

STRATEGY 1	Increasing Minutes of Physical Education
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“Snapshot”				
Description:				
The goal of this strategy is to provide physical education at least 90 minutes per week at the elementary and middle level and at least 150 minutes per week at the high school level for students enrolled in physical education.				
Resources Needed:				
Funding	Staff Time	Prep Time/Materials	Training	
Additional PE teacher time may be a major expense. Funds for a curriculum team and additional equipment maybe needed.	Extra PE teacher time and/or general elementary teacher time.	Resources to revise curriculum may be needed.	In-service training may be needed.	
Facilities and Equipment Needed:				
Facilities	Equipment	Set up / take down time	Transportation	Custodial
Varies	Varies	Varies	None	Varies
Evaluation:				
Increase in the average number of minutes per week in Physical Education.				

Description and Rationale:

Increasing minutes of physical education time means increasing the average number of minutes per week that students take part in PE class. The goal is to provide physical education *at least* 90 minutes per week at the elementary and middle school level and at least 150 minutes per week at the high school level for students enrolled in physical education. Increasing time in PE class ensures virtually all students will get increased physical activity. Increasing PE time will help students better meet all PE standards.

The following maximum class length for physical education instruction for elementary grade levels is recommended as appropriate: a maximum of 30 minutes per class in grades K-2 and a maximum of 45 minutes per class in grades 3-5.

Middle and high school are more flexible, but should reflect the schedule the school has developed in all content areas, whether the school has block scheduling or traditional class periods.¹

School physical education programs offer the best opportunity to provide physical activity to all children and to teach them the skills and knowledge needed to establish and sustain an active lifestyle. Physical education should not be compared to or confused with other physical activity experiences such as recess, in-class activity, intramurals, school sports, or recreational endeavors. A quality physical education program will address all six NASPE Content Standards by the end of the program.

¹ <http://www.aahperd.org/naspe/publications/teachingTools/> (Accessed May, 2010)

Action Steps:

1. Gather administrators and teachers to evaluate your current curriculum and schedule.
2. Complete NASPE “It’s Time for Your School’s Physical Education Checkup: How Are You Doing?”
3. Assess the current average number of minutes per week of physical education offered in the school or district at each level.
4. Assess the effectiveness of current physical education program in supporting all students to reach the district’s learning goals or standards.
5. Seek administrative and/or school board approval to increase PE class time.
6. Develop additional curriculum if needed.

Examples:

Green Lake’s Daily Physical Education 1-8

Green Lake School District is a 4K-12 school. Physical education is an integral part of each student’s school day. In Kindergarten, students receive 30 minutes of physical education four days a week. In first through eighth grade, students receive 30 minutes of physical education five days a week. Students in high school have to meet the graduation requirement for physical education, but can elect to take four years if they choose to. We also have a state-of-the-art fitness center that is used by students and Green Lake community members. For more information, contact Mary Allen, Principal.

Resources:

NASPE “It’s Time for Your School’s Physical Education Checkup: How Are You Doing?”
<http://www.aahperd.org/naspe/publications/teachingTools/upload/School-PE-Program-Checklist-Web-9-14-09.pdf>

The Physical Education Curriculum Analysis Tool (PECAT) will help pilot school districts conduct a clear, complete, and consistent analysis of written physical education curricula, based upon national physical education standards. The PECAT is customizable to include local standards. The results from the analysis can help school districts enhance existing curricula, develop their own curricula, or select a published curriculum, for the delivery of a quality physical education program.
<http://www.cdc.gov/healthyyouth/PECAT/>

