ParkwayFit

Fitness Assessment Program

Based upon the

2016-17

(7/30/2016)

ParkwayFit

PARKWAY PHYSICAL FITNESS ASSESSMENT INFORMATION
2016-17

The Parkway Fitness Assessment utilizes the Presidential Youth Fitness Program (PYFP) required by the Missouri Department of Elementary and Secondary Education (DESE). The PYFP entails a series of Fitnessgram assessments which measures health-related fitness levels. Parkway requires a formal health-related fitness assessment to be administered to all students enrolled in a physical education course beginning in third grade and continuing into high school. Fitness assessment results must be uploaded to the district's assessment system (PARS). Missouri Law requires that school districts submit their students' health-related fitness results as part of the district's core data for grades 5, 7, and 9 (See Cade's Law). Parkway requires reporting of health-related fitness scores of students enrolled in health and physical education courses in grades 5 – 8, as well as the high school Physical Fitness Concepts course. Other high school physical education courses should identify fitness assessments which are appropriate to the fitness pursuits integrated into the course.

The battery of health-related fitness tests should be administered formally at least once towards the end of a course, according to the district identified testing window. A pre-test at the beginning of the course, and other formative assessments (formal and/or informal) throughout the course, are recommended for the purpose of allowing students to develop personal goals and monitor progress towards those goals. Students with physical disabilities can have the tests modified, as determined by the physical education teacher with input from the adapted physical education teacher and/or paraprofessional (See Brockport Fitness Assessment Manual for alternative assessments).

The primary purposes of fitness assessment are to promote self-regulation of personal health-related fitness goals, as well as promote fitness development towards healthy fitness standards. Fitness assessment should be coupled with a personal fitness plan, in order to allow students to utilize results to help progress towards personal fitness and health goals. Assessment should be continuous and should NOT be seen as the "end-all" to fitness development or to the school year. Physical fitness testing is most effective when it is part of a comprehensive physical education program that supports testing with educational and motivational information. Your program should have a long-term emphasis of promoting appropriate physical activity rather than focusing on developing "athletic" physical fitness. Fitness will result from the participation in an active lifestyle and intrinsic motivation to pursue personal fitness goals.

The Parkway Fitness Assessment Program is comprised of the following assessment events, adopted by DESE and the Society of Health and Physical Education (SHAPE America). Parkway will utilize the following state-adopted fitness assessments to determine each student's level of fitness (see below). The test events measure a child's fitness level in the areas of Aerobic Capacity, Abdominal Strength, Upper Body Strength, Trunk and Hamstring Flexibility and Body Composition.

1. Aerobic Capacity (Grades 3-12)**
    - One Mile Run/Walk
    - PACER Shuttle Run (Recommended for elementary)
    - Walk Test (High School Option)

2. Abdominal Strength/Endurance
    - Curl-ups w/cadence

3. Upper Body Strength/Endurance (Choose only one of the two assessments below)
    - 90 Degree Push-ups w/cadence (Required for elementary)
    - Flexed-Arm Hang (Option for middle and high school students)

    Note: Pull-ups are no longer an assessment option but may be used in training for upper body strength development.

4. Flexibility (Perform both assessments below)
    - Trunk Lift
    - Sit-and-Reach

5. Body Composition –
    - Body Mass Index (BMI) – Measurement of Height and Weight++
    - Body Fat % (Additional measurement option for high school students)

** - National Healthy Fitness Standards for students in 3rd grade for the Mile Run/Walk or PACER are not identified. Students in grades K-2 may participate in modified endurance runs to develop Aerobic Capacity and practice taking the assessment.
++The measurement of a student's height and weight for the purpose of measuring Body Mass Index (BMI) is voluntary. Parents may choose to have their child opt out of this assessment. Please note that the measurement of BMI is necessary for calculating Aerobic Capacity.

Other Notes:

The results of the fitness tests should be entered into the ParkwayFit assessment program, located on Parkway Dashboard, by the end of the course. At least one measurement for each fitness area is required within the testing window. You may wish to upload other formal assessments (i.e., pre-tests, trimester scores), but **do not input informal measurements into the district data system.** Individual student reports should be generated and included in a P.E. portfolio or other school academic reports (See ParkwayFit program manual for "how to" directions for printing reports).

As Parkway students in grades K through 2 will not participate in formal fitness testing, schools may choose to have these students practice modified versions of the fitness assessments in order to practice these skills for future years. The PYFP Fitness Club is a way to recognition students for students who learn how to perform the various assessments. Go to "Recognition" page on the PYFP website (http://www.pyfp.org) for more information.

A detailed protocol for administering each of the Presidential fitness assessments can be found on the PYFP website or in the Cooper Institute's Fitnessgram 9 or 10 Assessment Manual (M.D. Meredith & G.J. Welk, 2010).

The following pages include a brief description of the ParkwayFit Assessment Program, as well as the Presidential Youth Fitness Program as adopted and adapted by the Parkway School District.

Mile Run/Walk Assessment

The one-mile run/walk is the recommended measurement for cardiovascular fitness with students in middle school and high school. It is also an option for the elementary level, but the PACER is highly recommended. Students will be instructed to complete a mile at the best pace that will allow them to maintain a target heart rate throughout the entirety of the run. If a student cannot run the total distance, walking is permitted. The time alone will not be used to determine a Healthy Fitness Zone. Instead, the mile time will be calculated with the Body Mass Index (BMI) score to determine an Aerobic Capacity score, which is an estimated measurement of maximal oxygen uptake of the body (VO2max). The Aerobic Capacity score will be used to determine a participant's overall level of cardiovascular fitness (See Appendix C and the PYFP charts from the Cooper Institute to calculate Aerobic Capacity). Note: Students who run the mile in 13:00 or more will not have a VO2max score calculated as the Aerobic Capacity formula reads inaccurately for scores higher than 13 minutes.

Performance standards, or Healthy Fitness Zone (HFZ) levels, are only identified for students in grades 4 and up, due to the concerns for reliability and validity of test results for very young children. Students in grade 3 will participate in the mile run, but will not have their scores measured against HFZ standards.

Note: The PACER assessment is a recommended alternative measurement for cardiovascular fitness with elementary students.

HFZ Standards for Mile Run Assessment		
Age	Boys	Girls
No qualifying standards/times are identified for the Mile Run as VO2max (calculation using both the Mile Run & BMI) is used to determine Aerobic Capacity. See PFYP Look Up Tables.		

See Appendix B for a table of all PYFP fitness standards.

See Parkway HPE website for full size poster.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

(7/30/2016)

PACER Assessment

The PACER assessment is an alternative measurement of cardiovascular fitness for all levels, but highly recommended for the elementary level. The PACER is a multistage 20-meter shuttle run (65.6 ft) that is progressive in intensity (Note: A 15-meter option is also available for smaller gym spaces). The progressive nature of the test provides a built-in warm-up and helps children to pace themselves effectively for this test of endurance. It is also a good training activity for students, at all levels, preparing to perform the mile run/walk assessment. Middle school and high school students may also use the PACER as a modified assessment for students who are not physically able to perform the Mile Run.

The objective of the PACER is to continue moving back and forth across a 20-meter space at a specified pace that gets faster each minute. Each time they successfully move across the space, in the time permitted, a "lap" is scored (See Appendix A for scoresheet). A beep will signal the start of each lap. Students continue in this manner until they fail to reach the end of the 20-meter space before the beep sounds a second time. There are 20 levels total and a maximum of 230 laps. Due to class time restrictions you may choose to have a lower maximum score. DO NOT STOP STUDENTS AFTER THEY HAVE REACHED THE HFZ STANDARD BELOW AS THEIR AEROBIC CAPACITY SCORE WILL BE IMPACTED BY THE NUMBER OF LAPS THEY ARE ABLE TO COMPLETE.

