



PHYSICAL EDUCATION CURRICULUM ANALYSIS TOOL

✓ PECCAT

2019



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

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Introduction

Physical education is the foundation of a [Comprehensive School Physical Activity Program](#).¹ It is an academic subject characterized by a planned, sequential kindergarten through grade 12 (K–12) curriculum (course of study) that is based on the national standards for physical education.² Physical education provides content and instruction designed to develop motor skills, knowledge, and behaviors for physical activity and physical fitness.² Supporting schools to establish physical education daily can give students the ability and confidence to be physically active for a lifetime.²

Physical education benefits students by:³

- Increasing their level of physical activity.
- Improving their grades and standardized test scores.
- Helping them stay on-task in the classroom.

Increased time spent on physical education does not negatively affect students' academic achievement.⁴ There is strong evidence that physical activity is associated with multiple beneficial health outcomes for students,⁵ including:

- Maintenance of a healthy weight.
- Cardiorespiratory fitness.
- Muscular fitness.
- Bone health.

Purpose of This Document

The **Physical Education Curriculum Analysis Tool (PECAT)** is designed to help school districts and schools conduct a clear, complete, and consistent analysis of physical education curricula for K–12 students. This analysis focuses on how well a curriculum aligns with national standards for physical education. PECAT results can help school districts and schools improve, develop, or select appropriate and effective curricula for delivering physical education. This, in turn, will improve the ability of schools to positively influence knowledge, motor skills, and physical activity behaviors among school-aged youth.



Long-term studies have demonstrated that increases in physical activity, resulting from greater time spent in physical education, were related to improved academic performance. Even single sessions of physical activity have been associated with better scores on academic tests, improved concentration, and more efficient transfers of information from short- to long-term memory. Children participating in physical activity are better able to stay focused and remain on task in the classroom, thus enhancing the learning experience.

Source: [Active Education: Growing Evidence on Physical Activity and Academic Performance](#)



A curriculum is a written educational plan incorporating a structured, developmentally appropriate series of intended learning outcomes and associated learning experiences for students.² It is generally organized as a detailed set of written information, graphics, directions, instructional strategies, learning experiences, assessment strategies, and other materials.

Intended Users

The PECAT can be used at the school district or school level to analyze curricula for all grades (K–12). It is designed to be used by a team that includes representatives from the following groups:

- Curriculum committees.
- State education agency staff.
- Other curricula developers.
- Institutions of higher education.
- School-level physical education departments.
- Physical educators in school districts and schools.

Background

The PECAT is based on the *National Standards and Grade-Level Outcomes for K–12 Physical Education*,⁶ which provides school districts and schools guidance on how to achieve outcomes expected in physical education programs. The need for the PECAT is explained in *The Essential Components of Physical Education*.² This document identifies four essential components to help schools create a strong foundation for physical education programs:

- Policy and environment.
- Curriculum.
- Appropriate instruction.
- Student assessment.

The curriculum component underscores the need for school districts and schools to establish a written physical education curriculum that identifies the content to be taught, guides appropriate instruction that supports the curriculum, and identifies student assessments that will provide evidence of student learning. Creating a well-designed, standards-based physical education curriculum will help ensure equitable physical education for all students.

Incorporating the PECAT into the curriculum review cycle at the school district or school level can be useful. It can be used to assess how closely the written curricula align with national standards for physical education programs. Decisions can then be made about curricula. For example, the PECAT can be used to identify where revisions might be needed in a locally developed curriculum. For school districts or schools without a curriculum, the PECAT provides a vision of what should be included in a comprehensive, written physical education curriculum. In addition, the PECAT can be used to compare strengths and weaknesses of various published physical education curricula under consideration.

Organization of the PECAT

The PECAT is organized into three main sections, which are described below.

Section 1: Preliminary Review

The Preliminary Review section includes a set of worksheets to help users assess important aspects of the physical education curriculum being reviewed before analyzing how well the curriculum covers grade-level outcomes, physical education content, and student assessments for each of the five national standards for physical education.

The Preliminary Review includes the following worksheets:

- Physical Education Curriculum Description
- Accuracy Analysis
- Acceptability Analysis
- Feasibility Analysis
- Affordability Analysis

Section 2: Standards Analysis

The Standards Analysis section is designed to score how well the curriculum addresses each of the five national standards for physical education for kindergarten–grade 5, grades 6–8, and grades 9–12. It includes subsections with lists of what students are expected to achieve for the five national standards. These expectations build the framework of the standards analysis process because they identify what students are expected to know and be able to do by the end of each grade.

A scorecard is provided to summarize how well the curriculum covers grade-level outcomes, physical education content, and student assessments for each of the five standards.

The Standards Analysis reflects the importance of a sequential, written curriculum that identifies, defines, and describes the skills and activities that should be covered each year. Of particular importance is the sequence of instruction throughout students' educational experience (K–12). All questions are based on the premise that students need to be taught increasingly advanced types of physical activity skills and concepts as they progress through their educational experience. Therefore, each question for each standard is built upon the previous grade level.

Section 3: Curriculum Improvement Plan

The Curriculum Improvement Plan section helps users strategize how to improve upon the gaps and weaknesses they identify in their curriculum, while also maintaining the curriculum's strengths.

Appendices

This document also provides two appendices with additional information to help school districts and schools use the PECAT.

- **Appendix A: Curriculum Development Process**, which describes how a school district or school can use the PECAT to develop a physical education curriculum.
- **Appendix B: Glossary**, which defines many of the terms used in this document.



Steps for Using the Pecat

This section explains how to complete the six steps of the PECAT.

Step 1: Identify who will work on the PECAT.

Select a PECAT Coordinator who will lead the committee. Past experiences that will be useful for a PECAT Coordinator include the following:

- Several years of experience as a physical education teacher.
- Familiarity with the current physical education curriculum, if there is one, at the school district or school.
- Team player with ability to network and recruit other individuals for the committee.
- Leadership skills to move the team forward to completion.
- Vision of what physical education should be at the school district or school.

Form a PECAT Committee. Determine whether a school wellness committee or health council exists at the school district or school level. Members of the school wellness committee or health council are ideal partners for the curriculum review process. Consider whether one or two of those members could serve on the PECAT Committee. The committee might also include:

School representatives

- Physical education teachers from elementary, middle, and high schools.
- Health education teachers.
- Parents.
- Students.

School district representatives

- School district physical education coordinator.
- Curriculum specialists.
- School administrators.
- School health council members.

Other

- College or university professors.
- Public health practitioners.



A team approach will achieve the best outcomes.

Benefits of this approach include stronger policy changes made through the forged connections, elevated importance of the work, and more expedited changes. However, forming a team may not be possible in every instance, and some school districts or schools may have only one or two people complete this work.

Step 2: Determine the purpose for using the PECAT.

Users will need to determine their purpose for using the PECAT. Possible options are to:

- Assess the current physical education curriculum.
- Assess a new physical education curriculum, such as one under consideration for purchase.
- Develop a physical education curriculum. If this is the purpose of using the PECAT, go to Appendix A: Curriculum Development Process ([page 72](#)) and follow the instructions for how to use the PECAT.

Step 3: Review the current physical education curriculum and other related resources.

