The Essential Components of Physical Education

Over the past two decades, physical education has undergone a transformation in rigor and focus and now is recognized as essential to a young person’s overall education experience and a foundation for lifelong healthy living.

SHAPE America has helped spearhead that transformation and, in the past year alone, redefined physical education in its book, *National Standards & Grade-Level Outcomes for K-12 Physical Education* (2014), as the pursuit of “physical literacy” (Figure 1), which parallels the terminology used in other subjects such as health and mathematics. The new National Standards (Figure 2) — and their accompanying Grade-Level Outcomes — identify the skills and knowledge necessary to support the development of physically literate individuals: those who have the knowledge, skills and confidence to enjoy a lifetime of physical activity (SHAPE America, 2014, p. 4).

More recently, SHAPE America has re-envisioned the essential components that provide the structure for a physical education program (p. 4). The purpose of this document is not only to delineate those essential components, but also to identify physical education as a key element of a well-rounded education for all students.

**National Recommendation and Framework**

In 2008, the U.S. Department of Health and Human Services issued *2008 Physical Activity Guidelines for Americans*, age 6 and older, which recommend that children and adolescents should engage in

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**Figure 1. Physical Literacy**

To pursue a lifetime of healthful physical activity, a physically literate individual:

- Has learned the skills necessary to participate in a variety of physical activities.
- Knows the implications and the benefits of involvement in various types of physical activities.
- Participates regularly in physical activity.
- Is physically active.
- Values physical activity and its contributions to a healthful lifestyle.

— *National Standards & Grade-Level Outcomes for K-12 Physical Education* (2014), SHAPE America.
60 minutes or more of physical activity daily (USDHHS, 2008, p. 16). The comprehensive school physical activity program (CSPAP) (Figure 3) has been recognized as the new national framework for physical education and physical activity for young people (CDC, 2014, p. 2). This framework supports physical activity participation among young people as recommended in the National Physical Activity Plan (National Physical Activity Plan Alliance, 2010). A CSPAP not only educates youth in the knowledge and application of skills learned, but also mobilizes them to apply what they have learned and adopt a healthy lifestyle. A CSPAP is a multi-component approach by which school districts and schools use all opportunities for students to be physically active throughout the school day in order to meet the national physical activity recommendation (CDC, 2013, p. 12).

A CSPAP reflects strong coordination and synergy across all of its five components: physical education as the foundation, physical activity during school, physical activity before and after school, staff involvement, and family and community engagement (CDC, 2013, p. 12). At the heart of the new framework, physical education provides youth with the fundamental education and skills needed to make decisions regarding physical activity.

Physical activity during the school day includes active recess, physical activity integrated into classroom lessons, physical activity breaks in and outside the classroom, and lunchtime club or intramural programs. These opportunities must be offered to all grade levels and must not exclude middle and high school students, who will benefit from engaging in physical activity throughout the school day (CDC, 2013, p. 14).

Physical activity before and after school provides opportunities for all students to practice what they have learned in physical education and become more adequately prepared for learning. School employees play an integral role in a school’s CSPAP by committing to good health practices and serving as positive role models for students by demonstrating active lifestyle choices in and out of school. Family and
community engagement in school-based physical activity programs provides health benefits and positive influences, and creates a connection between schools and community-based programs (CDC, 2013, p. 14).

**Physical Education: The Foundation of CSPAP**

Physical education is an academic subject and serves as the foundation of a CSPAP and, as such, demands the same education rigor as other core subjects. Physical education provides students with a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge and behaviors for active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence.

During physical education, students practice the knowledge and skills they learn through physical activity, which is defined as any bodily movement that results in energy expenditure. Students also engage in exercise — any physical activity that is planned, structured and repetitive — for the purpose of improving or maintaining one or more components of fitness (CDC, 2013, p. 8). It is important to clarify the common technical language used in physical education; the terms physical education, physical activity and exercise often are used interchangeably but clearly, they define three very different things. (Figure 4)

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**Figure 4. Defining Physical Activity, Exercise and Physical Education**

<table>
<thead>
<tr>
<th>PHYSICAL ACTIVITY</th>
<th>EXERCISE</th>
<th>PHYSICAL EDUCATION</th>
</tr>
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<tbody>
<tr>
<td>Physical activity is any bodily movement that results in energy expenditure.</td>
<td>Exercise is any physical activity that is planned, structured and repetitive for the purpose of improving or maintaining one or more components of fitness.</td>
<td>Physical education is an academic subject that provides a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge and behaviors for healthy, active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence.</td>
</tr>
</tbody>
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Physical education develops the physically literate individual through deliberate practice of well-designed learning tasks that allow for skill acquisition in an instructional climate focused on mastery (SHAPE America, 2014, p. 10). Physical education addresses the three domains of learning: cognitive or mental skills related to the knowledge of movement; affective, which addresses growth in feelings or attitudes; and psychomotor, which relates to the manual or physical skills related to movement literacy (SHAPE America, 2014, p. 4).