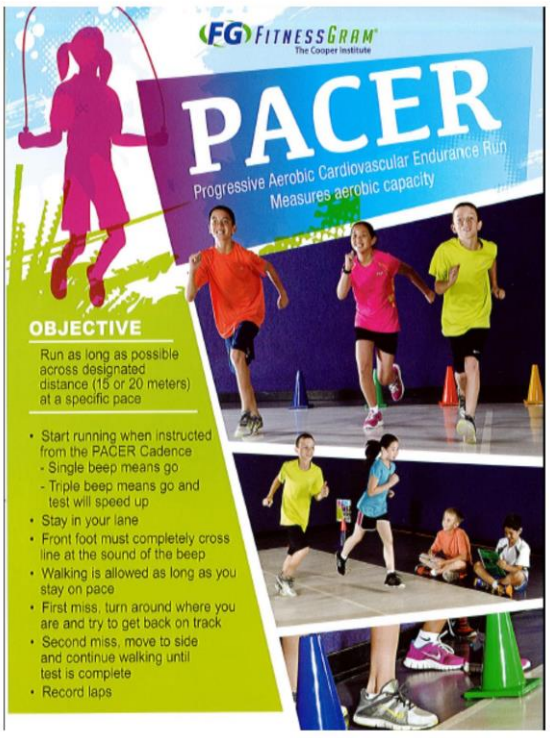
The PACER score DOES NOT require the Body Mass Index to determine a Healthy Level of Fitness (See chart below for PACER HFZ standards). However, the BMI is still used to calculate Aerobic Capacity (VO2max).

HFZ Standards for PACER Assessment
(New in 2014-15)

	PACER (20m) Laps		Aerobic Capacity	
Age	Male	Female	Male	Female
10	17	17	40.2	40.2
11	20	20	40.2	40.2
12	23	23	40.3	40.1
13	29	25	41.1	39.7
14	36	27	42.5	39.4
15	42	30	43.6	39.1
16	47	32	44.1	38.9
17	50	35	44.2	38.8
18	54	38	44.3	38.6

Note: Standards are also available for 15m option.

See Appendix B for a table of all PYFP fitness standards.



See Parkway HPE website for full size

Note: A 15-meter (49.2 ft) version of the PACER test is available for smaller sized facilities.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

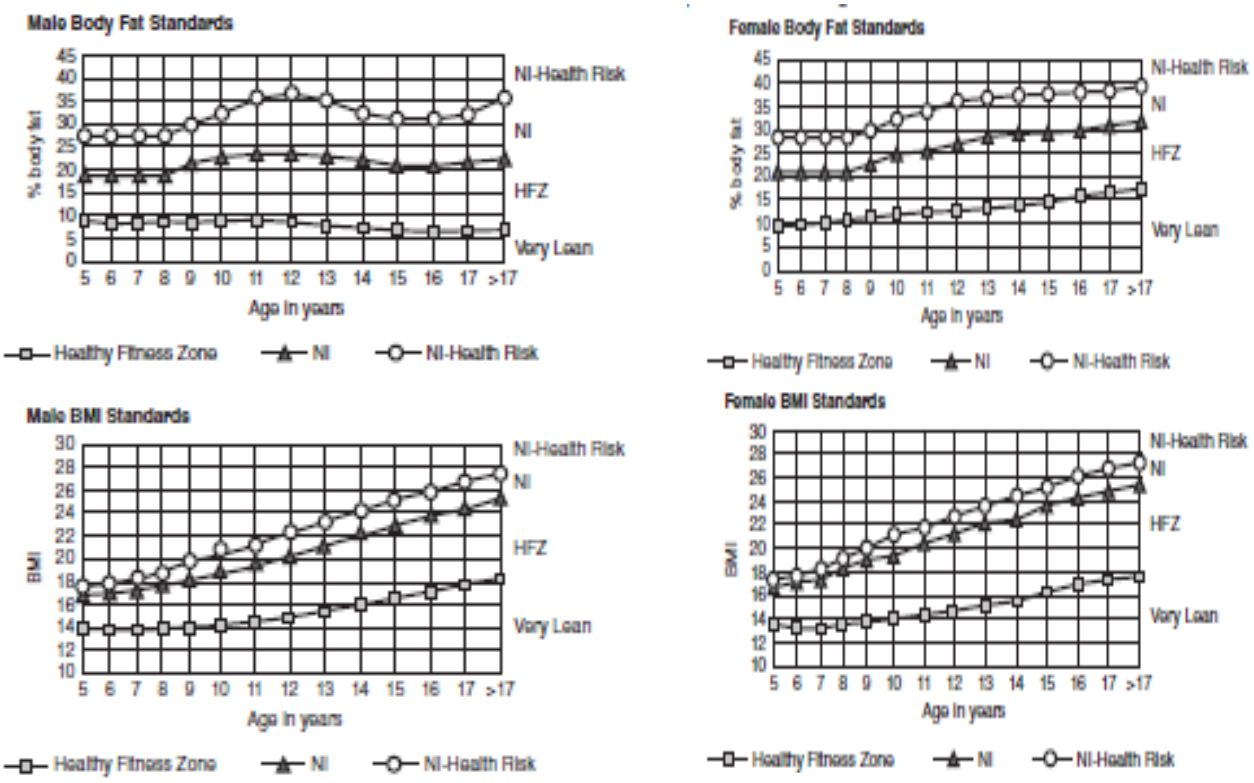
Body Composition Assessment

Body Mass Index (BMI) is used as a general measurement of body composition providing an indication of the appropriateness of a child's weight relative to height. While there are a number of methods for estimating body composition, BMI is the most practical method for measuring large populations of people. While each method has a degree of error, the limitation of the BMI is that it measures the weight of both muscle mass, bone mass, and fat mass. The BMI, however, is less intrusive to students than performing skinfold measurements, and is used ONLY as an initial assessment of healthy body weight. The Centers for Disease Control (CDC) supports the measurement of BMI as a reliable indicator of body fatness for most children and teens and correlates to more extensive direct measures of body fat.

The BMI score is calculated by measuring the height and weight of the student. The standards are aligned with CDC growth chart values and are classified in three unique zones - Healthy Fitness Zone, Nearing HFZ, and Below HFZ. The standards for Healthy Fitness Zone are age- and gender-specific, and take into account normal changes during growth and maturation. The changes are reflective of the natural development trends for boys and girls.

Students in grades 3-12 will have their height and weight measured as part of their fitness assessment in order to determine Aerobic Capacity which is a required fitness assessment. BMI scores alone are not used for determining overall fitness levels and are NEVER measured against any standard. However, BMI scores are used at a district level to determine youth population trends in overweightness and obesity.

You may use the PYFP Look Up charts on the Cooper Institute website to calculate Aerobic Capacity (See Appendix A).



High school students will also have their body fat % measured using a Bioelectric Impedance Analyzer (aka Body Fat Analyzer) to provide a better overall assessment of body composition.

See Parkway HPE website for full size poster.

For more information about BMI for children and teens, you can read the *Body Mass Index Measurement in Schools* Executive Summary (click here) or visit the Centers for Disease Control (CDC) website at http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html

Curl Up Assessment

The Curl-Up assessment is a measurement of abdominal strength and endurance. Students in grades 3-12 will have this assessment administered in physical education class as part of the series of physical assessments that measure health-related fitness. The Curl-Up assessment is selected for testing because of its perceived relationship to activities of daily living, correct posture, and the development and maintenance of a healthy, well-functioning core (back and stomach). To accomplish these goals an individual must have sufficient abdominal muscles.

Students should lie down in a supine position on a mat, knees bent at an angle of approximately 140-degrees, feet flat on the floor, lets slightly apart, arms straight and parallel to the trunk with palms of hands resting on the mat. A measuring strip is positioned on the mat under the person's legs so that the fingertips are just resting on the nearest edge of the measuring strip. Students follow an audio cadence sliding their fingers to the far side of the measuring strip on the cue "Up", raising their upper back off of the mat, and slide their hands back to the nearside and back to the starting position on the cue "Down." Students are instructed to perform as many curl-ups as possible, keeping pace with a specific cadence (1 curl every 3 seconds). The student is stopped when they can no longer continue, or when the second form correction is made. The maximum number a student can perform is 75 curl ups. The Healthy Fitness Zone (HFZ) is shown in the table below.

HFZ Standards for Curl-Up Assessment		
Age	Boys	Girls
8	6+	6+
9	9+	9+
10	12+	12+
11	15+	15+
12	18+	18+
13	21+	18+
14	24+	18+
15	24+	18+
16	24+	18+
17	24+	18+

See Appendix B for a table of all PYFP fitness standards.