Once a PECAT Coordinator and Committee are selected, each person should receive and review the following items:

- Current physical education curriculum (if there is one).
- Society of Health and Physical Educators (SHAPE America) standards, which describe national grade-level standards and outcomes for physical education.⁶
- Any state or local physical education standards that should be referenced.
- The PECAT.

Step 4: Complete the Preliminary Review.

Decide who will be responsible for completing the Preliminary Review. The Preliminary Review section on [page 9](#) has five worksheets that can be used to assess the current or new curriculum under consideration. Use the table on [page 7](#) to indicate who will complete each worksheet. Complete the Physical Education Curriculum Description, Accuracy Analysis, Acceptability Analysis, and Feasibility Analysis Worksheets first, and then complete the Affordability Analysis Worksheet.



Overview of the PECAT Worksheets

Worksheet	What is the purpose?	Who should complete it? Members on the PECAT Committee...	Who will be assigned to complete the worksheets?
Physical Education Curriculum Description	Provides descriptive information on the curriculum under review.	...who are knowledgeable about the current curriculum or the proposed curriculum.	
Accuracy Analysis	Assesses the accuracy of the information in the written physical education curriculum.	...who can assess the accuracy of the health and scientific information in the current curriculum.	
Acceptability Analysis	Analyzes how well the curriculum aligns with social norms and culture among students, families, and community members. Also addresses whether the curriculum includes developmentally inappropriate practices.	...who are knowledgeable about the expectations of the school district or school for physical education materials; state and local school district policies, requirements, frameworks, and standards that guide physical education; and the physical education needs of the students.	
Feasibility Analysis	Helps determine if the physical education curriculum content, materials, and instructional strategies can be successfully implemented and used by physical education teachers within the available instructional time and with the existing physical education facilities and equipment.	...who know whether the physical education curriculum content, materials, and instructional strategies can be successfully implemented and used in schools.	
Affordability Analysis	Assesses how affordable the curriculum appears to be, for example, to determine (1) the costs of sustaining curricular materials annually; (2) what funds are available for curriculum purchase and implementation; or (3) what changes are needed in staffing, facilities, or schedules so that the lessons in the curriculum can be implemented as written.	...who are knowledgeable about the costs for curriculum development, purchasing, implementation, and revisions; the costs involved in changing school operating procedures; and the resources available to cover costs.	

Determine whether to continue to the Standards Analysis. After completing the Preliminary Review worksheets, users will determine if they should continue to the Standards Analysis (Step 5) of the PECAT.

Regardless of their worksheet scores, users who are reviewing a current physical education curriculum should continue to the Standards Analysis (Step 5). However, users who are reviewing a commercially developed curricula that they are considering for purchase should not proceed with the Standards Analysis if the curriculum receives low scores on any of the worksheets. A commercially developed curriculum that is not rated as accurate, acceptable, feasible, or affordable is not an appropriate choice to use.

Step 5: Complete the Standards Analysis.

Decide who will be responsible for completing the Standards Analysis for each grade level. The Standards Analysis on [page 29](#) is designed to determine how well the curriculum addresses each of the five national standards for physical education.⁶ Specifically, for each standard and by each grade level, the following aspects of the curriculum will be assessed:

- **Grade-Level Outcomes:** what students will learn and achieve in a certain grade level.
- **Physical Education Content:** units, lessons, and activities in the curriculum that are developmentally appropriate, that align with the national physical education standards, and that help students achieve grade-level outcomes.
- **Student Assessments:** tools to gather, describe, or quantify information about student performance and achievement of the national physical education standards and grade-level outcomes.

Use the PECAT Standards Scorecard. At the end of the Standards Analysis for each group of grades (K–5, 6–8, and 9–12), there is a PECAT Standards Scorecard. Findings from the analysis are used to complete the scorecard. Users will then review the scores for each standard for each grade level to determine where improvements are most needed—for example, in the content only, in the student assessments only, for specific standards, or for specific grade levels.

Step 6: Complete the Curriculum Improvement Plan.

For school districts or schools that are assessing an existing curriculum, the Curriculum Improvement Plan section on [page 67](#) can provide a foundation to move forward from what was learned from the Preliminary Review and Standards Analysis. Users will develop a Curriculum Improvement Plan by considering their PECAT scores and identifying strengths and weaknesses based on these scores. This process will guide the recommendations and actions in the plan, which should be implemented and reassessed periodically to allow for continuous improvement.

SECTION 1

Preliminary Review

Physical Education Curriculum Description Worksheet

Purpose

This worksheet is used to provide an overview of the curriculum currently in use or being considered.

Directions

Answer each question and provide notes to support the answers as necessary.

Name(s) of person(s) completing the worksheet:

Date:

1. What is the name of the physical education curriculum being assessed? It can be a new curriculum or an existing curriculum.

2. What year was the curriculum developed or published?

If applicable, what year was it revised?

3. What is the contact information for the developer of the curriculum?

Publisher name

Contact Person

Address

Phone

4. What grade levels does the curriculum address? (Check all that apply.)

Prekindergarten (Note: The national physical education standards are only provided for K–12.)

Kindergarten

Grade 1

Grade 2

Grade 3

Grade 4

Grade 5

Grade 6

Grade 7

Grade 8

Grade 9

Grade 10

Grade 11

Grade 12

5. Complete the table by grade to indicate the number of lessons and corresponding assessments in the curriculum.

Grade	How many units and corresponding lessons per year are in the curriculum?	What student assessments are included in the curriculum?
Kindergarten		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
1		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
2		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
3		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:

Physical Education Curriculum Description Worksheet

Grade	How many units and corresponding lessons per year are in the curriculum?	What student assessments are included in the curriculum?
4		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
5		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
6		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
7		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
8		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:

Physical Education Curriculum Description Worksheet

Grade	How many units and corresponding lessons per year are in the curriculum?	What student assessments are included in the curriculum?
9		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
10		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
11		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:
12		<input type="checkbox"/> None <input type="checkbox"/> Checklists <input type="checkbox"/> Rating scales <input type="checkbox"/> Rubrics <input type="checkbox"/> Student products that demonstrate learning <input type="checkbox"/> Observed demonstrations of skills <input type="checkbox"/> Knowledge-based examinations <input type="checkbox"/> Other:

6. When are assessments given?

- At the end of a lesson or unit
- Throughout the lesson or unit
- Both
- Not applicable

7. Is this curriculum required by the school board or school superintendent's office?

- Yes
- No
- Not applicable

8. Has the curriculum ever been reviewed by another committee?

- Yes
- No
- Don't know

If yes, which committee?

9. Has the curriculum ever been field tested?

- Yes
- No
- Don't know

If yes, what were the findings?

10. What guidance does the curriculum provide to notify parents and families about the curriculum or content of instruction?

- None
- General guidance only
- Specific examples teachers can use, such as sample letters and sample text
- Other (describe):

11. What materials, tools, technology, and resources are included in the curriculum?

- Lesson plans
- Equipment (such as balls, bats, or nets)
- Teaching aids (such as posters or slides)
- Fitness assessment tools (such as activity trackers or heart rate monitors)
- Other (please list):

12. Does the curriculum allow for flexibility and creativity?

- Yes
- No
- Don't know

Please explain the answer:

13. Has the school district or school recently conducted assessments for student fitness levels?

- Yes
- No
- Don't know

If yes, how might the results of the fitness assessment(s) affect the physical education curriculum?

