Summary of Fitness Test Principles

- The primary reason for testing is to provide the student with personal information that may be used in planning a personal fitness program and developing motivation to take care of their health to reach their maximum potential.
- FITNESSGRAM® is just an assessment; it is what the teachers do with the information that is truly valuable.
- > Physical fitness testing should not become a competitive sport.
- > The performance of one student should not be compared to that of another student.
- > The performance level on fitness tests should not be used as a basis for grading.
- > The physical fitness experience should always be fun and enjoyable.
- > Students should not be encouraged to perform beyond the benchmarks.





FITNESSGRAM® Tests

Six Recommended Tests Are Bolded

AEROBIC CAPACITY

1) **PACER** (Progressive Aerobic Cardiovascular Endurance Run) – Set to music, a paced, 20-meter shuttle run increasing in intensity as time progresses

Or:

- One-Mile Run Students run (or walk if needed) one mile as fast as they can
- Walk Test Students walk one mile as fast as they can (for ages 13 or above since the test has only been validated for this age group)

BODY COMPOSITION

2) Skin Fold Test – Measuring percent body fat by testing the tricep and calf areas

Or:

• Body Mass Index – Calculated from height and weight

MUSCULAR STRENGTH AND ENDURANCE

- 3) **Curl Up** Measuring abdominal strength and endurance, students lie down with knees bent and feet unanchored. Set to a specified pace, students complete as many repetitions as possible to a maximum of 75
- 4) **Trunk Lift** Measuring trunk extensor strength, students lie face down and slowly raise their upper body long enough for the tester to measure the distance between the floor and the student's chin
- 5) **Push-Up** Measuring upper body strength and endurance, students lower body to a 90-degree elbow angle and push up. Set to a specified pace, students complete as many repetitions as possible

Or:

- Modified Pull-Up (proper equipment required) With hands on a low bar, legs straight and feet touching the ground, students pull up as many repetitions as possible
- Flexed Arm Hang Students hang their chin above a bar as long as possible

FLEXIBILITY

6) **Back-Saver Sit and Reach** – Testing one leg at a time, students sit with one knee bent and one leg straight against a box and reach forward

Or:

• Shoulder Stretch – With one arm over the shoulder and one arm tucked under behind the back, students try to touch their fingers and then alternate arms











Test Administration Protocols

Testing Protocols are available in the FitnessGram[®] Test Administration Manual. A Test Administration Manual was included with the original software. Copies of the FitnessGram[®] Test Administration Manual-4th Edition can be found at <u>http://www.fitnessgram.net/showproduct/?isbn=9780736068567</u>. This fully updated manual now includes a CD-ROM of the Pacer cadences and also contains a DVD with video clips to help teachers administer the FitnessGram assessments.

The DVD features video clips showing all test protocols, including common errors and corrections. It includes reproducible forms, charts, certificates and reports needed to conduct the tests, record the results, and communicate to administrators, students, and parents.

The manual introduces teachers to the program components and the mission, goals, and philosophy behind the program. It provides information on fitness education and assessment guidelines, and details the assessment process step-by-step. It also explores ways to promote physical education.

The manual focuses on various aspects of FitnessGram[®] and takes teachers through test administrations issues, including safety guidelines, considerations for special populations, and administration to primary grades. It provides tests for aerobic capacity, explains how to determine body composition through several methods, and shows how to test for muscular strength, endurance, and flexibility. It also answers questions related to FitnessGram[®] and guides teachers in interpreting results.

There is also a section that provides an assessment model for ActivityGram[®] that outlines administration of the program and how to interpret results in order to provide feedback to students. Appendixes provide guidelines on where to find testing equipment and how to use it, answers to frequently asked questions, and health-related fitness charts and copy masters of forms and reports.

Fitnessgram[®] Healthy Fitness Zone Standards Frequently Asked Questions

Redefined Fitnessgram criterion-referenced standards (the Healthy Fitness Zone standards) for body composition and aerobic capacity have been developed. You should begin using these new standards for the 2010-2011 school year.