See Parkway HPE website for full size poster.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

Sit and Reach Assessment

The Sit and Reach assessment will be used as a measurement of hamstring flexibility with students in grades 3 through 12. Students will be instructed to remove their shoes and sit with one leg extended with foot flat against the face of the measuring box. The other leg is bent with the sole of the foot flat on the floor approximately 2-3 inches to the side of the straight leg. Next the student should reach forward gently four times, with both hands as much as possible with palms down and placed one on top of the other. Measure the fourth reach, which should be held for at least one second. Both legs should be measured separately.

Performance standards, or Healthy Fitness Zone (HFZ) levels, are identified for students ages 5-17, but only students in grades 3-12 will be officially measured for reporting purposes. The score is recorded to the nearest 1/2 inch. The overall score will be the reach of the lesser of the two sides (left and right). Therefore, if a student reaches 10" with the left leg extended and 9" with the right leg extended, the overall score will be shown as 9".

Students in grades K through 2 will incorporate the Sit and Reach in their fitness development routine, but will not be officially tested.

HFZ Standards for Sit and Reach		
Age	Boys	Girls
8	8"	9"
9	8"	9"
10	8"	9"
11	8"	10"
12	8"	10"
13	8"	10"
14	8"	12"
15	8"	12"
16	8"	12"
17	8"	12"

See Appendix B for a table of all PYFP fitness standards.

See Parkway HPE website for full size poster.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

Push-Up Assessment

The push up assessment is a test for upper body strength and endurance. Push-ups are used exclusively at the elementary level, and are an optional assessment for upper body strength and endurance at the middle school and high school levels. Middle school and high school students can choose either the push up or flexed arm hang depending upon their comfort level and success with either test. The push-up assessment, or another upper body strength assessment besides the flexed arm hang, is highly encouraged for students who are overweight.

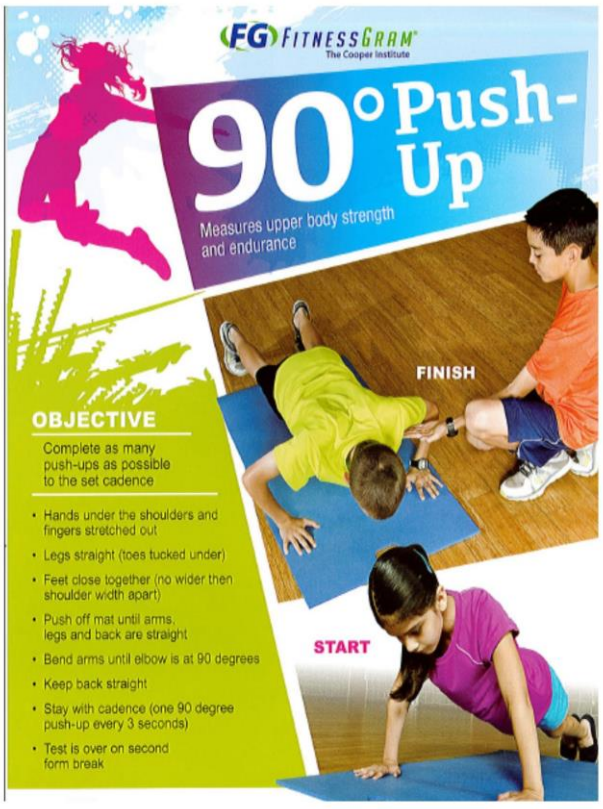
The object of the push up assessment is to complete as many 90-degree push-ups as possible at a rhythmic pace. The correct cadence is 20 push-ups per minute or 1 for every 3 seconds. Students will follow the pace of a recorded cadence to ensure accurate testing. Students continue with the cadence until they can no longer perform push-ups or cannot perform them with the correct technique.

Students being tested should assume a prone position on the floor (a mat is suggested) with arms straight, hands placed under or slightly wider than the shoulders, legs straight and slightly apart with toes tucked under. The student follows the cadence on the Fitnessgram audio, lowering body, on the cue "Down", using the arms until the elbows bend at a 90-degree angle and the upper arms are parallel to the floor (Note: Upper arm is also at a 90-degree angle to the body's torso). On the cue "Up", the student should push up until the arms are straight again for one complete repetition.

The student's score is the number of push-ups performed correctly until the student stops or is stopped by the teacher due to a second form correction. Students should complete as many repetitions as possible.

Push Up HFZ Standards		
Age	Boys	Girls
8	5	5
9	6	6
10	7	7
11	8	7
12	10	7
13	12	7
14	14	7
15	16	7
16	18	7
17	18	7
18	18	7

See Appendix B for a table of all PYFP fitness standards.



See Parkway HPE website for full size poster.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

Flexed Arm Hang Assessment

The Flexed Arm Hang is one of the assessments for measuring muscle strength and endurance. Specifically the arm hang assesses upper body muscle strength and endurance. The upper body is chosen because of its perceived relationship to activities of daily living.

The Flexed Arm Hang is a static test in which students grasp a horizontal bar with their hands and elevate themselves to a position where their chin is above the bar. This position is held as long as possible. The score is the number of seconds that the student was able to maintain a correct position with the chin over the bar.

The student assumes a hanging position on the bar with an overhand grasp (palms facing away from the body). With the assistance of one or more spotters, the student raises the body off the floor and chin above the bar with elbows flexed and chest close to the bar. A stopwatch is started as soon as the student takes this position. When the chin touches or drops below the bar the timer is stopped. Do not allow the body to swing during the test.

The Flexed Arm Hang can be used as an alternative assessment to the Push Up assessment in middle school and high school. Students may elect to choose the assessment for which they feel most comfortable and successful. Avoid using the Flexed Arm Hang with overweight or heavier students.

Flexed Arm Hang HFZ Standards		
Age	Boys	Girls
8	3	3
9	4	4
10	4	4
11	6	6
12	10	7
13	12	8
14	15	8
15	15	8
16	15	8
17	15	8
18	15	8

See Appendix B for a table of all PYFP fitness standards.

See Parkway HPE website for full size poster.

See Fitnessgram Test Administration Manual (4th ed) for complete instructions for fitness assessment procedures.

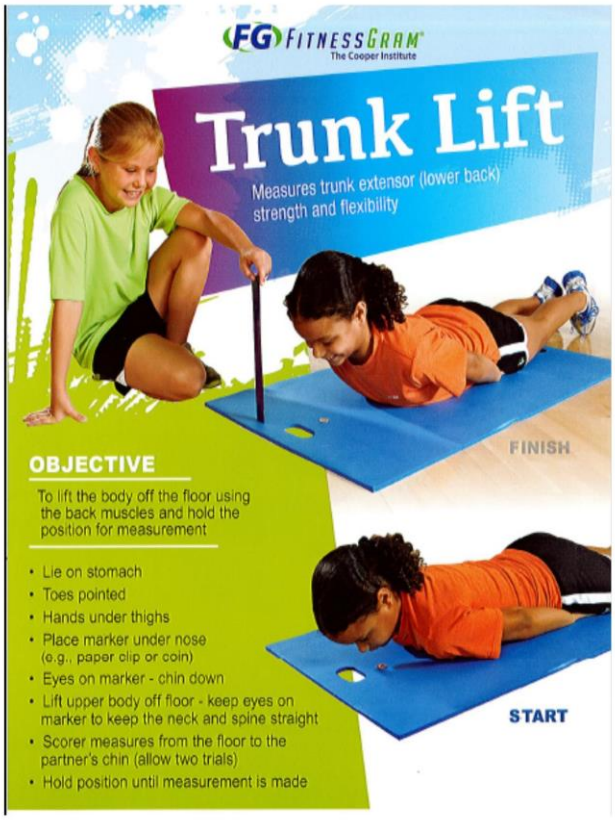
Trunk Lift Assessment

The trunk lift is a measurement of strength and flexibility of the lower back. It is included as a fitness assessment because of its relationship to low back health and proper vertebral alignment. Strength and flexibility with the trunk extensor muscles is an important aspect of maintaining a healthy back.

The trunk lift is performed by lying in a face-down position with arms along the side of the body and legs extended straight and together. The objective of the test is to lift the upper body off the floor using the muscles of the back to a comfortable position and hold to allow for the measurement. The score is recorded in inches, measuring the distance from the floor (or mat) to the chin. Do not allow students to over-extend their lift. It should be a smooth and comfortable lift without any stress to the back.