STRATEGY 2	Active Minutes in Class
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“Snapshot”				
Description:				
The goal is to have the majority of PE classes in a school where at least 50% of the class time students have an elevated heart rate. Specific strategies will reduce attendance time, add instant activity, establish immediate routines, vary instructional strategies, add technology such as heart rate monitors and pedometers, and assess for moderate to vigorous physical activity (MVPA) are components a successful active PE classroom.				
Resources Needed:				
Funding	Staff Time	Prep Time/Materials	Training	
Additional technology funding may be needed.	Training on some of the strategies.	Prep time administrative and organizational.	Could have a specialized training on this strategy with successful samples.	
Facilities and Equipment Needed:				
Facilities	Equipment	Set up / take down time	Transportation	Custodial
Gymnasium and/or outdoor fields	Normal physical education materials plus technology.	10-15 minutes for both	None	None
Evaluation:				
Timing sample classes to measure the amount of time most students are active.				

Description and Rationale:

Effective physical educators can teach skills while students spend a majority of their time being physically active; they employ a variety of strategies, all of which may be used to increase the amount of active time. These include management strategies such as active roll call and assigned roles, and instructional strategies such as student-selected activities during the beginning and end of class. Once an analysis of active time in class is done, new strategies can be used to increase active time. The goal is to have the majority of PE classes in a school where at least 50% of the class time students have an elevated heart rate. Studies show that students often spend more than 50% of their physical education class engaged in non-activity. If students are to achieve fitness and skill development goals designated by most programs, it is important that they be successfully motor-engaged for a high percentage of class time.

Active minutes in PE class relates to NASPE Standard 3: Participates Regularly in Physical Activity.

Action Steps:

1. Analyze time spent in moderate to vigorous physical activity.
Use a video of a class and a stopwatch, check how much time is spent in activities such as management (attendance, selecting equipment, grouping, etc.), transition, listening to the teacher talk, and appropriate activity. If video is not available, another teacher or helper can use a stopwatch either to time what the majority of the class is doing or target a selected group of students and track their activities during the class. See the tools in Resources below.
2. Use one or more of the following strategies to increase the amount of time in moderate or vigorous physical activity.
 - a. Review Class Size: Studies show that class size directly affects *management*. The National Association for Sport and Physical Education (NASPE) recommends that the size of physical education class be consistent with those of other subject areas (e.g. 1:25, 1:30, 1:35) for safe and effective instruction (NASPE 2006). (See Article attached *Large Class Size*). If schools have large class sizes, begin to work with effective routines, instructional strategies, and equipment needs.
 - b. Time Spent in Locker Room: Reduce time spent in locker room. Assess the need for changing into physical education attire for each unit. Change by choice has added a calming effect to many physical education programs. Avoiding participation is not an option. Students will participate, changing is the option.
 - c. Implement Instant Activity: Increase moderate and vigorous physical activity time by engaging the children and students in developmentally appropriate skill, activity, recreational and fitness choices at the beginning and even the end of class. Students will actively engage in choice activities with more enthusiasm than running laps or sitting and waiting for instruction. Consider taking attendance while students are active. See the examples below.
 - d. Assign Routines: Establish routines for all equipment, supplies, and technology. Assign students “jobs” to assist with the care and proper storage of all physical education teaching needs. Change student jobs weekly as a part of routines.
 - e. Utilize PE Technology: Integrate pedometers and heart rate monitors into physical education classes. Have students record steps and time spent in the Target Heart Rate Zone.
3. Reassess the time in moderate or vigorous physical activity and use the results to refine and improve practice.

Examples:

Elementary

Assess multiple grade levels and many classes for moderate or vigorous physical activity. Following a reflection, the teacher will increase moderate to vigorous activity time by:

1. Providing an instant activity for all grade levels and removing the old concept of coming into the gym and quietly sitting in squad lines.
2. Adding pedometers and pedometer charts for each class.
3. Creating pedometer challenges and seeking on-line challenges for use of pedometers during physical education.

4. Replacing all activities where students are sitting out or eliminated with developmentally appropriate activities (e.g. relay games, elimination games, and side-line games).
5. Using small sided games and student designed activities to promote skill acquisition rather than competitive two-team games.
6. Integrating a greater variety of instructional strategies including learning centers and child design to promote physical activity and choice during physical education.