Answers to frequently asked questions regarding the new standards can be viewed at: <u>http://www.fitnessgram.net/newstandards/</u>



Standards for Healthy Fitness Zone[®] Revision 8.6 and 9.x

BOYS

Aerobic Capacity VO				Percent Body Fat			Body Mass Index				
	<u>PACER,</u> NI-High Risk	<u>One Mile Ru</u> NI-Some Risk	<u>m/kg/min)</u> <u>n & Walk Test</u> HFZ	Very Lean	HFZ	NI-Some Risk	NI-High Risk	Very Lean	HFZ	NI-Some Risk	NI-High Risk
5	Comple	tion of tost I	an	<u><</u> 8.8	8.9-18.8	18.9	<u>></u> 27.0	<u><</u> 13.8	13.9-16.7	16.8	<u>></u> 17.5
6	Comple	uon oj iesi. L	ap count	<u><</u> 8.4	8.5-18.8	18.9	<u>></u> 27.0	<u><</u> 13.7	13.8-16.9	17.0	<u>></u> 17.8
7	or time	standards no	t	<u><</u> 8.2	8.3-18.8	18.9	<u>></u> 27.0	<u><</u> 13.7	13.8-17.3	17.4	<u>></u> 18.3
8	recomm	iended.		<u><</u> 8.3	8.4-18.8	18.9	<u>≥</u> 27.0	<u>≤</u> 13.8	13.9-17.8	17.9	<u>></u> 19.0
9				<u><</u> 8.6	8.7-20.6	20.7	<u>></u> 30.1	<u>≤</u> 14.0	14.1-18.5	18.6	<u>></u> 19.9
10	<u><</u> 37.3	37.4-40.1	<u>≥</u> 40.2	<u><</u> 8.8	8.9-22.4	22.5	<u>></u> 33.2	<u><</u> 14.2	14.3-18.9	19.0	<u>></u> 20.8
11	<u><</u> 37.3	37.4-40.1	<u>≥</u> 40.2	<u><</u> 8.7	8.8-23.6	23.7	<u>></u> 35.4	<u>≤</u> 14.5	14.6-19.7	19.8	<u>></u> 21.8
12	<u><</u> 37.6	37.7-40.2	<u>≥</u> 40.3	<u><</u> 8.3	8.4-23.6	23.7	<u>></u> 35.9	<u>≤</u> 15.0	15.1-20.5	20.6	<u>></u> 22.7
13	<u><</u> 38.6	38.7-41.0	<u>≥</u> 41.1	<u>≤</u> 7.7	7.8-22.8	22.9	<u>≥</u> 35.0	<u>≤</u> 15.4	15.5-21.3	21.4	<u>></u> 23.6
14	<u><</u> 39.6	39.7-42.4	<u>≥</u> 42.5	<u>≤</u> 7.0	7.1-21.3	21.4	<u>></u> 33.2	<u>≤</u> 16.0	16.1-22.1	22.2	<u>></u> 24.5
15	<u><</u> 40.6	40.7-43.5	<u>≥</u> 43.6	<u><</u> 6.5	6.6-20.1	20.2	<u>></u> 31.5	<u><</u> 16.5	16.6-22.9	23.0	<u>></u> 25.3
16	<u><</u> 41.0	41.1-44.0	<u>≥</u> 44.1	<u><</u> 6.4	6.5-20.1	20.2	<u>></u> 31.6	<u><</u> 17.1	17.2-23.7	23.8	<u>></u> 26.0
17	<u><</u> 41.2	41.3-44.1	<u>≥</u> 44.2	<u>≤</u> 6.6	6.7-20.9	21.0	<u>≥</u> 33.0	<u>≤</u> 17.7	17.8-24.4	24.5	<u>></u> 26.7
>17	<u><</u> 41.2	41.3-44.2	<u>≥</u> 44.3	<u><</u> 6.9	7.0-22.2	22.3	<u>></u> 35.1	<u>≤</u> 18.2	18.3-25.1	25.2	<u>></u> 27.5