Trunk Lift HFZ Standards		
Age	Boys	Girls
8	6-12	6-12
9	6-12	6-12
10	9-12	9-12
11	9-12	9-12
12	9-12	9-12
13	9-12	9-12
14	9-12	9-12
15	9-12	9-12
16	9-12	9-12
17	9-12	9-12
18	9-12	9-12

See Appendix B for a table of all PYFP fitness standards.



See Parkway HPE website for full size poster.

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Presidential Healthy Fitness Award - Students must meet or exceed the Healthy Fitness Zone (HFZ) in Aerobic Capacity (or achieve the minimal number of laps on PACER), in addition to all four muscle fitness assessments (push ups or arm hang, sit-and-reach, trunk lift, and curl ups).

Parkway Fitness Improvement Award (optional) – Students who do not qualify for the Presidential Healthy Fitness Award, but show significant improvement from pre-test to post-test, in at least two areas of fitness, as determined by the Parkway Fitness Assessment Rubric (See Appendix D).

Parkway Fitness High-Achiever Award (optional) – Students who score at the highest level (Level 4) in each of the fitness areas, as determined by the Parkway Fitness Assessment Rubric (See Appendix D).

Presidential Active Lifestyle Award (optional) - Participants must meet a daily activity goal (60 minutes a day), at least 5 days a week, for 6 out of 8 weeks. For more information, see Presidential Active Lifestyle Award (PALA) at www.presidentschallenge.org/challenge/active

Parkway School Fitness Achievement Award

Gold Level - Schools who have 70% or more of its' students attain the Presidential Healthy Fitness level (Meet HFZ in Aerobic Capacity, plus 4 out of 4 muscle fitness tests).

Silver Level – 60% of its' students attain the Presidential Healthy Fitness level (Meet HFZ for Aerobic Capacity, plus 4 out of 4 muscle fitness tests).

Bronze Level – 50% of its' students attain the Presidential Healthy Fitness level (Meet HFZ for Aerobic Capacity, plus 4 out of 4 muscle fitness tests).

To determine Parkway School Fitness Achievement scores from all fifth graders are used at the elementary level, all eighth graders are used at the middle school level, and all students are used at the high school level. Schools must have 90% or more of their student enrollment reported in order to qualify.

QUALIFYING STANDARDS CAN BE FOUND IN APPENDIX B AND ARE ALSO POSTED AS A REPORT ON THE PARKWAYFIT ASSESSMENT PROGRAM ON THE PARKWAY ACCESS AND REPORTING SYSTEM (PARS).

Inappropriate Uses of Fitness Testing

1. **Awarding points for a child's performance on the fitness test.** Grading students on their fitness performance may be holding them accountable for accomplishments beyond their control and is **NOT recommended**. Fitness capacity, like blood cholesterol and VO2max, is largely determined by genetics.

   - Changes in body fatness and body size have major effects on fitness test performance.
   - During periods of rapid maturational change, children may experience an
   - increase or decrease in their abilities to perform on certain tests completely
   - independent of their levels of physical activity.

   Grading students on their understanding of fitness concepts, what the tests measure, designing a personalized fitness program and types of fitness enhancing activities are appropriate measures of student learning.

   - Students make choices that impact their health. Students who understand and value good nutrition and physical fitness will be more likely to make better choices and develop lifelong habits that maximize health.

   - Promoting physical fitness is only one part of a quality physical education program. Teaching physical skills, cooperative skills, and health maintenance skills are equally important objectives for promoting lifelong physical activity.

2. **Posting the test results for other students to see**. This can create an embarrassing situation that does little to foster positive attitude toward activity and fitness.

3. **Children are required to take fitness tests without adequate conditioning.** Proper preparation for the fitness test takes many months of training. Do not ask students to take a test for which they have not been prepared. Training for the mile run should involve several months of shorter runs which progressively get longer in length until they reach one mile or more. These practice runs will also allow a teacher to better know the physical capacities of each student.

4. **Expecting everyone to pass the test.** Encourage students to do their best, but do not continue to demand more effort if they are in a state of exhaustion or if the student indicates that they are not feeling well. Be sure that the mile run is planned on a day where the temperature and heat poses an unhealthy situation. See Parkway Physical Education Risk Management Guidelines.

5. **Teachers administer physical fitness tests once or twice each year for the purpose of identifying children to receive awards or to meet a requirement of the school district or state department.**

6. **Children complete physical fitness test batteries without understanding why they are performing the tests or the relationship to their activity level and individual goals.** Results are interpreted based on comparison to norms rather than in terms of how they apply to children's future health and well-being.

7. **Teachers measure the height and weight of a child in front of others in class and openly share the information.** Information obtained from the Body Mass Index (BMI) should be kept confidential between the teacher, student, and parent(s). It is encouraged that height and weight measurements take place in a private location that is not visible to the rest of the students.

8. **A child is disqualified from a fitness/health award due to a BMI score that does not meet the qualifying standard.** A child should not be deprived of receiving a fitness/health award because of their score on the BMI. Use this information to help students develop goals for improving their BMI score to move closer to a healthy level.

APPENDIX A

FITNESSGRAM

The PACER Individual Score Sheet A

Teacher _____ Class period _____ Date _____

Lap = one 20-meter length

Level	Laps													
1	1	2	3	4	5	6	7							
2	8	9	10	11	12	13	14	15						
3	16	17	18	19	20	21	22	23						
4	24	25	26	27	28	29	30	31	32					
5	33	34	35	36	37	38	39	40	41					
6	42	43	44	45	46	47	48	49	50	51				
7	52	53	54	55	56	57	58	59	60	61				
8	62	63	64	65	66	67	68	69	70	71	72			
9	73	74	75	76	77	78	79	80	81	82	83			
10	84	85	86	87	88	89	90	91	92	93	94			
11	95	96	97	98	99	100	101	102	103	104	105	106		
12	107	108	109	110	111	112	113	114	115	116	117	118		
13	119	120	121	122	123	124	125	126	127	128	129	130	131	
14	132	133	134	135	136	137	138	139	140	141	142	143	144	
15	145	146	147	148	149	150	151	152	153	154	155	156	157	

Lane _____ Student's signature _____ Laps completed _____

From *FITNESSGRAM/ACTIVITYGRAM Test Administration Manual, Updated Fourth Edition* by The Cooper Institute, 2010, Champaign, IL: Human Kinetics.

APPENDIX B

FITNESSGRAM®
The Cooper Institute

IN PARTNERSHIP WITH Play60 THE NFL MOVEMENT FOR AN ACTIVE GENERATION

Standards for Healthy Fitness Zone®
Version10.x
BOYS

	Aerobic Capacity VO_{2max} (ml/kg/min) PACER, One Mile Run & Walk Test			Percent Body Fat				Body Mass Index			
	NI-Health Risk	NI	HFZ	Very Lean	HFZ	NI	NI-Health Risk	Very Lean	HFZ	NI	NI-Health Risk
5	*Completion of test. Lap count or time standards not recommended.*			≤8.8	8.9-18.8	18.9	≥27.0	≤13.8	13.9-16.8	16.9	≥18.1
6				≤8.4	8.5-18.8	18.9	≥27.0	≤13.7	13.8-17.1	17.2	≥18.8
7				≤8.2	8.3-18.8	18.9	≥27.0	≤13.7	13.8-17.6	17.7	≥19.6
8				≤8.3	8.4-18.8	18.9	≥27.0	≤13.9	14.0-18.2	18.3	≥20.6
9				≤8.6	8.7-20.6	20.7	≥30.1	≤14.1	14.2-18.9	19.0	≥21.6
10	≤37.3	37.4-40.1	≥40.2	≤8.8	8.9-22.4	22.5	≥33.2	≤14.4	14.5-19.7	19.8	≥22.7
11	≤37.3	37.4-40.1	≥40.2	≤8.7	8.8-23.6	23.7	≥35.4	≤14.8	14.9-20.5	20.6	≥23.7
12	≤37.6	37.7-40.2	≥40.3	≤8.3	8.4-23.6	23.7	≥35.9	≤15.2	15.3-21.3	21.4	≥24.7
13	≤38.6	38.7-41.0	≥41.1	≤7.7	7.8-22.8	22.9	≥35.0	≤15.7	15.8-22.2	22.3	≥25.6
14	≤39.6	39.7-42.4	≥42.5	≤7.0	7.1-21.3	21.4	≥33.2	≤16.3	16.4-23.0	23.1	≥26.5
15	≤40.6	40.7-43.5	≥43.6	≤6.5	6.6-20.1	20.2	≥31.5	≤16.8	16.9-23.7	23.8	≥27.2
16	≤41.0	41.1-44.0	≥44.1	≤6.4	6.5-20.1	20.2	≥31.6	≤17.4	17.5-24.5	24.6	≥27.9
17	≤41.2	41.3-44.1	≥44.2	≤6.6	6.7-20.9	21.0	≥33.0	≤18.0	18.1-24.9	25.0	≥28.6
>17	≤41.2	41.3-44.2	≥44.3	≤6.9	7.0-22.2	22.3	≥35.1	≤18.5	18.6-24.9	25.0	≥29.3