Secondary

Teacher assesses multiple classes for moderate or vigorous physical activity. Following reflection, the teachers set goals to do the following:

1. Reduce time in locker room to a maximum of 5 minutes.
2. Take roll on the run and increase student responsibility during management. Take roll using alternate methods.
3. Integrate some instant activity choices for students who enter the gym from the locker room. Change the instant activity choices with each unit.
4. Assign student roles to help with all management duties during physical education units.
5. Plan for alternative days. When the weather or unexpected circumstances remove a class from the planned teaching area, always have a back up unit rather than a “free-day.”
6. Increase student choice in all activities. Provide novice to expert choices in all activities to keep all students challenged.
7. Integrate more 3 on 3 tournaments rather than large regulation size competitions. This will mimic games played with friends and family in parks and backyards.
8. Integrate the use of interactive heart rate monitors. Allow students to track their heart rate over the course of a unit.
9. Provide activity choices to keep students moving until the bell rings. Plan for transition to reduce waiting time.

Resources:

1. Use of Class Time: Analysis of Management, Activity, Instruction, and Waiting Time

Purpose of the Activity: Teachers will analyze times physical education students spend in Management, Activity, Instruction, and Waiting Time during physical education lessons.

Materials Needed:

- Video tape one or more physical education lessons
- Stop Watch
- Time Code Form
- Objective for the lesson observed

Directions:

1. Familiarize yourself with the directions on the time code analysis.
2. Prepare your observation area so you can see all the students in the class.
3. Videotape one or more physical education lessons or have an observer complete the Time Analysis Code on one or more physical education lessons.
4. Begin the stop watch as soon as the physical education class begins.
5. Observe the students in the class.

- Using the time coding form, record Management, Activity, Instruction, or Waiting on the timeline. Your decision should be based on what most of the students in the class are doing. Use the following time codes.

M = Management is the time when most of the students (50% or more) are not receiving instruction or involved in lesson activity. Examples include: Changing clothes, getting out or putting away equipment, listening to behavior rules or reminders, grouping students, and moving between activities.

A = Activity time when most of the students (over 50%) are involved in activity that is directly related to your lesson objectives. Examples: Catching a ball, passing a puck, tossing a Frisbee.

I = Instruction time when most students (over 50%) are receiving instruction about how to perform skills listed in the lesson objectives. Examples include: How to toss the Frisbee to a target; how to receive a ball on a Lacrosse stick.

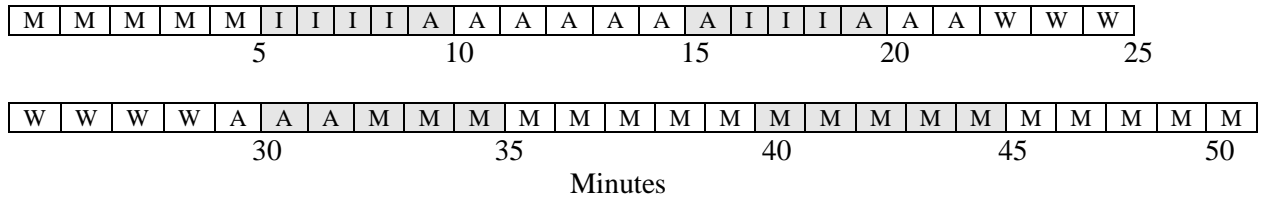
W = Waiting time when most students (over 50%) are not involved in Management, Activity, or Instruction. Examples: Group activities when only one or two students are participating, waiting for a turn, off-task behavior, waiting for the teacher to give directions. Traditional relays are a good example.