For the physical education curriculum to be successful, the school district or school must have a well-articulated physical education program. This includes having a philosophy, vision, and mission that align with each other. Refer to the Glossary ([page 77](#)) for the definitions of philosophy, vision, and mission statement.

14. Does the school district or school have the following for its physical education program:

A philosophy? If yes, what is it, and does it align with the curriculum under review?

A vision? If yes, what is it, and does it align with the curriculum under review?

A mission? If yes, what is it, and does it align with the curriculum under review?

Accuracy Analysis Worksheet

Purpose

This worksheet is used to assess the accuracy of the health, medical, and scientific information in the physical education curriculum.

Directions

Consider whether the information in the physical education curriculum is scientifically sound, accurate, and current. Questions to consider when analyzing the accuracy of a physical education curriculum include:

- Are physical activities and skill activities in the written curriculum represented accurately in pictures, graphs, or written text? For example, are flexibility exercises represented with accurate technique, form, and safety considerations?
- Are data, information, and sources of information accurate and current?
- Are the sources (such as research materials) of the physical education curriculum content referenced? If so, are they reputable sources?
- Does the curriculum use accurate and appropriate terminology?

Record all information that is inaccurate or out-of-date on the worksheet.

Accuracy Analysis Worksheet

Name of Curriculum:

Name(s) of person(s) completing the worksheet:

Date:

Page number(s) in the curriculum	Describe the section that is inaccurate	Describe what needs to be done to correct it	How difficult will the correction be to make?	Is the correction costly in terms of time or money?
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No

Accuracy Analysis Score: Use the information from this worksheet to score the accuracy of the physical education curriculum and the extent to which the correction of any errors can be reasonably completed. Use the key below to choose your score.

- 4 = No corrections are needed.
- 3 = A few minor errors or problems are evident, but they are easy to correct.
- 2 = Many minor errors or problems are evident, but they are easy to correct.
- 1 = Major errors and problems are evident, and one error would be difficult or costly to correct.
- 0 = Major errors and problems are evident, and more than one error would be difficult or costly to correct.

Score

Acceptability Analysis Worksheet

Purpose

This worksheet is used to analyze how well the curriculum aligns with social norms and culture among school staff, students, families, and community members. It also addresses whether the practices in the curriculum are developmentally appropriate.

Directions

Consider school norms, student needs, and perspectives of families and the community. Questions to consider when analyzing the acceptability of a physical education curriculum include:

- Does the curriculum address the physical education and physical activity needs of all students in the school, including those with disabilities and varying skill levels?
- Does the curriculum promote a biased or stereotypical perception of individuals or groups based on personal characteristics, such as race, ethnicity, gender, religion, culture, or sexual orientation?
- Are there any health disparities in the community? Does the curriculum seek to reduce these disparities?
- Does the curriculum reflect the perspectives, diversity, and needs of students at the school?
- Is the curriculum relevant to students' lives?
- Are the lessons and activities in the curriculum developmentally appropriate? Examples of appropriate and inappropriate practices in physical education can be found elsewhere.⁷
- Does the curriculum connect students to opportunities in their community?
- Does the curriculum address any state or local statutes, policies, requirements, and standards? Alternatively, does any curriculum information or material violate any physical education requirements or mandates?
- Is there anything in the sponsorship, information, or materials associated with the curriculum that reflects an inappropriate marketing message or improper attempt to influence teachers and students? For example, the marketing of a particular brand or product, the advocacy of an interest that might conflict with the school's mission, or the advocacy of an interest that conflicts with physical education outcomes and objectives?

Record all information that is not acceptable on the worksheet.

Acceptability Analysis Worksheet

Name of Curriculum:

Name(s) of person(s) completing the worksheet:

Date:

Page number(s) in the curriculum	Describe the section that is unacceptable	Describe what needs to be done to correct it	How difficult will the correction be to make?	Is the correction costly in terms of time or money?
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No
			<input type="checkbox"/> Very difficult <input type="checkbox"/> Somewhat difficult <input type="checkbox"/> Not at all difficult	<input type="checkbox"/> Yes, time and money <input type="checkbox"/> Yes, time <input type="checkbox"/> Yes, money <input type="checkbox"/> No

Acceptability Analysis Score: Use the information from this worksheet to score the acceptability of the physical education curriculum and the extent to which the correction of any errors can be reasonably completed. Use the key below to choose your score.

- 4 = No corrections are needed.
- 3 = A few minor errors or problems are evident, but they are easy to correct.
- 2 = Many minor errors or problems are evident, but they are easy to correct.
- 1 = Major errors and problems are evident, and one error would be difficult or costly to correct.
- 0 = Major errors and problems are evident, and more than one error would be difficult or costly to correct.

Score

Feasibility Analysis Worksheet

Purpose

This worksheet can help determine if the physical education curriculum can be successfully implemented and used by physical education teachers with the available personnel, instructional time, facilities, and equipment.

Directions

Answer each question and provide notes to support the answers.

Name of Curriculum:

Name(s) of person(s) completing the worksheet:

Date:

Personnel

1. How many certified full-time equivalent physical education teachers are available for each grade level group?

Kindergarten–Grade 5

Grades 6–8

Grades 9–12

2. Can the curriculum be reasonably implemented within the capacity (for example, the level of training and certification in teaching physical education) of existing physical education teachers?

- Yes
- No, but capacity can be adjusted
- No, and capacity cannot be adjusted

Notes:

Instructional Time

3. How much instructional time (number of days of the week and minutes per class) is currently available at the school district or school? For the school district, it may be necessary to provide a range of times.

Notes:

4. Can the curriculum be implemented within the available instructional time?

Yes

No

Please explain the answer:

Facilities

5. What physical education facilities are available for use by physical education teachers?

Notes:

6. Can the curriculum be implemented with the existing facilities available for use by physical education teachers?

Yes

No

Please explain the answer:

Equipment

7. What physical education equipment exists that can be used for physical education instruction?

Notes:

8. Can the curriculum be implemented with the existing equipment available for physical education instruction?

Yes

No

Please explain the answer:

Feasibility Analysis Score: Use the information from this worksheet to score the feasibility of implementing the physical education curriculum successfully. Use the key below to choose your score.

4 = feasible

3 = probably feasible

2 = possibly feasible

1 = probably not feasible

0 = not feasible

Score

Affordability Analysis Worksheet

Purpose

This worksheet is used to assess how affordable it is to improve an existing physical education curriculum or buy a new one. It also helps determine the costs of sustaining curricular materials annually; identifying additional financial costs (such as staffing, facilities, or professional development); identifying available funds for curriculum purchase and implementation; and assessing how much changes to the curriculum will cost.

Directions

Answer the questions on cost, changes needed, and funds available. Only school districts or schools considering a new curriculum should fill out Part 1a.

Affordability Analysis Worksheet

Name of Curriculum:

Name(s) of person(s) completing the worksheet:

Date:

1. What is the name of the curriculum to be assessed?

New curriculum: (start at 1a)

Existing curriculum: (start at 1b)

1a. What is the initial cost of the curriculum materials?

Curriculum Materials	Unit Cost	Number of Units Needed	Total Cost (unit cost x number of units needed)
Core curriculum <i>(Note: Breakdown of separate grade-specific or content-specific materials may be necessary.)</i>			
Necessary instructional materials (equipment) not included as part of core curriculum			
Required consumable materials (take-home items, parent materials)			
Other			
Total minimum curriculum purchase costs			
Optional supplementary materials (suggested but not required)			
Total maximum curriculum purchase costs			

1b. What is the cost of sustaining the curriculum materials per year? This question applies to both new curriculum and existing curriculum.