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

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

FITNESSGRAM®
The Cooper Institute

IN PARTNERSHIP WITH Play60 THE NFL MOVEMENT FOR AN ACTIVE GENERATION

Standards for Healthy Fitness Zone®
Version 10.x
GIRLS

	Aerobic Capacity VO_{2max} (ml/kg/min) PACER, One Mile Run & Walk Test			Percent Body Fat				Body Mass Index			
	NI-Health Risk	NI	HFZ	Very Lean	HFZ	NI	NI-Health Risk	Very Lean	HFZ	NI	NI-Health Risk
5	*Completion of test. Lap count or time standards not recommended.*			≤9.7	9.8-20.8	20.9	≥28.4	≤13.5	13.6-16.8	16.9	≥18.5
6				≤9.8	9.9-20.8	20.9	≥28.4	≤13.4	13.5-17.2	17.3	≥19.2
7				≤10.0	10.1-20.8	20.9	≥28.4	≤13.5	13.6-17.9	18.0	≥20.2
8				≤10.4	10.5-20.8	20.9	≥28.4	≤13.6	13.7-18.6	18.7	≥21.2
9				≤10.9	11.0-22.6	22.7	≥30.8	≤13.9	14.0-19.4	19.5	≥22.4
10	≤37.3	37.4-40.1	≥40.2	≤11.5	11.6-24.3	24.4	≥33.0	≤14.2	14.3-20.3	20.4	≥23.6
11	≤37.3	37.4-40.1	≥40.2	≤12.1	12.2-25.7	25.8	≥34.5	≤14.6	14.7-21.2	21.3	≥24.7
12	≤37.0	37.1-40.0	≥40.1	≤12.6	12.7-26.7	26.8	≥35.5	≤15.1	15.2-22.1	22.2	≥25.8
13	≤36.6	36.7-39.6	≥39.7	≤13.3	13.4-27.7	27.8	≥36.3	≤15.6	15.7-22.9	23.0	≥26.8
14	≤36.3	36.4-39.3	≥39.4	≤13.9	14.0-28.5	28.6	≥36.8	≤16.1	16.2-23.6	23.7	≥27.7
15	≤36.0	36.1-39.0	≥39.1	≤14.5	14.6-29.1	29.2	≥37.1	≤16.6	16.7-24.3	24.4	≥28.5
16	≤35.8	35.9-38.8	≥38.9	≤15.2	15.3-29.7	29.8	≥37.4	≤17.0	17.1-24.8	24.9	≥29.3
17	≤35.7	35.8-38.7	≥38.8	≤15.8	15.9-30.4	30.5	≥37.9	≤17.4	17.5-24.9	25.0	≥30.0
>17	≤35.3	35.4-38.5	≥38.6	≤16.4	16.5-31.3	31.4	≥38.6	≤17.7	17.8-24.9	25.0	≥30.0

	Curl-up # completed	Trunk Lift inches		90⁰ Push-up # completed	Modified Pull-up # completed	Flexed Arm Arm Hang seconds	Back Saver Sit & Reach** inches	Shoulder Stretch
5	≥2	6	12	≥3	≥2	≥2	9	Healthy Fitness Zone = Touching fingertips together behind the back on both right and left sides
6	≥2	6	12	≥3	≥2	≥2	9	
7	≥4	6	12	≥4	≥3	≥3	9	
8	≥6	6	12	≥5	≥4	≥3	9	
9	≥9	6	12	≥6	≥4	≥4	9	
10	≥12	9	12	≥7	≥4	≥4	9	
11	≥15	9	12	≥7	≥4	≥6	10	
12	≥18	9	12	≥7	≥4	≥7	10	
13	≥18	9	12	≥7	≥4	≥8	10	
14	≥18	9	12	≥7	≥4	≥8	10	
15	≥18	9	12	≥7	≥4	≥8	12	
16	≥18	9	12	≥7	≥4	≥8	12	
17	≥18	9	12	≥7	≥4	≥8	12	
17+	≥18	9	12	≥7	≥4	≥8	12	

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

APPENDIX C

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 10
HFZ: ≥ 40.2

Mile	PACER	BMI PACER	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Run	(20M)	(15M)																														
13:00	10	13	53.7	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9	39.0	38.2	37.3	36.5	35.7	34.8	34.0	33.1	32.3	31.5	30.6	29.8
12:45	11	14	53.6	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7	33.9	33.0	32.2	31.4	30.5	29.7
12:29	12	15	53.6	53.2	52.3	51.5	50.6	49.8	49.0	48.1	47.3	46.4	45.6	44.8	43.9	43.1	42.2	41.4	40.6	39.7	38.9	38.0	37.2	36.4	35.5	34.7	33.8	33.0	32.2	31.3	30.5	29.6
11:50	15	19	53.7	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6	29.7
11:10	19	25	54.1	53.6	52.8	52.0	51.1	50.3	49.4	48.6	47.8	46.9	46.1	45.2	44.4	43.6	42.7	41.9	41.0	40.2	39.4	38.5	37.7	36.8	36.0	35.2	34.3	33.5	32.6	31.8	31.0	30.1
10:40	23	30	54.6	54.1	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9	39.0	38.2	37.3	36.5	35.7	34.8	34.0	33.1	32.3	31.5	30.6
10:09	28	36	55.2	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8	33.0	32.1	31.3
9:46	32	42	55.9	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0	36.1	35.3	34.4	33.6	32.8	31.9
9:22	37	48	56.6	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.3	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7
9:04	41	54	57.3	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2	33.3
8:42	46	60	58.1	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7	35.9	35.0	34.2
8:22	51	67	59.0	58.6	57.7	56.9	56.1	55.2	54.4	53.5	52.7	51.9	51.0	50.2	49.3	48.5	47.7	46.8	46.0	45.1	44.3	43.5	42.6	41.8	40.9	40.1	39.3	38.4	37.6	36.7	35.9	35.1
8:04	56	73	59.9	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9
7:46	61	80	60.8	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8
7:25	67	87	61.9	61.5	60.6	59.8	59.0	58.1	57.3	56.4	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0
7:10	72	94	62.8	62.3	61.5	60.7	59.8	59.0	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8
6:52	78	101	63.9	63.4	62.6	61.8	60.9	60.1	59.2	58.4	57.6	56.7	55.9	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8	39.9
6:37	83	108	64.8	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1	49.3	48.4	47.6	46.7	45.9	45.1	44.2	43.4	42.5	41.7	40.9
6:22	89	116	65.8	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9
6:10	94	123	66.6	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.6	42.7
5:58	101	131	67.8	67.4	66.6	65.7	64.9	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9
5:44	106	138	68.5	68.1	67.2	66.4	65.6	64.7	63.9	63.0	62.2	61.4	60.5	59.7	58.8	58.0	57.2	56.3	55.5	54.6	53.8	53.0	52.1	51.3	50.4	49.6	48.8	47.9	47.1	46.2	45.4	44.6
5:31	113	147	69.5	69.1	68.3	67.4	66.6	65.7	64.9	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6
5:23	118	154	70.1	69.7	68.9	68.0	67.2	66.3	65.5	64.7	63.8	63.0	62.1	61.3	60.5	59.6	58.8	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5	48.7	47.9	47.0	46.2
5:14	125	163	70.8	70.4	69.6	68.7	67.9	67.1	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9
5:11	131	171	71.7	71.3	70.5	69.6	68.8	68.0	67.1	66.3	65.4	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8
5:06	138	180	72.0	71.6	70.7	69.9	69.0	68.2	67.4	66.5	65.7	64.8	64.0	63.2	62.3	61.5	60.6	59.8	59.0	58.1	57.3	56.4	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0
4:53	144	188	72.6	72.2	71.4	70.5	69.7	68.9	68.0	67.2	66.3	65.5	64.7	63.8	63.0	62.1	61.3	60.5	59.6	58.8	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5	48.7
4:44	151	197	73.4	73.0	72.1	71.3	70.5	69.6	68.8	67.9	67.1	66.3	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5	53.7	52.8	52.0	51.2	50.3	49.5
4:37	157	206	74.0	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1
4:27	165	216	74.9	74.5	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9
4:20	171	224	75.5	75.1	74.3	73.4	72.6	71.8	70.9	70.1	69.2	68.4	67.6	66.7	65.9	65.0	64.2	63.4	62.5	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6
4:11	179	234	76.2	75.9	75.1	74.2	73.4	72.5	71.7	70.9	70.0	69.2	68.2	67.5	66.7	65.8	65.0	64.1	63.3	62.5	61.6	60.8	59.9	59.1	58.3	57.4	56.6	55.7	54.9	54.1	53.2	52.4
4:05	185	243	76.9	76.5	75.7	74.8	74.0	73.1	72.3	71.5	70.6	69.8	68.9	68.1	67.3	66.4	65.6	64.7	63.9	63.1	62.2	61.4	60.5	59.7	58.9	58.0	57.2	56.3	55.5	54.7	53.8	53.0
4:00	190	250	77.4	77.0	76.1	75.3	74.4	73.6	72.8	71.9	71.1	70.2	69.4	68.6	67.7	66.9	66.0	65.2	64.4	63.5	62.7	61.8	61.0	60.2	59.3	58.5	57.6	56.8	56.0	55.1	54.3	53.4