- Mark the time code form each time the focus of the lesson changes.
- Continue your analysis until the end of the physical education class period.
- After you have finished coding the students' activity, total the number of minutes spent in Management, Activity, Instruction, and Waiting, and record in the calculation area. Divide by the total number of minutes in the class. This will give you the total percentage of time the students spent in each category. The goal of a physical education class is to have 80% of the students active 80% of the time. NOTE: This is simply a goal. It is not realistic on the first day of the unit or a day when much instruction is needed for effective learning.

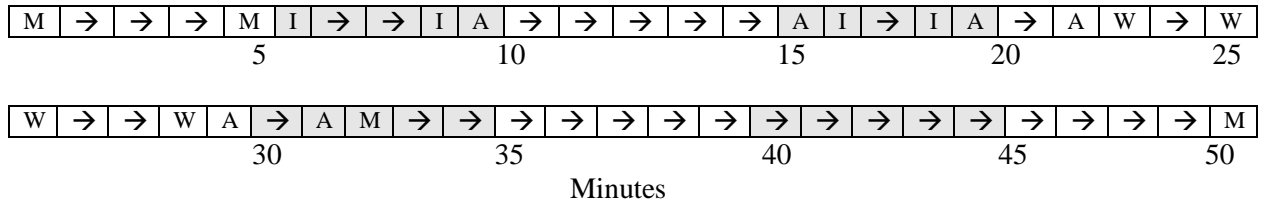
Toward the end of a unit, students should be physically active approximately 80% of the lesson. There are units with higher liability where the students will engage in more instruction early in the unit and more actively later in the unit. If there is, however, a pattern of great waiting time and great management time consistently in all units, the teacher has room for improvement. Students should average over 50% and up to 80% of time in moderate or vigorous physical activity in their physical education units. (Lacy, 1995, Graham 2010)

Time Analysis Example

Example of time tracking:



Or

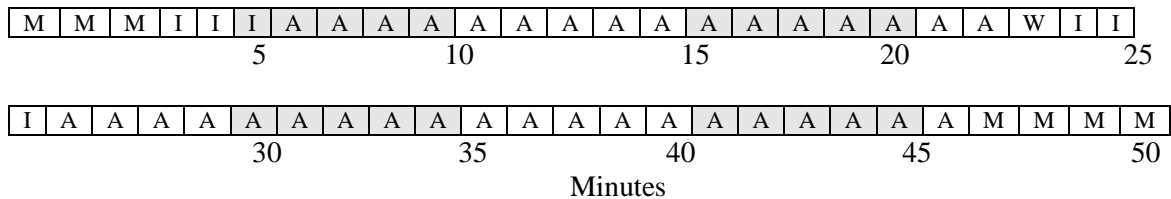


Initial assessment:

	Total # minutes	% of class time
Management	<u>18</u>	<u>40%</u>
Activity	<u>13</u>	<u>29%</u>
Instruction	<u>7</u>	<u>16%</u>
Waiting	<u>7</u>	<u>16%</u>

In this example, the breakout by category shows 40% in class Management, **29% in Activity**, 16% in Instruction, and 16% in Waiting. With only 29% of class time spent in activity, there is a lot of room for improvement.

Perhaps an example a few months later might look like this:



Follow-up assessment:

	Total # minutes:	% of class time
Management	<u>7</u>	<u>16%</u>
Activity	<u>31</u>	<u>69%</u>
Instruction	<u>6</u>	<u>13%</u>
Waiting	<u>1</u>	<u>2%</u>

In the follow-up example, the breakout by category now shows only 16% in class Management, **69% in Activity**, 13% in Instruction, and 2% in Waiting. The increase from 29% of class time spent in activity to 69% of time being active is significant.

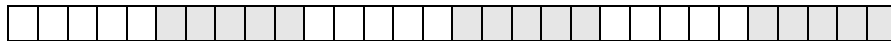
Time Analysis Form

Teacher Name _____ Class _____

Date _____ Grade _____ # of students in class _____

M = Management Time **A** = Activity Time **I** = Instruction time **W** = Waiting time

Each box represents one minute of class time.