	Curl-up # completed	Tr _ <u>1</u> 	r unk <u>Lift</u> nches	Push-up # completed	Modified <u>Pull-up</u> # completed	Flexed Arm <u>Arm Hang</u> seconds	Back Saver Sit & Reach* inches	Shoulder <u>* Stretch</u>
5	<u>></u> 2	6	12	<u>></u> 3	<u>></u> 2	<u>></u> 2	8	Healthy Fitness
6	<u>></u> 2	6	12	<u>></u> 3	<u>≥</u> 2	<u>></u> 2	8	Zone = Touching
7	<u>≥</u> 4	6	12	<u>≥</u> 4	<u>></u> 3	<u>></u> 3	8	fingertips
8	<u>≥</u> 6	6	12	<u>≥</u> 5	<u>≥</u> 4	<u>></u> 3	8	the back on both
9	<u>></u> 9	6	12	<u>≥</u> 6	<u>></u> 5	<u>≥</u> 4	8	right and left
10	<u>></u> 12	9	12	<u>≥</u> 7	<u>></u> 5	<u>≥</u> 4	8	sides
11	<u>></u> 15	9	12	<u>≥</u> 8	<u>></u> 6	<u>≥</u> 6	8	
12	<u>></u> 18	9	12	<u>≥</u> 10	<u>≥</u> 7	<u>></u> 10	8	
13	<u>></u> 21	9	12	<u>≥</u> 12	<u>></u> 8	<u>></u> 12	8	
14	<u>></u> 24	9	12	<u>≥</u> 14	<u>></u> 9	<u>></u> 15	8	
15	<u>></u> 24	9	12	<u>≥</u> 16	<u>></u> 10	<u>></u> 15	8	
16	<u>></u> 24	9	12	<u>≥</u> 18	<u>></u> 12	<u>></u> 15	8	
17	<u>></u> 24	9	12	<u>≥</u> 18	<u>></u> 14	<u>></u> 15	8	
17+	<u>></u> 24	9	12	<u>></u> 18	<u>></u> 14	<u>></u> 15	8	

**Test scored Yes/No; must reach this distance on each side to achieve the HFZ.



Standards for Healthy Fitness Zone[®] Revision 8.6 and 9.x

GIRLS

<u>Aerobic Capacity</u> VO			<u>apacity</u>		Percent Body Fat			Body Mass Index			
<u>P/</u>	<u>ACER, O</u> NI-High Risk	<u>ne Mile Run 8</u> NI-Some Risk	kg/min) <u>& Walk Test</u> HFZ	Very Lean	HFZ	NI-Some Risk	NI-High Risk	Very Lean	HFZ	NI-Some Risk	NI-High Risk
5				<u><</u> 9.7	9.8-20.8	20.9	<u>></u> 28.4	<u><</u> 13.5	13.6-16.7	16.8	<u>></u> 17.3
6	Comple	etion of test. L	ap count	<u><</u> 9.8	9.9-20.8	20.9	<u>></u> 28.4	<u><</u> 13.4	13.5-17.0	17.1	<u>></u> 17.7
7	or time	standards no	t	<u>≤</u> 10.0	10.1-20.8	20.9	<u>≥</u> 28.4	<u><</u> 13.4	13.5-17.5	17.6	<u>≥</u> 18.3
8	recomn	nended.		<u>≤</u> 10.4	10.5-20.8	20.9	<u>≥</u> 28.4	<u><</u> 13.5	13.6-18.2	18.3	<u>≥</u> 19.1
9				<u><</u> 10.9	11.0-22.6	22.7	<u>≥</u> 30.8	<u><</u> 13.7	13.8-18.9	19.0	<u>></u> 20.0
10	<u><</u> 37.3	37.4-40.1	<u>≥</u> 40.2	<u><</u> 11.5	11.6-24.3	24.4	<u>≥</u> 33.0	<u><</u> 14.0	14.1-19.5	19.6	<u>></u> 21.0
11	<u><</u> 37.3	37.4-40.1	<u>≥</u> 40.2	<u><</u> 12.1	12.2-25.7	25.8	<u>≥</u> 34.5	<u><</u> 14.4	14.5-20.4	20.5	<u>></u> 21.9
12	≤37.0	37.1-40.0	<u>≥</u> 40.1	<u>≤</u> 12.6	12.7-26.7	26.8	<u>≥</u> 35.5	<u><</u> 14.8	14.9-21.2	21.3	<u>≥</u> 22.9
13	<u><</u> 36.6	36.7-39.6	<u>≥</u> 39.7	<u><</u> 13.3	13.4-27.7	27.8	<u>></u> 36.3	<u><</u> 15.3	15.4-22.0	22.1	<u>></u> 23.8
14	<u><</u> 36.3	36.4-39.3	<u>></u> 39.4	<u><</u> 13.9	14.0-28.5	28.6	<u>></u> 36.8	<u><</u> 15.8	15.9-22.8	22.9	<u>></u> 24.6
15	<u><</u> 36.0	36.1-39.0	<u>></u> 39.1	<u><</u> 14.5	14.6-29.1	29.2	<u>></u> 37.1	<u><</u> 16.3	16.4-23.5	23.6	<u>></u> 25.4
16	<u><</u> 35.8	35.9-38.8	<u>≥</u> 38.9	<u><</u> 15.2	15.3-29.7	29.8	<u>≥</u> 37.4	<u><</u> 16.8	16.9-24.1	24.2	<u>></u> 26.1
17	≤35.7	35.8-38.7	<u>≥</u> 38.8	<u>≤</u> 15.8	15.9-30.4	30.5	<u>></u> 37.9	<u><</u> 17.2	17.3-24.6	24.7	<u>></u> 26.7
>17	<u><</u> 35.3	35.4-38.5	<u>></u> 38.6	<u><</u> 16.4	16.5-31.3	31.4	<u>></u> 38.6	<u><</u> 17.5	17.6-25.1	25.2	<u>></u> 27.2