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 11
HFZ: ≥ 40.3

Mile	PACER	BMI PACER	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Run	(20M)	(15M)																														
13:00	10	13	53.9	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2	33.2	32.6	31.7	30.8	30.0
12:45	11	14	53.8	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3	42.5	41.7	40.8	40.0	39.1	38.3	37.5	36.6	35.8	34.9	34.1	33.3	32.4	31.6	30.7	29.9
12:29	12	15	53.8	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8	39.9	39.1	38.2	37.4	36.6	35.7	34.9	34.0	33.2	32.4	31.5	30.7	29.8
11:50	15	19	53.9	53.5	52.6	51.8	50.9	50.1	49.3	48.4	47.6	46.7	45.9	45.1	44.2	43.4	42.5	41.7	40.9	40.0	39.2	38.3	37.5	36.7	35.8	35.0	34.1	33.3	32.5	31.6	30.8	29.9
11:10	19	25	54.2	53.9	53.0	52.2	51.3	50.5	49.7	48.8	48.0	47.1	46.3	45.5	44.6	43.8	42.9	42.1	41.2	40.4	39.6	38.7	37.9	37.1	36.2	35.4	34.5	33.7	32.9	32.0	31.2	30.3
10:40	23	30	54.8	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2	33.3	32.5	31.7	30.8
10:09	28	36	55.5	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8	39.9	39.1	38.2	37.4	36.6	35.7	34.9	34.0	33.2	32.4	31.5
9:46	32	42	56.1	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8	33.0	32.1
9:22	37	48	56.8	56.4	55.6	54.7	53.9	53.1	52.2	51.4	50.5	49.7	48.9	48.0	47.2	46.3	45.5	44.7	43.8	43.0	42.1	41.3	40.5	39.6	38.8	37.9	37.1	36.3	35.4	34.6	33.7	32.9
9:04	41	54	57.5	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5	48.7	47.8	47.0	46.1	45.3	44.5	43.6	42.8	41.9	41.1	40.3	39.4	38.6	37.7	36.9	36.1	35.2	34.4	33.5
8:42	46	60	58.4	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5	48.7	47.9	47.0	46.2	45.3	44.5	43.7	42.8	42.0	41.1	40.3	39.5	38.6	37.8	36.9	36.1	35.3	34.4
8:22	51	67	59.2	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0	36.1	35.3
8:04	56	73	60.1	59.6	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0	36.1
7:46	61	80	61.0	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9	42.1	41.2	40.4	39.6	38.7	37.9	37.0
7:25	67	87	62.1	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1	48.2	47.4	46.6	45.7	44.9	44.0	43.2	42.4	41.5	40.7	39.8	39.0	38.2
7:10	72	94	63.0	62.5	61.7	60.9	60.0	59.2	58.3	57.5	56.7	55.8	55.0	54.1	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9	39.0
6:52	78	101	64.1	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1
6:37	83	108	65.0	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1
6:22	89	116	66.0	65.6	64.8	63.9	63.1	62.2	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9	42.1
6:10	94	123	66.8	66.4	65.6	64.7	63.9	63.1	62.2	61.4	60.5	59.7	58.9	58.0	57.2	56.3	55.5	54.7	53.8	53.0	52.1	51.3	50.5	49.6	48.8	47.9	47.1	46.3	45.4	44.6	43.7	42.9
5:58	101	131	68.1	67.6	66.8	66.0	65.1	64.3	63.4	62.6	61.8	60.9	60.1	59.2	58.4	57.6	56.7	55.9	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1
5:44	106	138	68.7	68.3	67.5	66.6	65.8	64.9	64.1	63.3	62.4	61.6	60.7	59.9	59.1	58.2	57.4	56.5	55.7	54.9	54.0	53.2	52.3	51.5	50.7	49.8	49.0	48.1	47.3	46.5	45.6	44.8
5:31	113	147	69.7	69.3	68.5	67.6	66.8	65.9	65.1	64.3	63.4	62.6	61.7	60.9	60.1	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8
5:23	118	154	70.5	69.9	69.1	68.2	67.4	66.6	65.7	64.9	64.0	63.2	62.4	61.5	60.7	59.8	59.0	58.2	57.3	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4
5:14	125	163	71.1	70.6	69.8	69.0	68.1	67.3	66.4	65.6	64.8	63.9	63.1	62.2	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1
5:11	131	171	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
5:06	138	180	72.2	71.8	70.9	70.1	69.2	68.4	67.6	66.7	65.9	65.0	64.2	63.4	62.5	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1	48.2
4:53	144	188	72.8	72.4	71.6	70.7	69.9	69.1	68.2	67.4	66.5	65.7	64.9	64.0	63.2	62.3	61.5	60.7	59.8	59.0	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9
4:44	151	197	73.6	73.2	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7
4:37	157	206	74.2	73.8	73.0	72.1	71.3	70.5	69.6	68.8	67.9	67.1	66.3	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5	53.7	52.8	52.0	51.1	50.3
4:27	165	216	75.1	74.7	73.8	73.0	72.2	71.3	70.5	69.6	68.8	68.0	67.1	66.3	65.4	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2
4:20	171	224	75.7	75.3	74.5	73.6	72.8	72.0	71.1	70.3	69.4	68.6	67.8	66.9	66.1	65.2	64.4	63.6	62.7	61.9	61.0	60.2	59.4	58.5	57.7	56.8	56.0	55.2	54.3	53.5	52.6	51.8
4:11	179	234	76.5	76.1	75.2	74.4	73.6	72.7	71.9	71.1	70.2	69.4	68.5	67.7	66.9	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6
4:05	185	243	77.1	76.7	75.9	75.0	74.2	73.4	72.5	71.7	70.8	70.0	69.2	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2
4:00	190	250	77.6	77.2	76.3	75.5	74.7	73.8	73.0	72.1	71.3	70.5	69.6	68.8	67.9	67.1	66.3	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5	53.7

Numbers to the left of the bold line are in the Healthy Fitness Zone®

(7/30/2016)