Total # minutes:		% of class time
Management	_____	_____
Activity	_____	_____
Instruction	_____	_____
Waiting	_____	_____

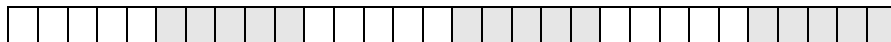
Notes:

Teacher Name _____ Class _____

Date _____ Grade _____ # of students in class _____

M = Management Time **A** = Activity Time **I** = Instruction time **W** = Waiting time

Each box represents one minute of class time.



Total # minutes:		% of class time
Management	_____	_____
Activity	_____	_____
Instruction	_____	_____
Waiting	_____	_____

Notes:

2. Question Roll Call

Concept being taught: review, starting lessons quickly, and getting to know each other during roll call. The purpose of the activity is to quicken the process of taking roll call and providing a way to get to know others in the class. The materials needed are a bulletin board, chalkboard, or 5x8 cards.

Description of the Activity:

As the students enter the physical education class, have a “roll call question of the day” posted for them to read and develop a response. At the beginning of class, the teacher can verbally ask the students the question and for each of their responses as they simultaneously take role.

Examples of questions you can ask:

- True or false? Taking a brisk walk for 20 minutes, five times a week, is a good way to improve cardiovascular endurance.
- What are the three cues to striking a ball with a bat?
- Find a partner to walk or jog around our space with. What is your favorite activity and why should we participate in this activity during physical education class?

Tips for Success:

1. Have the students form groups and walk around the room in different pathways or matching and mirroring movements as they discuss the topic.
2. Invite the idea of diversity of opinion, knowledge, and experience in answers.
Example: Who is your favorite role model? Which characteristics make him/her a good role model? Keep answers to one sentence (e.g. Dwight Howard is my favorite role model because.....”)
3. Ask questions that require quick answers and explanation of reasoning. Use topics that review cues related to past skills learned in class and can assess student learning.

3. Taking Roll on the Run

Roll rules:

1. Develop four or five methods of taking roll that are comfortable for you and keep the students active.
2. Be creative.
3. Have the students come up with creative ideas-give them the opportunity to succeed and even fix methods that fail. Hold students accountable for reporting their attendance.
4. Remember to A.I.M. for 80% activity time over the course of a unit.
A = Activity (80%)
I = Instruction (10%)
M = Management (10%)

Roll call is considered Management time: Other management tasks in physical education include 1) preparing the environment, 2) getting students’ attention, 3) teaching and organizing class formations, 4) organizing groups or teams, and 5) adapting to interruptions.

A fast, effective roll call system gets class started on the right track. An effective roll call should take only one or two minutes at the most. Time spent in roll call reduces the learning time for students,

therefore efficient use of time is essential. When too much time is taken for roll call, students become bored and discipline problems may arise.

The major criteria for selection of a roll call technique are time and accuracy. Five traditional techniques are commonly used:

Numbers or Spots: Students stand or sit on a number or spot. Advantage: very fast and accurate. Disadvantage: Impersonal and who wants to hurry out of the locker room to stand or sit on a number – no activity involved.

Squads – A leader is selected and each day the leader reports who is absent. Advantage: this may be done while the students are warming up. Disadvantage: Squads need to be changed often.

Student Check In – Students check in as they enter the gym by signing their name and time of entry or by checking in with the teacher or by handing in an assignment or by removing their name tags from a board or a box and placing them in a specified location OR wearing them until you learn their names (tags must be safe for activity). Those remaining are absent. Advantage: The students take responsibility for their attendance and little class time is taken. Disadvantage: Teacher must be very organized and use non-class time to prepare student check-in activity.

Silent Roll – The teacher or teacher’s aide takes roll silently while students are participating in activity. Advantage: the students remain active. Disadvantage: teacher must know names and it is easy to miss a student.