	<u>Curl-up</u> # completed	Tru Lit	unk <u>ft</u> hes	90º <u>Push-up</u> # completed	Modified Pull-up # completed	Flexed Arm Arm Hang seconds	Back Saver Sit & Reach*	Shoulder <u>* Stretch</u>
5	<u>></u> 2	6	12	<u>></u> 3	<u>></u> 2	<u>≥</u> 2	9	Healthy Fitness
6	<u>></u> 2	6	12	<u>></u> 3	<u>></u> 2	<u>></u> 2	9	Zone = Touching
7	<u>≥</u> 4	6	12	<u>≥</u> 4	<u>></u> 3	<u>≥</u> 3	9	together behind
8	<u>></u> 6	6	12	<u>></u> 5	<u>≥</u> 4	<u>></u> 3	9	the back on both
9	<u>></u> 9	6	12	<u>></u> 6	<u>≥</u> 4	<u>></u> 4	9	right and left
10	<u>></u> 12	9	12	<u>></u> 7	<u>≥</u> 4	<u>≥</u> 4	9	sides
11	<u>></u> 15	9	12	<u>></u> 7	<u>≥</u> 4	<u>≥</u> 6	10	
12	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>></u> 7	10	
13	<u>></u> 18	9	12	<u>></u> 7	<u>></u> 4	<u>></u> 8	10	
14	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>></u> 8	10	
15	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>></u> 8	12	
16	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>></u> 8	12	
17	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>≥</u> 8	12	
17+	<u>></u> 18	9	12	<u>></u> 7	<u>≥</u> 4	<u>≥</u> 8	12	

**Test scored Yes/No; must reach this distance on each side to achieve the HFZ.

New FITNESSGRAM® Healthy Fitness Zone® Standards







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Need for New Standards

Aerobic Capacity Excessively high passing rates for young girls Classification disagreement between PACER and One Mile Run Body Composition Standards for very young children did not discriminate adequately Much more data for children is now available upon which to base standards







Basis for New Standards

 Nationally representative data on children from National Health and Nutrition Survey (NHANES)
 Analyses were conducted to find levels of body fatness and aerobic capacity that are associated with increased risk of metabolic syndrome
 Age and Gender specific taking into account normal changes during growth and maturation







What is Metabolic Syndrome?

Considered to have metabolic syndrome if you have three of the five conditions.