Curriculum Materials	Unit Cost per year	Number of Units Needed per year	Total Cost Per Year (unit cost x number of units needed)
Core curriculum (Note: Breakdown of separate grade-specific or content-specific materials may be necessary.)			
Necessary instructional materials (equipment) not included as part of core curriculum			
Required consumable materials (take-home items, parent materials)			
Other			
Total minimum sustaining curriculum purchase costs			
Optional supplementary materials (suggested but not required)			
Total maximum sustaining curriculum purchase costs			

1c. What are the additional financial costs related to implementing the curriculum in the next year? This question applies to both new curriculum and existing curriculum.

Source	Cost	Initial or Yearly
Additional staff		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost
Professional development or training fees		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost
Substitutes to cover classes		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost
Other		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost
Other		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost
Other		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost

Affordability Analysis Worksheet

- 2. Are there changes that need to be made from the Accuracy, Acceptability, and Feasibility Analysis Worksheets? Or other changes that need to be made? If so, what are the costs in terms of money and time?**

Changes Needed	Cost	Initial or Yearly	Notes (Are there nonmonetary costs?)
Accuracy Analysis		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Acceptability Analysis		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Feasibility Analysis: Personnel		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Feasibility Analysis: Instructional Time		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Feasibility Analysis: Facilities		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Feasibility Analysis: Equipment		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	
Other changes:		<input type="checkbox"/> Initial cost <input type="checkbox"/> Yearly cost	

- 3. What funds are available for curriculum purchase and implementation? Include any community partners that may provide services in-kind or at a reduced rate.**

Source	Amount	Date of Fund Availability (immediately or annually)	Notes

- 4. Use the answers from questions 1a–1c, 2, and 3 to complete this summary table.**

Source	Initial Cost	Annual Cost to Sustain Curriculum
Cost of materials (1a–1b)		
Additional implementation costs (1c)		
Cost to make changes (2)		
Total		
Funds available for purchase and implementation (3)		

Affordability Analysis Worksheet

Affordability Analysis Score: Use the information from this worksheet to score the affordability of the physical education curriculum. Use the key below to choose your score.

- 4 = definitely affordable
- 3 = probably affordable
- 2 = possibly affordable
- 1 = probably not affordable
- 0 = not affordable

Score

SECTION 2

Standards Analysis

Overview of Standards Analysis

The Standards Analysis section is designed to score how well the curriculum addresses each of the five national standards for physical education.⁶

National Standards for K–12 Physical Education

Standard 1: The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.

Standard 2: The physically literate individual applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.

Standard 3: The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.

Standard 4: The physically literate individual exhibits responsible personal and social behavior that respects self and others.

Standard 5: The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

Section 2 has three subsections: Kindergarten–Grade 5 ([page 31](#)), Grades 6–8 ([page 47](#)), and Grades 9–12 ([page 58](#)). Each subsection provides a set of tables to assess the physical education curriculum by standard and grade level. Users will assess whether each grade-specific standard addresses grade-level outcomes, physical education content, and student assessments. The scores for each grade level will then be transferred to the standards scorecard at the end of each subsection.

Standards Analysis: Grades 9–12

Grades 9–12 Outcomes

By the end of high school, the learner will:

- Be college- or career-ready, as demonstrated by the ability to plan and implement different types of personal fitness programs.
- Demonstrate competency in two or more lifetime activities.
- Describe key concepts associated with successful participation in physical activity.
- Model responsible behavior while engaged in physical activity.
- Engage in physical activities that meet the need for self-expression, challenge, social interaction, and enjoyment.

Outcomes for high school students are organized into two levels:

- **Level 1** indicates the minimum knowledge and skills that students must attain to be college- or career-ready.
- **Level 2** allows students to build on Level 1 competencies by augmenting knowledge and skills considered desirable for college or career readiness.

Directions

Complete the tables on [pages 60–64](#). As you complete the tables, cross-reference the standards in the *Grade-Level Outcomes for K-12 Physical Education* by SHAPE America.⁸ For each grade and standard, check the box if the curriculum includes the following:

- **Grade-Level Outcomes:** what students will learn and achieve in a certain grade level.
- **Physical Education Content:** units, lessons, and activities in the curriculum that are developmentally appropriate, that align with the national physical education standards, and that help students achieve grade-level outcomes.
- **Student Assessments:** tools to gather, describe, or quantify information about student performance and achievement within lessons of the national physical education standards and grade-level outcomes.

These three measures are listed in the tables as outcomes, content, and assessments. Rows with N/A (not applicable) indicate that an outcome is not expected for those grade levels. Definitions of terms used in the table can be found in the Glossary on [page 77](#). Standards are numbered in the tables by outcome. The order of the numbers does not designate priority.

Use the following key to understand the information in the tables:

S1 = Standard 1

H = High school level

S1.H4 = Standard 1, High school outcome 4

Once the tables are complete, transfer the total number of boxes checked to the PECAT Standards Scorecard: Grades 9 to 12 on [page 66](#). The scorecard will provide a summary of the results across all the standards for each grade level.

Note: If there are additional standards or outcomes that need to be added, there is a blank Standard Analysis table for Grades 9–12 on [page 65](#) before the PECAT Standards Scorecard: Grades 9–12. If additional outcomes are added, the denominators for the PECAT Standards Scorecard will need to be adjusted. If there are additional standards that need to be added, the school district or school will need to consider creating their own PECAT Standards Scorecard.

(Grades 9–12) Standard 1—Demonstrates competency in a variety of motor skills and movement patterns.

STANDARD 1	LEVEL 1			LEVEL 2		
	Outcomes	Content	Assessments	Outcomes	Content	Assessments
S1.H1 Lifetime activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S1.H2 Dance and rhythms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S1.H3 Fitness activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of boxes checked in each column						
Total possible number of boxes checked in each column	3	3	3	3	3	3

(Grades 9–12) Standard 2—Applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.

STANDARD 2	LEVEL 1			LEVEL 2		
	Outcomes	Content	Assessments	Outcomes	Content	Assessments
S2.H1 Movement concepts, principles, and knowledge: terminology and roles in society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S2.H2 Movement concepts, principles, and knowledge: analyze performance and speed and accuracy in throwing and striking skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S2.H3 Movement concepts, principles, and knowledge: practice plan and motor skill stages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S2.H4 Movement concepts, principles, and knowledge: dance forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of boxes checked in each column						
Total possible number of boxes checked in each column	4	4	4	4	4	4

(Grades 9–12) Standard 3—Demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.

STANDARD 3	LEVEL 1			LEVEL 2		
	Outcomes	Content	Assessments	Outcomes	Content	Assessments
S3.H1 Physical activity knowledge: benefits and relationship among physical activity, nutrition, and body composition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H2 Physical activity knowledge: commercial products and technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H3 Physical activity knowledge: heat and cold and exertion and pacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H4 Physical activity knowledge: evaluates activities in the local environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H5 Physical activity knowledge: risks, safety, and life choices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H6 Engages in physical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H7 Fitness knowledge: strength and conditioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H8 Fitness knowledge: physiological responses and energy systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H9 Fitness knowledge: types of strengthening and stretching and muscle structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H10 Fitness knowledge: heart rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H11 Assessment and program planning: behavior-modification plan and fitness portfolio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H12 Assessment and program planning: fitness program and components of skill-related fitness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H13 Nutrition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S3.H14 Stress management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of boxes checked in each column						
Total possible number of boxes checked in each column	14	14	14	14	14	14

(Grades 9–12) Standard 4—Exhibits responsible personal and social behavior that respects self and others.