Oral Roll – The teacher calls out a student’s name and listens for a response. Advantage: helps with name recognition and acquaints the teacher with the student. Disadvantage: only effective when used with very small classes, it is time consuming and students are not actively involved with the objectives of the lesson.

4. Pedometer resource:

“Log-It” on PE Central <http://www.peclogit.org/logit.asp>

STRATEGY 3	Fitness Assessment
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“Snapshot”				
Description:				
The goal is to have the majority of PE classes for grades four and higher administer an aerobic fitness assessment for all students and use those results to improve the PE class so fitness levels increase.				
Resources Needed:				
Funding	Staff Time	Prep Time/Materials	Training	
A site license costs \$349 for one product, FitnessGram.	Implementation time. One class period for the endurance run.	When you purchase the license you get a CD that describes the materials you will need to conduct the test.	Day long training for using one product, FitnessGram.	
Facilities and Equipment Needed:				
Facilities	Equipment	Set up / take down time	Transportation	Custodial
Computer lab, if students are entering results in some programs	CD and cones for the progressive aerobic cardiovascular endurance run is needed.	A few minutes before to set up the room and few minutes to break it down	None	None
Evaluation:				
Measure improvement on an aerobic fitness test such as PACER by comparing results at the beginning of a physical activity program and compare to the results at the end of the time period. It could be done at the beginning of the school year and at the end of the school year.				

Description and Rationale:

Fitness assessment involves using carefully-designed tests for aerobic capacity, strength, flexibility, and endurance. The best tests allow the student and teacher to compare the results to set standards regarding what defines adequate fitness. These are referred to as criterion-referenced tests, in contrast to those that only compare results to those of other students, known as norm-referenced tests. The most important tests for long-term health measure aerobic capacity also known as cardiovascular fitness or endurance tests. This can be done with a timed distance run or similar tests. All aspects of fitness, however, are important for long-term health and ability to do a variety of types of physical activity.

Some fitness assessments also use measurement of height and weight, and calculate the Body Mass Index or BMI. While this may be valuable information for some families, it is not a fitness test.

Some fitness assessment programs also include reports for the teacher on individual, class, and school- or district-wide results, as well as reports to parents. Integrating systematic fitness assessment into physical education assures accurate information for all students, teachers, and parents/guardians. Families can use the information to guide lifestyle choices and encourage more or different physical activity. It also

provides a baseline measure of a student's fitness level and aggregate data for the school that can be used to measure progress over time. This data can be used to modify curriculum and look at other options to increase physical activity level if individual or school data are low.

Fitness assessment relates to NASPE Standard 4: Achieves and maintains a health-enhancing level of physical fitness.

Action Steps:

1. Select a fitness assessment tool and the tests to be used.
 - NOTE: The DPI and UW-Madison School of Medicine and Public Health encourage the use of FitnessGram. Research conducted by the UW suggests that the aerobic fitness tests in this program have well-established standards or acceptable scores that align well with the best available laboratory measurements of aerobic fitness. These include the PACER (Progress Aerobic Cardiovascular Endurance Run) and the mile run/walk. The UW considers these to be the best tests of aerobic fitness available.
2. Train staff in fitness assessment, if needed.
3. Select grades or classrooms in which to implement the chosen fitness test.
4. Schedule and conduct the tests.
5. Give a report on the results to students and parents/guardians.
6. Use the class or school-wide results to help improve the school's PE program.
 - For example if results show that many students are below the standard in aerobic fitness, devote more PE class time to building aerobic capacity. If results show that many students lack flexibility, incorporate more stretching in the cool-down after activity.

Examples:

The Milwaukee FitnessGram Story

Milwaukee Public Schools (MPS) teachers are implementing the FitnessGram program tests in grades 4, 6, and 10 in the 2009-2010 school year. MPS staff are dedicated to the development of the whole child and understand that students' health and wellness are important indicators of future health and academic success. FitnessGram helps students understand how to improve or maintain a healthy lifestyle.