High blood pressure
High fasting glucose
High waist circumference
High triglycerides
Low HDL cholesterol







Characteristics of New Standards

Young boys and girls do not differ substantially but follow different patterns as age increases New standards will classify children into three zones: Healthy Fitness Zone Needs Improvement – Some Risk Needs Improvement – High Risk Three zones allow messaging to be much more specific







Unique to New Body Composition Standards

These are not the CDC percentile standards, they are criterion standards There will still be a Very Lean zone Body Composition standards were established based on levels of body fatness associated with increased risk of health problems Levels of Body Mass Index were equated with these levels of body fatness







Body Composition for Females









Body Composition for Females









Body Composition for Males









Body Composition for Males









Unique to New Aerobic Capacity Standards

All output will be expressed as Aerobic Capacity (VO_{2max}) rather than as PACER laps or One Mile Run time.

Calculation of Aerobic Capacity requires the input of height and weight – Body Mass Index is a very critical factor in one's ability to perform aerobically. Without BMI many students may be classified incorrectly.







Aerobic Capacity (VO_{2max}) for Females









Aerobic Capacity (VO_{2max}) for Males









Aerobic Capacity (VO_{2max}) Males vs. Females









(FG) FITNESSGRAM[®]

		Needs Improvement	Healthy Fitness Zone
>		High Risk SomeFRisk	
E	A erobic C	apacity	
A	Current:	39	98
3	Past:	37	69
OBIC		Your score for . time and your I such as runnin	Aerobic Capacity is based on your run BMI. It shows your ability to do activities g, cycling and spoMIrts at a high level.
8	Pace	r Lap s	BMI
A	Current:	11	23.24
	Past:	11	25.96



Percent Body Fat

ACTIVITY



physical activity for a total of 30-60 minutes, or more, over the course of the day?

On how many of the past 7 days did you do exercises to 4 strengthen or tone your muscles?

On how many of the past 7 days did you do exercises to 3 loosen up or relax your muscles?

Joe Jogger Grade: 5 Age: 12 FITNESSGRAM Elementary School

Instructor(s): Bostick, Sue

	Date	Height	Weight
Current:	01/15/2010	5'1"	123 lbs
Past:	05/05/2009	4'9"	120 lbs
	MESS	AGES	

You should work to improve your aerobic capacity. Try to do more physical activity (60 minutes every day) Play active games, sports, or other activities that make you breathe hard. Good aerobic capacity is important in preventing health problems.

To improve your upper-body strength, be sure that your strength activities include modified push-up, push-ups and climbing activities. You may need to do more arm exercises.

Your flexibility is in the Healthy Fitness Zone. To maintain your fitness, stretch slowly 3 or 4 days each week, holding the stretch 20-30 seconds. Don't forget that you need to stretch all areas of the body.

Your abdominal and trunk strength are both in the Healthy Fitness Zone. To maintain your fitness, be sure that your strength-training activities include exercise for each of these areas. Abdominal and trunk exercises should be done at least 3 to 5 days each week.

Joe, your body composition score needs improvement. If it stays at this level you will have a much greater chance of future health problems. You also report low levels of physical activity and this may lead to health problems. To improve, do the following:

-Try to get more activity (at least 60 minutes every day). -Reduce time spent watching TV or playing video games. -Eat a healthy diet including fresh fruits and vegetables. -Reduce your calories from foods with solid fats and added sugars.

Improving your body composition score will improve your health and may help increase other fitness scores.

Healthy Fitness Zone for 12 year-old boys

Aerobic Capacity = > 40.3 Curl-up - >18 repetitions Trunk Lift - 9-12 inches Push-up - >10 repetitions Back-Saver Sit and Reach - At least 8 inches on R & L Percent Body Fat - 8.4% - 23.6%

To be healthy and fit it is important to do some physical activity almost every day. Aerobic exercise is good for your heart and body composition. Strength and flexibility exercises are good for your muscles and joints.

Good job! You are doing some aerobic activity and strength and flexibility exercises. Additional vigorous aerobic activity would help to promote higher levels of fitness.

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How Will the New Standards Change Test Administration

Test administration does not change The test items are still the same The data that is entered in the computer is the same The one thing that will be different is that motivation for children on the aerobic test cannot be based on how much they have to do. Children will have to "do their best" Changes will show up when you print reports group and individual







How Do I Get the New Standards

 Posted at www.fitnessgram.net
 In version 8.6 and 9.1 of the FITNESSGRAM software







Contact

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972-341-3261