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 12
HFZ: ≥ 40.3

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	54.1	53.7	52.9	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.2	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2
12:45	11	14	54.0	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1
12:29	12	15	54.0	53.6	52.7	51.9	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1
11:50	15	19	54.1	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2
11:10	19	25	54.5	54.1	53.2	52.4	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5
10:40	23	30	55.0	54.6	53.7	52.9	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0
10:09	28	36	55.7	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7
9:46	32	42	56.3	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3
9:22	37	48	57.0	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1
9:04	41	54	57.7	57.3	56.4	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.2	35.4	34.6	33.8
8:42	46	60	58.6	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6
8:22	51	67	59.4	59.0	58.2	57.3	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5
8:04	56	73	60.3	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3
7:46	61	80	61.2	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2
7:25	67	87	62.3	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4
7:10	72	94	63.2	62.8	61.9	61.1	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2
6:52	78	101	64.3	63.9	63.0	62.2	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.6	43.7	42.9	42.0	41.2	40.3
6:37	83	108	65.2	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3
6:22	89	116	66.2	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3
6:10	94	123	67.1	66.8	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1
5:53	101	131	68.3	67.8	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3
5:44	106	138	68.9	68.5	67.7	66.8	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0
5:31	113	147	69.9	69.5	68.7	67.8	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0
5:23	118	154	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
5:14	125	163	71.3	70.8	70.0	69.2	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3
5:11	131	171	72.2	71.7	70.9	70.1	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.1	48.2
5:06	138	180	72.4	72.0	71.1	70.3	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5
4:53	144	188	73.1	72.6	71.8	71.0	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1
4:44	151	197	73.8	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9
4:37	157	206	74.5	74.0	73.2	72.4	71.6	70.7	69.9	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5
4:27	165	216	75.3	74.9	74.0	73.2	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4
4:20	171	224	76.0	75.6	74.7	73.9	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.2	65.5	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0
4:11	179	234	76.7	76.3	75.5	74.6	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8
4:05	185	243	77.3	76.9	76.1	75.2	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4
4:00	190	250	77.8	77.4	76.5	75.7	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 13
HFZ: ≥ 41.1

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	54.3	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2	30.4
12:45	11	14	54.3	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9	42.1	41.2	40.4	39.6	38.7	37.9	37.0	36.2	35.4	34.5	33.7	32.8	32.0	31.2	30.3
12:29	12	15	54.2	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8	37.0	36.1	35.3	34.5	33.6	32.8	31.9	31.1	30.3
11:50	15	19	54.3	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8	37.9	37.1	36.1	35.4	34.6	33.7	32.9	32.0	31.2	30.4
11:10	19	25	54.7	54.3	53.4	52.6	51.8	50.9	50.1	49.2	48.4	47.6	46.7	45.9	45.0	44.2	43.4	42.5	41.7	40.8	40.0	39.2	38.3	37.5	36.6	35.8	35.0	34.1	33.3	32.4	31.6	30.8
10:40	23	30	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
10:09	28	36	55.9	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8	37.0	36.1	35.3	34.5	33.6	32.8	31.9
9:46	32	42	56.5	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6
9:22	37	48	57.3	56.8	56.0	55.2	54.3	53.5	52.6	51.8	51.0	50.1	49.3	48.4	47.6	46.8	45.9	45.1	44.2	43.4	42.6	41.7	40.9	40.0	39.2	38.4	37.5	36.7	35.8	35.0	34.2	33.3
9:04	41	54	57.9	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1	48.2	47.4	46.6	45.7	44.9	44.0	43.2	42.4	41.5	40.7	39.8	39.0	38.2	37.3	36.5	35.6	34.8	34.0
8:42	46	60	58.8	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1	43.2	42.4	41.6	40.7	39.9	39.0	38.2	37.4	36.5	35.7	34.8
8:22	51	67	59.6	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7
8:04	56	73	60.5	60.1	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5
7:46	61	80	61.4	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3	42.5	41.7	40.8	40.0	39.1	38.3	37.5
7:25	67	87	62.5	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5	48.7	47.8	47.0	46.1	45.3	44.5	43.6	42.8	41.9	41.1	40.3	39.4	38.6
7:10	72	94	63.4	63.0	62.1	61.3	60.4	59.6	58.8	57.9	57.1	56.2	55.4	54.6	53.7	52.9	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4
6:52	78	101	64.5	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5
6:37	83	108	65.4	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5
6:22	89	116	66.4	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3	42.5
6:10	94	123	67.3	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9	50.0	49.2	48.4	47.5	46.7	45.8	45.0	44.2	43.3
5:53	101	131	68.5	68.1	67.2	66.4	65.5	64.7	63.9	63.0	62.2	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5
5:44	106	138	69.1	68.7	67.9	67.0	66.2	65.4	64.5	63.7	62.8	62.0	61.2	60.3	59.5	58.6	57.8	57.0	56.1	55.3	54.4	53.6	52.8	51.9	51.1	50.2	49.4	48.6	47.7	46.9	46.0	45.2
5:31	113	147	70.1	69.7	68.9	68.0	67.2	66.4	65.5	64.7	63.8	63.0	62.2	61.3	60.5	59.6	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2
5:23	118	154	70.8	70.3	69.5	68.7	67.8	67.0	66.1	65.3	64.5	63.6	62.8	61.9	61.1	60.3	59.4	58.6	57.7	56.9	56.1	55.2	54.4	53.5	52.7	51.9	51.0	50.2	49.3	48.5	47.7	46.8
5:14	125	163	71.5	71.1	70.2	69.4	68.5	67.7	66.9	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5
5:11	131	171	72.4	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1	49.3	48.4
5:06	138	180	72.6	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5	48.7
4:53	144	188	73.3	72.8	72.0	71.2	70.3	69.5	68.6	67.8	67.0	66.1	65.3	64.4	63.6	62.8	61.9	61.1	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3
4:44	151	197	74.0	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1
4:37	157	206	74.7	74.2	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7
4:27	165	216	75.5	75.1	74.3	73.4	72.6	71.7	70.9	70.1	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6
4:20	171	224	76.2	75.7	74.9	74.1	73.2	72.4	71.5	70.7	69.9	69.0	68.2	67.3	66.5	65.7	64.8	64.0	63.1	62.3	61.5	60.6	59.8	58.9	58.1	57.3	56.4	55.6	54.7	53.9	53.1	52.2
4:11	179	234	76.9	76.5	75.7	74.8	74.0	73.2	72.3	71.5	70.6	69.8	69.0	68.1	67.3	66.4	65.6	64.8	63.9	63.1	62.2	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0
4:05	185	243	77.6	77.1	76.3	75.5	74.6	73.8	72.9	72.1	71.3	70.4	69.6	68.7	67.9	67.1	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6
4:00	190	250	78.0	77.6	76.8	75.9	75.1	74.2	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1

Numbers to the left of the bold line are in the Healthy Fitness Zone®

(7/30/2016)