A well-designed physical education program:

- Meets the needs of all students;
- Keeps students active for most of physical education class time;
- Teaches self-management;
- Emphasizes knowledge and skills for a lifetime of physical activity; and
- Is an enjoyable experience for all students (CDC, 2013, p. 12).
The Essential Components of Physical Education

Physical education (Figure 5) includes four essential components that provide the structure for this fundamental subject area:

1. Policy and environment;
2. Curriculum;
3. Appropriate instruction; and
4. Student assessment.

Defining the essential components of physical education raises awareness for the critical policies and practices that guide school districts and schools in addressing students’ education needs. School districts and schools also must establish the written curriculum that defines what is to be taught, guides rigorous instruction that supports the curriculum and identifies student assessment that will provide evidence of student learning.

Policy and Environment

School districts and schools define physical education expectations through specific physical education policy and policy guidance. Well-defined policy helps create an environment that ensures that all students receive physical education that defines student outcomes clearly. It also increases consistency in the delivery of education to students.

The physical education policies listed in Figure 6 should be included in the required local school wellness policy and should identify the program elements, environmental metrics and expected standards for all students. Strong policy is important to ensuring that state requirements are implemented throughout school districts and schools at all grade levels, for all students.

Policy language — such as the terms waivers, exemptions and substitutions — can be confusing and often needs clarification. State-level policy may exist regarding waivers, exemptions and substitutions. When state-level policies regarding waivers, exemptions and/or substitutions are in place, school district and school policies must align with them. In the absence of state-level policies, school districts and/or schools

Figure 6. Policy and Environment

- Every student is required to take daily physical education in grades K-12, with instruction periods totaling 150 minutes/week in elementary and 225 minutes/week in middle and high school.
- School districts and schools require full inclusion of all students in physical education.
- School districts and schools do not allow waivers from physical education class time or credit requirements.
- School districts and schools do not allow student exemptions from physical education class time or credit requirements.
- School districts and schools prohibit students from substituting other activities (e.g., JROTC, interscholastic sports) for physical education class time or credit requirements.
- Physical education class size is consistent with that of other subject areas and aligns with school district and school teacher/student ratio policy.
- Physical activity is not assigned or withheld as punishment.
- Physical education is taught by a state-licensed or state-certified teacher who is endorsed to teach physical education.
are responsible for establishing policies for waivers, exemptions and substitutions. Examples of these three policy areas follow.

- **Waivers.** In many states, school districts or schools may apply for a waiver from state-mandated physical education policy, requirement or law. When a waiver is granted, the school district or school no longer is required to provide students with state-mandated physical education class time or credit. State, school district and school policy should not allow waivers for physical education class time or credit requirements.

- **Exemptions.** School districts and schools sometimes allow students to be exempted from physical education class time or credit, even if physical education credit is required for graduation. Instead of completing physical education courses and required credits, exempted students may participate in other academic courses or activities such as advanced placement courses, work as a teacher’s assistant, etc. School districts and schools also sometimes allow exemptions from physical education class time or credit due to medical illness or disability. State, school district and school policy should not allow exemptions from physical education class time or credit requirements.

- **Substitutions.** Some school districts and schools allow students to substitute other activities (e.g., JROTC, interscholastic sports, community sports, cheer leading, marching band) for physical education class time or credit. State, school district and school policy should prohibit students from substituting other activities for required physical education class time or credit.

All three — waivers, exemptions and substitutions — are policies that eliminate the opportunity for all students to experience physical education. Close scrutiny of policy in states, school districts and schools is critical so that all students are provided with an education experience that includes physical education.

**Curriculum**

National standards provide school districts and schools with guidance and direction for clarifying the common general outcomes expected in physical education programs. New national Grade-Level Outcomes for K-12 Physical Education (SHAPE America, 2013) define the skills that students should learn at critical grade levels, but they don’t tell teachers how to develop lessons, how to instruct students or which learning experiences will lead students to master those skills through spiraling skill development. The physical education curriculum (Figure 7) is the written, clearly articulated plan for how standards and education outcomes will be attained in a school district or school. A well-designed, standards-based physical education curriculum has many parts and provides the framework for the identified knowledge milestones aligned with the learning activities in the curriculum, and protocols for how learning will be measured.

