select appropriate servings &amp; portions for one's age and physical activity levels.</li> <li>• Explain the needs for and benefits of hydration during physical activity.</li> <li>• Recognize factors that can affect hydration status (e.g., clothing, weather, helmets).</li> </ul>	<ul style="list-style-type: none"> <li>• Describe federal dietary guidelines, food groups, nutrients and serving sizes for healthy eating habits.</li> <li>• Summarize the effects of hydration &amp; dehydration on physical and mental performance, the risks of dehydration and how to maintain hydration.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the recurrent healthy recommendations &amp; guidelines for a nutritious diet.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Healthy diet recommendations <i>(Cont.)</i>		<ul style="list-style-type: none"> <li>Recognize that food &amp; drinks have nutrition labels, and examine them to locate specific components (e.g., servings per container).</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate the ability to interpret nutrition information (e.g., food labels).</li> <li>Identify how peers and the media influence the development of eating disorders.</li> </ul>	<ul style="list-style-type: none"> <li>Compare &amp; contrast nutrient information on food labels to make informed decisions regarding healthy food choices.</li> <li>Describe the causes, symptoms, consequences &amp; treatments for common eating disorders: bulimia, anorexia nervosa &amp; binge eating.</li> </ul>	<ul style="list-style-type: none"> <li>Know to use body weight and urine color to monitor hydration status.</li> <li>Draw conclusions from food labels for calories, types of fats and empty calories, and make recommendations on healthy choices.</li> <li>Differentiate among eating disorders, their resulting symptoms and their effects on healthy growth and development.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate resources for seeking help for people with eating disorders.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Healthy diet recommendations <i>(Cont.)</i>					<ul style="list-style-type: none"> <li>• Discuss psychological implications associated with eating disorders.</li> <li>• Identify resources for seeking help for people with eating disorders.</li> </ul>	
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
Assess diet	<ul style="list-style-type: none"> <li>• Identify fruits &amp; vegetables eaten.</li> </ul>	<ul style="list-style-type: none"> <li>• Count the servings of fruits &amp; vegetables eaten in a day.</li> </ul>	<ul style="list-style-type: none"> <li>• Record eating habits and compare personal food choices with MyPlate.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to compare one's food log with MyPlate recommendations.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to assess &amp; analyze personal nutrition needs, preferences &amp; practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to evaluate one's diet and identify deficiencies on a regular basis.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Assess diet</b> <i>(Cont.)</i>					<ul style="list-style-type: none"> <li>• Design a personal nutrition log that documents food intake, calories consumed &amp; nutrition needs, and analyze the results.</li> </ul>	
Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Plan &amp; maintain a healthy diet</b>	<ul style="list-style-type: none"> <li>• Remain open to trying new foods.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan a healthy meal or snack.</li> <li>• Demonstrate healthy nutrition choices for meals &amp; snacks.</li> </ul>	<ul style="list-style-type: none"> <li>• Plan a day of healthful, balanced meals &amp; snacks.</li> <li>• Select healthy foods from a fast-food restaurant menu.</li> </ul>	<ul style="list-style-type: none"> <li>• Create &amp; implement a healthy meal plan for your physical activity level using MyPlate guidelines.</li> <li>• Develop strategies to balance healthy food, snacks &amp; water intake with daily physical activity.</li> </ul>	<ul style="list-style-type: none"> <li>• Set a personal goal based on a dietary analysis to enhance health and track progress toward the goal.</li> <li>• Describe how to adjust one's diet to accommodate changing activity levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a diet plan to achieve energy balance.</li> <li>• Document personal diet modifications.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

**Consumerism:** Accesses and evaluates fitness information, facilities, products and services.

Descriptor	PreK-K Benchmark	Grades 1-2 Benchmark	Grades 3-5 Benchmark	Grades 6-8 Benchmark	Grades 9-12 Benchmark	Higher Education Benchmark
<b>Differentiate between fact and fiction regarding fitness products</b>		<ul style="list-style-type: none"> <li>• Understand that advertisements are created to sell products, not suggest foods that are good for you.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify content of advertisements related to fitness behaviors &amp; products (e.g., fast food, candy, milk).</li> <li>• Use technology to identify sources and characteristics of valid health information.</li> <li>• Distinguish among myth, fact and opinion related to health information and fitness products.</li> </ul>	<ul style="list-style-type: none"> <li>• Use available technology to identify myths, misinformation and stereotyping (e.g., false advertising, spot reducing) associated with health-related fitness.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology to distinguish between facts and myths regarding nutrition practices, products and physical performance.</li> <li>• Analyze advertised diet plans for feasibility, caloric intake and promotion of physical activity.</li> <li>• Distinguish between factual and fictitious ideas about weight control.</li> </ul>	<ul style="list-style-type: none"> <li>• Search for &amp; analyze fitness products and resources available in the community.</li> <li>• Analyze the cost &amp; accessibility of fitness services.</li> <li>• Demonstrate the ability to access school &amp; community fitness services for self and others.</li> </ul>

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Chapter 5. Realizing the Scope & Sequence of Fitness Education

This S&SFE will not be effective if the in-service professional training and necessary resources are not in place. The following recommendations were made to facilitate the S&SFE implementation process.