STANDARD 4	LEVEL 1			LEVEL 2		
	Outcomes	Content	Assessments	Outcomes	Content	Assessments
S4.H1 Personal responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S4.H2 Rules and etiquette	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S4.H3 Working with others: communications skills and leadership roles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S4.H4 Working with others: problem solving and accepts others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S4.H5 Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of boxes checked in each column						
Total possible number of boxes checked in each column	5	5	5	5	5	5

(Grades 9–12) Standard 5—Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

STANDARD 5	LEVEL 1			LEVEL 2		
	Outcomes	Content	Assessments	Outcomes	Content	Assessments
S5.H1 Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S5.H2 Challenge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S5.H3 Self-expression and enjoyment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S5.H4 Social interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of boxes checked in each column						
Total possible number of boxes checked in each column	4	4	4	4	4	4

Standards Scorecard: Grades 9–12

Directions

To complete the scorecard, transfer the numbers from the row titled “Total number of boxes checked in each column” from each standard and grade level to the boxes below. The numbers in the denominator are from the row titled “Total possible number of boxes checked in each column” from each standard and grade level in the above tables. Identify areas that need improvement by circling the boxes with lower proportions. The assessment of these areas happens in Section 3, Curriculum Improvement Plan.

NATIONAL STANDARD	LEVEL 1			LEVEL 2			TOTAL
	Outcomes	Content	Assessments	Outcomes	Content	Assessments	
1	__/3	__/3	__/3	__/3	__/3	__/3	__/18
2	__/4	__/4	__/4	__/4	__/4	__/4	__/24
3	__/14	__/14	__/14	__/14	__/14	__/14	__/84
4	__/5	__/5	__/5	__/5	__/5	__/5	__/30
5	__/4	__/4	__/4	__/4	__/4	__/4	__/24
Total	__/30	__/30	__/30	__/30	__/30	__/30	

SECTION 3

Curriculum Improvement Plan

Curriculum Improvement Plan

This section describes how a school district or school can use the information from the PECAT to improve a written physical education curriculum. There are four steps to the Curriculum Improvement Plan.

Note: If users are reviewing a commercially developed curriculum that is being considered for purchase, the Curriculum Improvement Plan is not applicable.

Step 1—Consider the PECAT Scores.

Review and summarize the information from the worksheets from Section 1 (Physical Education Curriculum Description, Accuracy Analysis, Acceptability Analysis, Feasibility Analysis, and Affordability Analysis) and Section 2 (Standards Analysis) and the PECAT scorecards to identify where improvements are needed. Use this information for Step 2.

Step 2—Complete the Curriculum Improvement Plan worksheet.

Ideally, all areas that need improvement should be addressed within the same time frame. However, making comprehensive revisions to a curriculum within a limited time frame is not always feasible. The PECAT Committee might need to set priorities and consider several variables, including resources, to decide which improvements to address first. Use the collective judgment and knowledge of the committee members to prioritize the areas that need improvement and then complete the Curriculum Improvement Plan worksheet ([page 70](#)).

- **Identified Weaknesses:** In the first column of the worksheet, list the weaknesses identified from Sections 1 and 2 in priority order.
- **Recommendations:** In the second column, explain the actions recommended by the committee to address the weaknesses identified.

Sample recommendation: Adjust the curriculum content and student assessments across the K–5 grade levels to fully address standard 2, outcome 3: specific lessons on movement concepts, principals, and knowledge related to speed, direction, and force.

- **Necessary actions:** In the third column, identify and describe the actions that will be needed to complete each recommendation.

Sample actions to adjust the curriculum content and student assessments across the K–5 grade levels for standard 2, outcome 3:

- Identify which learning concepts are missing.
 - Select resources that will be needed to develop or enhance the missing concepts.
 - Assign resources that should be reviewed to appropriate PECAT Committee members.
 - Discuss the resources as an entire committee to determine which resources meet local needs.
 - Decide on the sequence for addressing each missing learning concept of standard 2 for grades K–5.
 - Assign subcommittees to develop curricular content and student assessments.
 - Get administrative approval for the new content and student assessments.
 - Integrate the new curricular content and student assessments into the existing written curriculum.
- **Persons responsible and completion dates:** In the final two columns, identify the person responsible for leading each of the identified actions, as well as any other PECAT Committee members who will help with each action. Include a completion date for each action.

Step 3—Implement the Curriculum Improvement Plan.

Implementing the Curriculum Improvement Plan can take time. Some steps can be handled quickly and easily by one team member. Other steps, such as gathering information or securing funding support, may require a group effort. A full discussion of project management is beyond the scope of this section, but general principles include the following:

- **Work Groups:** Form implementation workgroups so that no single person is overwhelmed with responsibility.
- **Short- and long-term goals:** Most positive changes take time to happen, but delayed gratification can be frustrating for many volunteers. Having a mix of short-term goals (for example, rewrite content for standard 1, middle school) and long-term goals (for example, develop a comprehensive series of K–12 student assessments for all standards) will allow for early accomplishments, which can keep the team motivated while they tackle the long-term goals.
- **Timeline:** Create a timeline of activities and set target completion dates.
- **Assistance:** Ask for help when you need it. Look for help from state and local education agencies and local universities.
- **Monitor and report progress:** Ongoing monitoring of activities is essential for smooth and successful implementation and to recognize both problems and special achievements. Establish a mechanism for reporting progress so there is some level of accountability and evaluation can be ongoing.
- **Consistent Meetings:** Set a meeting schedule that is consistent and reasonable to keep the group moving forward without burdening schedules.
- **Recognition:** Recognize those who are involved in planning and implementation. Write letters of appreciation and publicize their good work. Share progress with local school board, curriculum advisory committees, and other stakeholders.
- **Resources:** Consider all resources that will be needed (for example, stipends or release time for teachers) and advocate for or solicit these resources. Funding sources and other support may be found within the school or from community partners.

Step 4—Reassess and strive for continuous improvement.

A curriculum should not be stagnant. National and state standards, guidelines, and best practices are regularly updated, and these revisions should be reflected in the curriculum. Consider reassessing the written curriculum every 3 to 5 years, or align with the curriculum review cycle at the school district or school. This approach can also help ensure regular visibility for the physical education program. Report annually to the school administration and school board on progress for the year and plans for the upcoming year. Consider taking time to recognize the progress and accomplishments of the PECAT Committee for their work.

Curriculum Improvement Plan Worksheet

Name(s) of person(s) completing the worksheet:

Date:

Identified weaknesses based on PECAT results	PECAT Committee recommendations	Necessary actions	Persons responsible	Completion dates



Appendices

Appendix A: Curriculum Development Process

This section describes how a school district or school can use the PECAT to develop a physical education curriculum. The order of the five steps described below can vary.

Step 1—Develop a conceptual framework for the physical education program.