The written physical education curriculum identifies the content to be taught at all grade levels from kindergarten through grade 12. It includes the national and/or state physical education standards, learning
objectives for students to meet, and units and lessons that teachers are to implement. Within the units and lessons, student learning objectives guide activities that are related directly to the identified objectives, defining instructional practices that maximize physical activity during lessons and keep students moderately to vigorously physically active for at least 50 percent of class time.

Assignments and projects given to students are included in a curriculum, along with a listing of books and materials related to learning activities. Tests, assessments and any other methods used to evaluate student learning and performance are included and related directly to the identified learning objectives of each lesson (Glossary of Education Reform). A scope and sequence document is another resource included in the curriculum. The scope is the clearly defined set of learning objectives from grades K-12, across the continuum. The sequence is the order in which these learning objectives are taught. Together, the scope and sequence clearly articulate the spiraling skill development expected of students, building on prior learning and incorporating increasingly complex skill development and use (Graham, Holt/Hale & Parker, 2003, pp. 112-113). The curriculum includes strategies for differentiation of instruction and modification for students of all ability levels. Every physical education class presents a multitude of student needs, and plans for differentiation of instruction are essential for ensuring effective teaching.

The physical education curriculum serves the purpose of standardizing the curriculum in a school district across schools and ensuring equitable education for all students. It also results in improved teacher quality and increased consistency in instruction.

**Appropriate Instruction**

Appropriate instruction (Figure 8) in physical education takes into account the diverse developmental levels that students in all grade levels will exhibit. A physical education classroom contains as many unique needs as there are students, and a physical educator is responsible for providing a customized education experience that meets the needs of each student. The expected standard for student-centered physical education instruction involves a wide variety of approaches to instruction that allow teachers to organize and deliver the content to students in the most effective manner possible.

Appropriate instruction includes practices such as maximizing the number of practice opportunities, working in small groups, limiting competition in class, and ensuring adequate equipment and space so that all students can engage in practice tasks for as much time as possible and become more self-directed (SHAPE America, 2014, pp. 81-86). The physical education teacher also should use instructional practices that engage students in moderate to vigorous physical activity for at least 50 percent of class time, promoting maximum physical activity during class (CDC, 2011, p. 30).

Appropriate instruction aligns the learning activities in which students engage with the identified student objectives and outcomes for learning. Instruction also addresses the content through the three domains
of learning (Figure 9), and includes ongoing assessment of the content through those domains. Teachers differentiate instruction and equipment to meet the needs of all students, including those with special needs or disabilities (CDC, 2011, pp. 30-33).

Careful creation of learning experiences ensures that K-12 students have the opportunity to demonstrate content and skill mastery. When students receive constructive feedback from the physical education teacher, they learn more about their performance and the degree of success they are attaining on an ongoing basis (SHAPE America, 2014, p. 79). The corresponding student assessment also is a way to document teacher effectiveness in delivering instruction and facilitating learning.

**Student Assessment**

Student assessment is the gathering of evidence about student achievement and making inferences about student progress based on that evidence. Physical education teachers collect and track assessment data to make decisions about instruction and to measure student learning continually throughout the learning sequence (SHAPE America, 2014, pp. 90-91).

Evidence of student learning can include portfolios of checklists, rating scales, tangible student products that demonstrate student learning, results of observed demonstration of physical skills and traditional constructed-response assessments (SHAPE America, 2014, p. 98). Student assessment (Figure 10) provides accountability for standards-based learning and is a key component of the education process in all subject areas (SHAPE America, 2014, p. 89).

Assessment in physical education includes conducting preassessments to learn where students are in the beginning of a learning sequence, formative assessments that are ongoing during instruction to check for understanding, and summative assessments at the close of a unit or instructional sequence to provide a comprehensive summary of each student’s progress (SHAPE America, 2014, p. 90).

Appropriate assessments provide concrete evidence of whether students have achieved grade-level outcomes, allow teachers to reflect on effectiveness of instruction and provide evidence of program success. A wide variety of assessments are used in physical education and can include traditional summative assessments and other forms such as checklists, rating scales and rubrics that link directly to the intent of the student outcome that physical education lessons address. Physical education teachers track student progress across grade levels using assessment data, demonstrating that students are meeting standards and outcomes (SHAPE America, 2014, pp. 91-98; CDC, 2011, p. 34).

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**Figure 9. The 3 Domains of Learning**

- **Cognitive**: mental skills related to the knowledge of movement.
- **Affective**: addresses growth in feelings or attitudes.
- **Psychomotor**: relates to the manual or physical skills related to movement.