#### ***In-service training and online modules***

The most recent knowledge, skills and technology related to fitness education have been included in the S&SFE, and many in-service teachers may not feel prepared enough to teach them. Therefore, the project team recommends that NASPE add to its Physical Best PIPEline workshops and develop a series of online teaching modules to help in-service teachers update their pedagogical and subject-matter knowledge and skills. Teacher training institutions should integrate this information into ongoing training program.

#### ***Resources***

Each physical education program must have the basic resources to implement the S&SFE effectively. It is unrealistic to expect physical education teachers to deliver high-quality fitness education without the fundamental resources. The project team recommends that secondary schools have a weight training room with basic equipment for fitness instruction. A list of specific equipment and technology needed to effectively provide for instruction and learning should be gathered and shared.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

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## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Glossary

**Assessment:** Interpretation of measurements quality.

**Benchmark:** A measure against which performance is compared.

**Body composition:** The proportion of fat-free mass (e.g., muscle, bone, vital organs, tissues) to fat mass in the body.

**Cardiovascular endurance:** A health-related fitness component that relates to the ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity.

**Centers for Disease Control and Prevention (CDC):** Federal agency within the U.S. Public Health Service responsible for tracking disease incidence and taking action to control the incidence of such diseases.

**Components of health-related physical fitness:** Muscle strength, muscle endurance, aerobic capacity, flexibility and body composition.

**Criterion-referenced standards:** Preset and expert-determined standards for evaluating performance competencies.

**Dehydration:** The loss of water and important blood salts, such as potassium and sodium, that are essential for vital organ functions.

**Descriptors:** Indicators used to specify categories of teaching content.

**Exercise:** Planned and structured body movement undertaken to improve or maintain physical fitness.

**Fitness tests:** Tests that are designed to evaluate physical fitness. The components of fitness tests depend on what types of fitness are assessed.

**FITT:** Fitness, intensity, time and type of activity.

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

### Glossary (Cont.)

**Flexibility:** The ability of the joints, muscles and tendons to move freely with full range of motion.

**Healthy heart rate zone:** A range of [heart rates](#) that maximizes health improvement while minimizing risk of cardiac malfunction.

**Health-related fitness:** State of physical and mental well-being that allows the body to perform daily tasks efficiently. Measure of the state of the body in areas related to health that usually include cardiovascular endurance, muscle strength, muscle endurance, flexibility and body composition

**Health-related fitness test:** A means of determining the quality of health-related fitness.

**Heart rate:** Number of times that the heart beats per minute.

**Large-muscle groups:** Muscles that have a large mass relative to other muscle groups in the body. *Examples:* muscles in the upper arms, back and legs.

**Manipulative activities:** Activities involving the use of equipment, such as kicking, jumping rope and passing.

**Moderate activity:** Physical activity requiring or involving the use of great energy or effort at 50 percent to 75 percent of maximum heart rate. Brisk walking, hiking, and riding a bike on level terrain are examples of moderate physical activity.

**Muscle endurance:** The ability of a muscle or muscle group to perform repeated contractions at a certain pace.

**Muscle strength:** The amount of force exerted or resistance overcome by a muscle for a single repetition.

**Physical activity:** Body movement produced by the contraction of skeletal muscles that results in energy expenditure. It is a broader term than “exercise.”

**Physical fitness:** State of physical well-being that allows the body to perform daily tasks efficiently. The terms “health-related fitness” and “physical fitness” are interchangeable.

**Scope:** The breadth of content.

## Scope & Sequence of Fitness Education for PreK–16 Programs *(Cont.)*

### Glossary *(Cont.)*

**Sequence:** The order in which content is presented.

**Skill-related fitness:** Ability to perform the elements of agility, balance, speed and coordination.

**Standards:** Expectations of learning outcomes.

**Target heart rate zone:** A safe range of activity intensity that can be used to most effectively enhance the level of aerobic capacity. A targeted heart rate zone is expressed as percentages of a person's [maximum heart rate \(HRmax\)](#).

**Understanding:** Insight into key ideas, as reflected in thoughtful and effective use of knowledge and skills in varied situations.

**Vigorous activity:** Physical activity requiring or involving the use of great energy or effort at or more than 75 percent of maximum heart rate.

**Warm-up exercises:** Low-intensity exercises that prepare the musculoskeletal system and the cardiorespiratory system (heart and lungs) for high-intensity physical activity.

**Workout:** A session of exercise or practice intended to improve fitness.

## Scope & Sequence of Fitness Education for PreK–16 Programs (Cont.)

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