All school districts and schools should have a conceptual framework for their physical education program. This framework helps guide the development and selection of a physical education curriculum and includes the physical education philosophy, mission, vision, goals, and objectives.

If the school district or school does not have a complete conceptual framework, use the Curriculum Development Process Worksheet on [page 73](#) to begin developing this framework or filling in any gaps. To develop a physical education curriculum, start by drafting the philosophy, vision, and mission.

See the table below for items that should be in a conceptual framework and examples of each item.

Items	Definition	Example
Philosophy	A statement that is intended to guide the beliefs, expectations, and decisions related to physical education in schools.	Physical education provides students with the skills, knowledge, and attitudes for a lifetime of physical activity. The physical education program (1) develops students’ personal activity and health habits by teaching the value of physical activity and exposing them to meaningful experiences, (2) develops and enhances students’ movement competency and motor skills, and (3) provides students with a conceptual understanding of physical activity related principles including health and wellness. ⁹
Vision	A statement about what the physical education program will accomplish. It is future-oriented with a description of outcomes to accomplish.	All students will acquire the motor skills to perform a variety of physical activities and the knowledge to pursue a healthy and physically active lifestyle beyond their schooling.
Mission	A general statement of how the physical education program will achieve the vision.	The Townsend Public Schools’ Physical Education Program will provide experiences that develop students who have the knowledge, skills, and confidence to pursue a lifetime of physical activity.
Goals	Statements of what needs to be accomplished to reach the vision and achieve the mission. They should be short-term and realistic.	Goal 1: The curriculum outcomes are based on national or state physical education standards. Goal 2: Physical education teachers receive professional development related to instruction and assessment yearly.
Objectives	Specific actions that are precise and measurable and include a timeline for achieving the goal. This is how the vision becomes a reality.	Objective 1 for Goal 1: By the end of the 2018–2019 school year, the physical education curriculum will have been reviewed to ensure alignment with national or state physical education grade-level outcomes for students in K–12. Objective 1 for Goal 2: By the end of the 2018–2019 school year, all physical education teachers will have participated in at least 2 professional development opportunities related to instruction and assessment.

Curriculum Development Process Worksheet

Name(s) of person(s) completing the worksheet:

Date:

Philosophy for Physical Education

Vision for Physical Education

Mission of Physical Education

Goals and Objectives of the Physical Education Program

Goal 1: _____

Objective 1a: _____

Objective 1b: _____

Objective 1c: _____

Goal 2: _____

Objective 2a: _____

Objective 2b: _____

Objective 2c: _____

Goal 3: _____

Objective 3a: _____

Objective 3b: _____

Objective 3c: _____

Goal 4: _____

Objective 4a: _____

Objective 4b: _____

Objective 4c: _____

Goal 5: _____

Objective 5a: _____

Objective 5b: _____

Objective 5c: _____

Step 2—Assess needs and identify issues that may affect the physical education program and the implementation of the physical education curriculum.

To ensure the physical education program can support the implementation of a well-designed, standards-based physical education curriculum, it is important to understand what could affect the physical education program and implementation of the physical education curriculum.

Go to Section 1 ([page 9](#)) and review the Physical Education Curriculum Description, Accuracy Analysis, Acceptability Analysis, Feasibility Analysis, and Affordability Analysis worksheets. Use these worksheets as a guide to develop the physical education curriculum and ensure that it will score high on each worksheet.

Step 3—Use the national or state physical education standards and grade-level outcomes to guide the development of the physical education curriculum.

The physical education curriculum should be aligned with the national standards and grade-level outcomes for physical education. Most states use the national standards for K–12 physical education and grade-level outcomes developed by SHAPE America.^{6,8} Some states have their own standards, but they are usually based on the national standards.

Determine if the school district or school should use national or state standards to guide the development of the physical education curriculum. Use the standards and grade-level outcomes to develop and select appropriate content, lessons, activities, and student assessments within the physical education curriculum.

Step 4—Write detailed lessons or units and develop student assessments that address the national or state physical education standards and grade-level outcomes.

The national standards and grade-level outcomes identify the content to be taught, but they do not give teachers specific information (for example, lesson plans, activities, and teaching strategies) on how to teach students the skills they need to achieve the standards and outcomes.^{6,8} Lesson plans or units should include activities and student assessments that are related directly to the identified grade-level outcomes. Generally, lesson plans should include:

- A learning objective based on standards and grade-level outcomes.
- Learning experiences that lead to successful completion of the lesson.
- An assessment so that students know how they are doing.

Use Section 2 of the PECAT to guide development of lesson plans or units and student assessments that align with grade-level outcomes. For example, if the PECAT Committee is developing an elementary K–5 physical education curriculum, start on [page 31](#) of the PECAT. Choose a standard and grade-level outcome to develop a lesson plan or unit that includes activities to help students learn the content and ways to assess students to show they have learned the content and achieved the grade-level outcome.

Developing lesson plans or units is time consuming and will not be completed until there are lesson plans or units that address all of the standards and outcomes (or the ones selected) for each grade level. As the lessons or units and assessments are being developed, keep track of the monetary and environmental resources needed. This information can be documented in the Affordability Analysis Worksheet on [page 24](#).

Step 5—Determine scope and sequence for physical education.

Another important resource in the physical education curriculum is the scope and sequence document. This document can be used to help with planning lessons and tracking what students should know or do and when this information should be taught for each grade or grade group to increase knowledge and skills for physical education. 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.¹⁰

Use the scope and sequence document that aligns with the national standards^{6,8} and grade-level outcomes that SHAPE America previously developed. Some school districts or schools might want to use the PECAT to develop their own scope and sequence document. This document is most often represented as a table or matrix.¹¹ The format of the document may vary, but the essential elements include:

- The key learning topic(s).
- Grade levels (for example, K, 1, 2, 3).
- Desired outcomes.
- Specific knowledge and skill expectations aligned with the topic and grade group or grade level.

The result of the Curriculum Development Process should be a planned, sequential, written K–12 physical education curriculum based on national or state physical education standards. The curriculum should clearly articulate the content to be taught, guide appropriate instruction, and identify student assessments that will provide evidence of student learning.

Appendix B: PECAT Glossary

Activity categories⁶

The following are categories of activities in the National Standards for K–12 Physical Education, with explanations provided elsewhere in this glossary: aquatics, dance and rhythmic activities, fitness activities, games and sports, individual-performance activities, lifetime activities, and outdoor pursuits.

Absolute intensity

See **Intensity**.

Aerobic physical activity¹²

Activity in which the body's large muscles move in a rhythmic manner for a sustained period. Aerobic physical activity, also called endurance activity, improves cardiorespiratory fitness. Examples include walking, running, swimming, and bicycling.

Alignment

Clear and direct relationship between standards, curricula, instructional materials, instructional methods, and assessments.

Aquatics⁶

Might include, but are not limited to, swimming, diving, synchronized swimming and water polo.

Assessment

Process of gathering evidence and documentation of a student's learning.

Balance¹²

A performance-related component of physical fitness that involves the maintenance of the body's equilibrium while stationary or moving.

Balance training¹²

Static and dynamic exercises that are designed to improve individuals' ability to withstand challenges from postural sway or destabilizing stimuli caused by self-motion, the environment, or other objects.

Biomechanics

Application of scientific principles, such as force and power, in the study of human movement.