**Figure 10. Student Assessment**

- Student assessment is aligned with national and/or state physical education standards and established grade-level outcomes, and is included in the written physical education curriculum along with administration protocols.
- Student assessment includes evidence-based practices that measure student achievement in all areas of instruction, including physical fitness.
- Grading is related directly to the student learning objectives identified in the written physical education curriculum.
- The physical education teacher follows school district and school protocols for reporting and communicating student progress to students and parents.
Strengthening Physical Education Programs

SHAPE America is committed to supporting strong physical education programs for all students in grades K-12, and rigorous physical education policies and practices across the United States. SHAPE America’s detailed definition of the essential components of physical education programs provides school leaders and other education stakeholders with a clear blueprint of the critical policies and practices that guide school districts and schools in addressing students’ education needs.

SHAPE America urges school administrators, principals, teachers and parents to conduct an assessment of their school’s physical education program to evaluate its strengths and weaknesses, and develop and implement a plan for improvement where needed. SHAPE America has developed a Physical Education Program Checklist that school leaders can use to identify the critical components that should be in place within a physical education program. The Essential Components of Physical Education can be used side by side with the Physical Education Program Checklist to analyze what is currently in place and plan for improvement where needed.

References

Centers for Disease Control and Prevention. [School health guidelines to promote healthy eating and physical activity]. MMWR 2011; 60(No. RR-#): http://www.cdc.gov/mmwr/pdf/rr/rr6005.pdf; citation on pg ii (2 of 80)


Suggested citation

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- Physical education is taught by a state-licensed or state-certified teacher who is endorsed to teach physical education.

#### Curriculum
- School districts and schools should have a written physical education curriculum for grades K–12 that is sequential and comprehensive.
- The physical education curriculum is based on national and/or state standards and grade-level outcomes for physical education.
- The physical education curriculum mirrors other school district and school curricula in its design and schedule for periodic review/update.

#### Appropriate Instruction
- The physical education teacher uses instructional practices and deliberate-practice tasks that support the goals and objectives defined in the school district’s/school’s physical education curriculum (e.g., differentiated instruction, active engagement, modified activities, self-assessment, self-monitoring).
- The physical education teacher evaluates student learning continually to document teacher effectiveness.
- The physical education teacher employs instructional practices that engage students in moderate to vigorous physical activity for at least 50 percent of class time.
- The physical education teacher ensures the inclusion of all students and makes the necessary adaptations for students with special needs or disabilities.

#### Student Assessment
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- The physical education teacher follows school and school district protocols for reporting and communicating student progress to students and parents.
Resources to Support Physical Education Programs

Policy and Environment

- Shape of the Nation Report
- Guide for Physical Education Policy
- Opportunity to Learn Guidelines for Elementary, Middle & High School Physical Education: A Side-by-Side Comparison
- Appropriate Maximum Class Length for Elementary Physical Education
- Opposing Substitution and Waiver/Waiver/Exemptions for Required Physical Education
- What Constitutes a Highly Qualified Physical Education Teacher?
- Highly Qualified Adapted Physical Education Teachers
- Eligibility Criteria for Adapted Physical Education Services
- Physical Activity Used as Punishment or Behavior Management

Curriculum

- National Standards for K-12 Physical Education
- Grade-Level Outcomes for K-12 Physical Education
- National Standards & Grade-Level Outcomes for K-12 Physical Education
- State Physical Education Standards Database
- Instructional Framework for Fitness Education In Physical Education
- Physical Education Curriculum Analysis Tool (PECAT)

Appropriate Instruction

- Appropriate Instructional Practice Guidelines, K-12: A Side-by-Side Comparison
- How Can I Demonstrate to My Building Principal That I Am an Effective Physical Education Teacher?
- Teaching Large Class Sizes in Physical Education: Guidelines and Strategies
- Looking at Physical Education from a Developmental Perspective: A Guide to Teaching
- Initial Guidelines for Online Physical Education
- Physical Education Teacher Evaluation Tool
• Appropriate Use of Instructional Technology in Physical Education
• Moderate to Vigorous Physical Activity in Physical Education to Improve Health and Academic Outcomes
• System for Observing Fitness and Instruction Time (SOFIT)
• Physical Activity Used as Punishment or Behavior Management

Student Assessment

• Body Mass Index Measurement in Schools: Executive Summary
• PE Metrics
• Appropriate Instructional Practice Guidelines, K-12: A Side-by-Side Comparison
• Appropriate Uses of Fitness Measurement
• System for Observing Fitness and Instruction Time (SOFIT)
• Presidential Youth Fitness Program