MPS purchased a version of the FitnessGram program that is server-based. This allows the individual teacher, the school, and the district to use the FitnessGram program to make data driven decisions. Individual teachers can see where their students are as a whole, and adjust their curricula to address weaknesses in particular classes or the school program as a whole. The district will be able to link the FitnessGram data to other data, such as attendance or academic achievement test scores.

In MPS, 131 teachers have been trained to use FitnessGram, including 25 staff trained as FitnessGram trainers. The goal is to have 80% of MPS physical education teachers completing FitnessGram test

protocols by the end of the 2009-2010 school year. All staff using FitnessGram do the BMI and PACER. Teachers who are full-time in their building are expected to complete all six fitness tests. For more information, contact: Brett Fuller, Curriculum Specialist, Milwaukee Public Schools, (414) 475-8057, fullerba@milwaukee.k12.wi.us

Morgandale K-8 School, MPS

Over the last couple of years, the PE teacher, Scott Koss, used FitnessGram results to modify some of his instruction. Noting many students' PACER test scores needed improvement, he used interval training at the beginning of class for five minutes during warm-ups. As the year goes on, the times change with students jogging more minutes with shorter walking time in between, decreasing recovery time.

Koss tests twice a year, comparing spring results to fall, to see the impact of his instruction. While recognizing that other factors such as activity level outside of school could affect the student's results, he likes to help students see improvements in their scores. To also help students be active and improve scores, he set up a walking course around the playground that students use during recess or outside of school. Students track their distance walked, turn in the results, and earn an award. Koss is seeing good results, but recognizes that it takes ongoing efforts to help improve his students' fitness and health. For more information contact: Scott Koss, Morgandale K-8, Milwaukee Public Schools, kosssj@milwaukee.k12.wi.us.

Resources:

FitnessGram <http://www.fitnessgram.net>

The FitnessGram uses standardized tests to provide the student, teacher, and parents with accurate information regarding the students' current level of fitness. The assessment items include the following:

Aerobic Capacity—may select one option

- PACER test
- One-mile run/walk
- Walk test (ages 13 or older)

Muscular Strength, Endurance, and Flexibility

- Abdominal strength and endurance (curl-up)
- Trunk extensor strength and endurance (trunk lift)
- Upper body strength and endurance (choose from push-up, modified pull-up, and flexed arm hang)
- Flexibility (choose from back-saver, sit-and-reach, and shoulder stretch.)

Body Composition—may select one option

- Percent body fat (calculated from triceps and calf skin folds or entered from an alternative measuring device)
- Body mass index (calculated from height and weight)

Appropriate uses of FitnessGram include:

- Personal testing to help students evaluate their level of health-related fitness
- Institutional testing to allow teachers to view group data (for curricular development)

- “Personal best” testing to allow individual students to privately determine performance levels
- Teaching students about criterion-referenced health standards and what types of activity are needed to reach them
- Helping students track fitness results over time (e.g. portfolios)
- Documenting that FitnessGram is being administered in schools and that student self-assessments are being tracked over time.

ActivityGram is a separate module within the FitnessGram software that provides a detailed assessment of a student’s level of physical activity. It is designed to help youth learn to self-monitor their personal physical activity patterns. Students complete a recall of their previous days’ activities and may print out a personalized report. Appropriate uses of ActivityGram include:

- Personal testing to help students assess their current level of activity
- Institutional testing to allow teachers to view group data (for curriculum development)
- Teaching students about different types and intensities of activity and the health benefits of being physically active
- Helping students self-monitor physical activity over time (e.g. portfolios)
- Documenting that ActivityGram is being administered in schools and that student self-assessments are being tracked over time

For more information: *FITNESSGRAM/ACTIVITYGRAM* Test Administration Manual, The Cooper Institute. Marilu D. Meredith, Gregory J. Welk, Editors