Cardiorespiratory fitness¹²

A health-related component of physical fitness defined as the ability of the circulatory and respiratory systems to supply oxygen during sustained physical activity. Also called endurance. Cardiorespiratory fitness is usually expressed as measured or estimated maximal oxygen uptake.

Competency⁸

Sufficient ability, skill, and knowledge to meet the demands of a specific task or activity. For the standards, it is the ability for individuals to participate at the recreational level with skill and ability in self-selected activities.

Conceptual framework for physical education

Includes the physical education philosophy, mission, vision, goals, and objectives of the school district or school physical education program.

Content

Statements that describe an essential core of knowledge that students should be taught and be able to master.

Criterion-referenced assessment

Describes how well a student performs compared with a predetermined and specified standard of performance, as opposed to a norm-referenced assessment where a student's performance is compared with a normative sample of other students.

Critical features of movement

Those elements (for example, stepping forward on the opposite foot when throwing) of performing a skill deemed necessary for its correct execution.

Curriculum¹³

A written educational plan incorporating a structured, developmentally appropriate series of intended learning outcomes and associated learning experiences for students. Generally organized as a detailed set of written information, graphics, directions, instructional strategies, learning experiences, assessment strategies, and other materials.

Dance and rhythmic activities^{6,8}

Activities that focus on dance or rhythms and might include, but are not limited to, dance forms such as creative movement/dance, ballet, modern, ethnic/folk, hip hop, Latin, line, ballroom, social and square. Rhythmic activities for early elementary focus on recognizing and moving to rhythm. Rhythmic manipulative activities for elementary include lummi sticks, Tinikling, Chinese ribbons, and ball gymnastics.

Duration¹²

The length of time in which an activity or exercise is performed. Duration is generally expressed in minutes.

Exercise¹²

A subcategory of physical activity that is planned, structured, repetitive, and purposive in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. "Exercise" and "exercise training" frequently are used interchangeably and generally refer to physical activity performed during leisure time with the primary purpose of improving or maintaining physical fitness, physical performance, or health.

Fielding or striking games⁸

Games in which teams occupy positions throughout the space (field) and the other team tries to score by batting or striking an object into open space in the field, providing enough time for the hitter to run between bases or wickets. Examples include baseball, softball, and cricket.

Strategies and tactics of fielding or striking games²

Defensively, these include effective placement of field players so that they can prevent scoring. Offensively, these include batting and striking the object with appropriate power to open spaces in the field.

Fitness activities⁸

Activities with a focus on improving or maintaining fitness that might include yoga, Pilates, resistance training, spinning, running, fitness walking, fitness swimming, kickboxing, cardio-kick, Zumba, and exergaming.

Flexibility¹²

A health- and performance-related component of physical fitness defined as the range of motion possible at a joint. Flexibility is specific to each joint and depends on several specific variables, including but not limited to the tightness of specific ligaments and tendons. Flexibility exercises enhance the ability of a joint to move through its full range of motion.

Follow-up learning experience

Reviewing a concept or objective after it was initially introduced.

Frequency¹²

The number of times an exercise or activity is performed. Frequency is generally expressed in sessions, episodes, or bouts per week.

Fundamental motor skills

Locomotor, nonlocomotor, and manipulative skills are all considered fundamental, as they form the basis of several forms of movement and advanced skill development.

Games and sports¹³

Includes the games categories of invasion, net and wall, target, and fielding and striking.

Goals of physical education

Statements of what needs to be accomplished to reach the vision and achieve the mission for physical education. They should be short-term and realistic.

Grade-level outcomes

What students will learn and achieve in a certain grade level.

Health¹³

A state of complete physical, social, and mental well-being and not merely the absence of disease or infirmity. A functional state that allows a person to achieve goals and activities for a healthy life. A human condition with physical, social, and psychological dimensions, each characterized on a continuum with positive and negative poles.

Health-enhancing physical activity¹²

Activity that, when added to baseline activity, produces health benefits. Brisk walking, jumping rope, dancing, playing tennis or soccer, lifting weights, climbing on playground equipment at recess, and doing yoga are all examples of health-enhancing physical activity.

Health-enhancing physical fitness¹²

A type of physical fitness that includes cardiorespiratory fitness, muscular strength and endurance, body composition, flexibility, and balance.

Individual-performance activities⁶

Might include, but are not limited to, gymnastics, figure skating, track and field, multisport events, in-line skating, wrestling, self-defense, and skateboarding.

Initial learning experience

The first time a movement or motor concept or skill is presented.

Intensity¹²

Intensity refers to how much work is being performed or the magnitude of the effort required to perform an activity or exercise. Intensity can be expressed either in *absolute* or *relative* terms.

- **Absolute.** The absolute intensity of an activity is determined by the rate of work being performed and does not take into account the physiologic capacity of the individual. For aerobic activity, absolute intensity typically is expressed as the rate of energy expenditure (which is expressed in terms of METs, or metabolic equivalents of task and is based on milliliters per kilogram per minute of oxygen being consumed) or, for some activities, simply as the speed of the activity (for example, walking at 3 miles an hour or jogging at 6 miles an hour) or the physiologic response to the intensity (for example, heart rate). For resistance activity or exercise, intensity frequently is expressed as the amount of weight lifted or moved.
- **Relative.** Relative intensity takes into account or adjusts for a person's exercise capacity. For aerobic exercise, relative intensity is expressed as a percentage of a person's aerobic capacity (VO₂max) or VO₂ reserve or as a percentage of a person's measured or estimated maximum heart rate (heart rate reserve). It also can be expressed as an index of how hard the person feels he or she is exercising (for example, a 0 to 10 scale).

- **Moderate-intensity physical activity.** On an absolute scale, physical activity that is done at 3.0 to 5.9 times the intensity of rest. On a scale relative to an individual's personal capacity, moderate-intensity physical activity is usually a 5 or 6 on a scale of 0 to 10.
- **Vigorous-intensity physical activity.** On an absolute scale, physical activity that is done at 6.0 or more times the intensity of rest. On a scale relative to an individual's personal capacity, vigorous-intensity physical activity is usually a 7 or 8 on a scale of 0 to 10.

Invasion games⁸

Games in which teams score by moving a ball or projectile into another team's territory and either shooting into a fixed target, goal, or basket or moving the projectile across an open-ended target (for example, a line). To prevent scoring, one team must stop the other team from bringing the ball into its territory and attempting to score. Examples include basketball, ultimate, and soccer. In grades 6–8, skills include throwing, passing, receiving, catching, offensive and defensive tactics, dribbling and ball control, and shooting on goal. In grades 6–8, concepts include creating space with movement, creating space with offensive tactics, creating space using width and length, reducing space by changing size and shape, reducing space using denial, and transitions.

Strategies and tactics of invasion games⁸

These include using teammates to open space on offense, with or without the ball, so decisions include when to pass, carry the ball, shoot, and move to create open space. These also include reducing space on defense, so decisions include which players to cover and when to move to reduce space.

Knowledge¹³

Developmentally appropriate, functional information that students should know on each topic.

Learning experience

Presentation of and subsequent participation in a movement or motor concept or skill.

Lifestyle activities¹²

This term is frequently used to encompass activities that a person carries out in the course of daily life and that can contribute to sizeable energy expenditure. Examples include taking the stairs instead of using the elevator, walking to do errands instead of driving, getting off a bus one stop early, or parking farther away than usual to walk to a destination.

Lifetime activities⁸

Activities that are suitable for participation across the life span and that a person can do alone or with a partner as opposed to a team. These include the categories of outdoor pursuits, selected individual performance activities, aquatics, and net or wall and target games.

Locomotor skills

Basic motor skills involving a change of position of the feet or the body or both. For grades K–5, the focus is on hopping, galloping, running, sliding, skipping, leaping, jogging, running, jumping and landing (horizontal and vertical plane), dancing, and combinations of these activities.

Manipulative skills

Basic motor skills involving handling an object. For grades K–5, the focus is on underhand throw, overhand throw, passing with hands, catching, dribbling or ball control with hands, dribbling or ball control with feet, passing and receiving with feet, dribbling in combination, kicking, volley underhand, volley overhead, striking with a short implement, striking with a long implement, jumping rope, and combinations with locomotor skills.

Mature form

The most efficient pattern of movement (for example, for an overhand throw, stepping forward on the opposite foot, combined with hip rotation and appropriate follow-through).

Mission of physical education

A general statement of how the physical education program will achieve its vision.

Moderate intensity physical activity

See **Intensity**.

Motor development

The study of change in movement behaviors and motor skills across the life span.

Motor learning

The study of change in a person's ability to perform a motor skill. The examination of a child's changing ability to skip from kindergarten through sixth grade represents changes in motor learning.

Motor skills⁸

Skills that provide the foundation for more complex and sport-specific movement patterns used in games and sports. The six fundamental motor skills are running, jumping and landing, kicking, throwing, catching, and striking.

Movement concepts⁸

The application of knowledge and concepts related to skillful performance of movement and fitness activities, such as spatial awareness, effort, tactics, strategies, and principles related to movement efficiency and health-enhancing physical fitness. For grades K–5, the focus is on space, pathways, shapes, levels, speed, direction, force, alignment and muscular tension, and strategies and tactics.

Net or wall games⁸

Games in which individual players or teams score by hitting a ball into a court space with sufficient accuracy and power so that opponents cannot hit it back before it bounces once (for example, badminton or volleyball) or twice (for example, racquetball or tennis). Opponents are generally separated by a net, but in some cases they share a court and the walls are in play (for example, racquetball or squash). In grades 6–8, skills include serving, striking, forehand and backhand, weight transfer, volley, and two-hand volley. In grades 6–8, concepts include creating space through variation and using tactics and shots.

Strategies and tactics of net or wall games⁸

Offensively, these are based on pulling the opponent out of position or hitting to an open space.

Defensively, these are based on reducing open space by good court position and anticipating the opponent's shot.

Nonlocomotor skills¹⁴

Movement of the body performed from a relatively stable base of support. These stability skills include movements of limbs or body parts. Examples include bending, stretching, twisting, turning, leaning, swaying, and swinging.

Objectives for physical education

Specific actions that are precise and measurable and include a timeline for achieving the goals for physical education. This is how the vision becomes a reality.

Outdoor pursuits⁶

The outdoor environment is an important factor in student engagement in the activity. Activities might include, but are not limited to, recreational boating (for example, kayaking, canoeing, sailing, or rowing), hiking, backpacking, fishing, orienteering/geocaching, ice skating, skateboarding, snow or water skiing, snowboarding, snowshoeing, surfing, bouldering/traversing/climbing, mountain biking, adventure activities, and ropes courses. Selection of activities depends on the environmental opportunities within the geographical region.

Performance assessment of students

Direct observation and judgment of student products or performances. High-quality performance assessment uses pre-established performance criteria. In standards-based assessment, these criteria are taken directly from the standards.

Performance concepts¹³

Specific indicators that students should know and skills they should be able to do to demonstrate movement relative to a given target or standard.

Performance standards

Statements that describe an essential core of skills that students should be taught and be able to master. They should include the expected quality of student work and specify “how good is good enough.” In the PECAT, questions in the student assessment analysis reflect necessary components of each national standard for age-appropriate assessment of student performance.

Philosophy of physical education

Guides the beliefs, expectations, and decisions related to physical education in schools.

Physical activity¹²

Any bodily movement that is produced by the contraction of skeletal muscle and that results in an increase in energy expenditure over rest.

Physical education²

Planned, sequential, standards-based program of curricula and instruction for students in kindergarten through grade 12. It is designed to develop knowledge and behaviors for active living, motor skills, physical fitness, self-efficacy, emotional intelligence, and sportsmanship.

Physical education content

Units, lessons, and activities in the curriculum that are developmentally appropriate, that align with the national physical education standards, and that help students achieve grade-level outcomes.

Physical fitness¹²

The ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies. Physical fitness includes several components consisting of cardiorespiratory endurance (aerobic power), skeletal muscle endurance, skeletal muscle strength, skeletal muscle power, flexibility, balance, speed of movement, reaction time, and body composition.

Physical literacy⁸

The ability to move with confidence and competence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person. It encompasses the three domains of physical education: affective, cognitive, and psychomotor.

Relative intensity

See **Intensity**.

Scope¹³

A horizontal articulation of a curriculum. It identifies key learning concepts across grade levels.

Scope and sequence¹³

A curricular structure that outlines the breadth and depth of key learning concepts across grade levels (scope) and the logical progression of essential knowledge, skills, and behaviors to be addressed at each grade levels (sequence). Together, the scope and sequence of learning bring order to the delivery of content, supporting maximum student learning and offering sustained opportunities for learning.

Sequence

The vertical articulation of a curriculum. It identifies, defines, and describes the skills and activities that should be covered on a yearly basis. Appropriate sequence ensures that students will be provided with different instruction at each grade-level range, to build on skills in an age-appropriate fashion.

Specialized movement forms

The more complex skills and movements unique to individual and team sports, dance, and gymnastics activities. Examples of specialized movement forms include the overhand serve in volleyball, the underhand clear in badminton, the handstand in gymnastics, and the grapevine step in dance.

Stability¹⁴

A stable base of support. For grades K–5, the focus is on balance, weight transfer, rolling, curling and stretching, twisting and bending, balance and weight transfer, and combinations of these motions.

Standards

Statements that identify what students are expected to know and be able to do at various points in their K–12 experience.

Standards-based curriculum

A curriculum designed to produce student understanding and work that demonstrates achievement of standards.

Strength¹²

A health and performance component of physical fitness that is the ability of a muscle or muscle group to exert force.

Strength training¹²

Physical activity, including exercise, that increases skeletal muscle strength, power, endurance, and mass. Also called muscle-strengthening activity or training, resistance training, or muscular strength and endurance exercises.

Student assessment¹³

The process of gathering, describing, or quantifying information about student performance and level of achievement based on established standards.

Target games⁸

Games in which players score by throwing or striking an object to a target. Accuracy is a primary focus on the activity, and competitors share no physical contact. These games are considered opposed because opponents may block or hit another player's ball to a less desirable position (for example, bocce, croquet, or shuffleboard). Some target games are considered unopposed because opponents may not interfere with a shot. In grades 6–8, skills include throwing, striking, and catching. In grades 6–8, concepts include shot selection.

Strategies and tactics of target games⁸

These are based on movement accuracy and consistency.

Vigorous intensity physical activity

See **Intensity**.

Vision of physical education

A statement about what the physical education program will accomplish. It is future-oriented, with a description of outcomes to accomplish.

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