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 15
HFZ: ≥ 43.6

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	54.8	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2	33.3	32.5	31.7	30.8
12:45	11	14	54.7	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3	42.5	41.7	40.8	40.0	39.1	38.3	37.5	36.6	35.8	34.9	34.1	33.3	32.4	31.6	30.7
12:29	12	15	54.6	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.2	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8	39.9	39.1	38.2	37.4	36.6	35.7	34.9	34.0	33.2	32.4	31.6	30.7
11:50	15	19	54.7	54.3	53.5	52.6	51.8	50.9	50.1	49.3	48.4	47.6	46.7	45.9	45.1	44.2	43.4	42.5	41.7	40.9	40.0	39.2	38.3	37.5	36.7	35.8	35.0	34.1	33.3	32.5	31.6	30.8
11:10	19	25	55.1	54.7	53.9	53.0	52.2	51.3	50.5	49.7	48.8	48.0	47.1	46.3	45.5	44.6	43.8	42.9	42.1	41.3	40.4	39.6	38.7	37.9	37.1	36.2	35.4	34.5	33.7	32.9	32.0	31.2
10:40	23	30	55.6	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2	33.3	32.5	31.7
10:09	28	36	56.3	55.9	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8	39.9	39.1	38.2	37.4	36.6	35.7	34.9	34.0	33.2	32.4
9:46	32	42	56.9	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8	33.0
9:22	37	48	57.7	57.3	56.4	55.6	54.7	53.9	53.1	52.2	51.4	50.5	49.7	48.9	48.0	47.2	46.3	45.5	44.7	43.8	43.0	42.1	41.3	40.5	39.6	38.8	37.9	37.1	36.3	35.4	34.6	33.7
9:04	41	54	58.3	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5	48.7	47.8	47.0	46.1	45.3	44.5	43.6	42.8	41.9	41.1	40.3	39.4	38.6	37.7	36.9	36.1	35.2	34.4
8:42	46	60	59.2	58.8	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5	48.7	47.9	47.0	46.2	45.3	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	36.9	36.1	35.3
8:22	51	67	60.1	59.6	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0	36.1
8:04	56	73	60.9	60.5	59.6	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0
7:46	61	80	61.8	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9	42.1	41.2	40.4	39.6	38.7	37.9
7:25	67	87	62.9	62.5	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1	48.2	47.4	46.6	45.7	44.9	44.0	43.2	42.4	41.5	40.7	39.8	39.0
7:10	72	94	63.8	63.4	62.5	61.7	60.9	60.0	59.2	58.3	57.5	56.7	55.8	55.0	54.1	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9
6:52	78	101	64.9	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0
6:37	83	108	65.9	65.4	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9
6:22	89	116	66.9	66.4	65.6	64.8	63.9	63.1	62.1	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.1	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9
6:10	94	123	67.7	67.3	66.4	65.6	64.7	63.9	63.1	62.2	61.4	60.5	59.7	58.9	58.0	57.2	56.3	55.5	54.7	53.8	53.0	52.1	51.3	50.5	49.6	48.8	47.9	47.1	46.3	45.4	44.6	43.7
5:58	101	131	68.9	68.5	67.6	66.8	66.0	65.1	64.3	63.4	62.6	61.8	60.9	60.1	59.2	58.4	57.6	56.7	55.9	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0
5:44	106	138	69.6	69.1	68.3	67.5	66.6	65.8	64.9	64.1	63.2	62.4	61.6	60.7	59.9	59.1	58.2	57.4	56.5	55.7	54.9	54.0	53.2	52.3	51.5	50.7	49.8	49.0	48.1	47.3	46.5	45.6
5:31	113	147	70.6	70.1	69.3	68.5	67.6	66.8	65.9	65.1	64.3	63.4	62.6	61.7	60.9	60.1	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6
5:23	118	154	71.2	70.8	69.9	69.1	68.2	67.4	66.6	65.7	64.9	64.0	63.2	62.4	61.5	60.7	59.8	59.0	58.2	57.3	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2
5:14	125	163	71.9	71.5	70.6	69.8	69.0	68.1	67.3	66.4	65.6	64.8	63.9	63.1	62.2	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0
5:11	131	171	72.8	72.4	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
5:06	138	180	73.0	72.6	71.8	70.9	70.1	69.2	68.4	67.6	66.7	65.9	65.0	64.2	63.4	62.5	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1
4:58	144	188	73.7	73.3	72.4	71.6	70.7	69.9	69.1	68.2	67.4	66.5	65.7	64.9	64.0	63.2	62.3	61.5	60.7	59.8	59.0	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7
4:44	151	197	74.5	74.0	73.2	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5
4:37	157	206	75.1	74.7	73.8	73.0	72.1	71.3	70.5	69.6	68.8	67.9	67.1	66.3	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5	53.7	52.8	52.0	51.1
4:27	165	216	75.9	75.5	74.7	73.8	73.0	72.2	71.3	70.5	69.6	68.8	68.0	67.1	66.3	65.4	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0
4:20	171	224	76.6	76.2	75.3	74.5	73.6	72.8	72.0	71.1	70.3	69.4	68.6	67.8	66.9	66.1	65.2	64.4	63.6	62.7	61.9	61.0	60.2	59.4	58.5	57.7	56.8	56.0	55.2	54.3	53.5	52.6
4:11	179	234	77.4	76.9	76.1	75.3	74.4	73.6	72.7	71.9	71.1	70.2	69.4	68.5	67.7	66.9	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4
4:05	185	243	78.0	77.6	76.7	75.9	75.0	74.2	73.4	72.5	71.7	70.8	70.0	69.2	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0
4:00	190	250	78.4	78.0	77.2	76.3	75.5	74.7	73.8	73.0	72.1	71.3	70.5	69.6	68.8	67.9	67.1	66.3	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 14
HFZ: ≥ 42.5

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	54.6	54.1	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9	39.0	38.2	37.3	36.5	35.7	34.8	34.0	33.1	32.3	31.5	30.6
12:45	11	14	54.5	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7	33.9	33.0	32.2	31.4	30.5
12:29	12	15	54.4	54.0	53.2	52.3	51.5	50.6	49.8	49.0	48.1	47.3	46.4	45.6	44.8	43.9	43.1	42.2	41.4	40.6	39.7	38.9	38.0	37.2	36.4	35.5	34.7	33.8	33.0	32.1	31.3	30.5
11:50	15	19	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
11:10	19	25	54.9	54.5	53.6	52.8	52.0	51.1	50.3	49.4	48.6	47.8	46.9	46.1	45.2	44.4	43.6	42.7	41.9	41.0	40.2	39.4	38.5	37.7	36.8	36.0	35.2	34.3	33.5	32.6	31.8	31.0
10:40	23	30	55.4	55.0	54.1	53.3	52.5	51.6	50.8	49.9	49.1	48.3	47.4	46.6	45.7	44.9	44.1	43.2	42.4	41.5	40.7	39.9	39.0	38.2	37.3	36.5	35.7	34.8	34.0	33.1	32.3	31.5
10:09	28	36	56.1	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8	33.0	32.1
9:46	32	42	56.7	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.4	44.5	43.7	42.8	42.0	41.2	40.3	39.5	38.6	37.8	37.0	36.1	35.3	34.4	33.6	32.8
9:22	37	48	57.5	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5
9:04	41	54	58.1	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9	35.0	34.2
8:42	46	60	59.0	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7	35.9	35.0
8:22	51	67	59.8	59.4	58.6	57.7	56.9	56.1	55.2	54.4	53.5	52.7	51.9	51.0	50.2	49.3	48.5	47.7	46.8	46.0	45.1	44.3	43.5	42.6	41.8	40.9	40.1	39.3	38.4	37.6	36.7	35.9
8:04	56	73	60.7	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8
7:46	61	80	61.6	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7
7:25	67	87	62.7	62.3	61.5	60.6	59.8	59.0	58.1	57.3	56.4	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8
7:10	72	94	63.6	63.2	62.3	61.5	60.7	59.8	59.0	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7
6:52	78	101	64.7	64.3	63.4	62.6	61.8	60.9	60.1	59.2	58.4	57.6	56.7	55.9	55.0	54.2	53.4	52.5	51.7	50.8	50.0	49.2	48.3	47.5	46.6	45.8	45.0	44.1	43.3	42.4	41.6	40.8
6:37	83	108	65.6	65.2	64.4	63.6	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1	49.3	48.4	47.6	46.7	45.9	45.1	44.2	43.4	42.6	41.7
6:22	89	116	66.6	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7
6:10	94	123	67.5	67.1	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5
5:58	101	131	68.7	68.3	67.4	66.6	65.7	64.9	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7
5:44	106	138	69.3	68.9	68.1	67.2	66.4	65.6	64.7	63.9	63.0	62.2	61.4	60.5	59.7	58.8	58.0	57.2	56.3	55.5	54.6	53.8	53.0	52.1	51.3	50.4	49.6	48.8	47.9	47.1	46.2	45.4
5:31	113	147	70.4	69.9	69.1	68.3	67.4	66.6	65.7	64.9	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4
5:23	118	154	71.0	70.5	69.7	68.9	68.0	67.2	66.3	65.5	64.7	63.8	63.0	62.1	61.3	60.5	59.6	58.8	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5	48.7	47.9	47.0
5:14	125	163	71.7	71.3	70.4	69.6	68.7	67.9	67.1	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7
5:11	131	171	72.6	72.2	71.3	70.5	69.6	68.8	68.0	67.1	66.3	65.4	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.0	56.2	55.4	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6
5:06	138	180	72.8	72.4	71.6	70.7	69.9	69.0	68.2	67.4	66.5	65.7	64.8	64.0	63.2	62.3	61.5	60.6	59.8	59.0	58.1	57.3	56.4	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9
4:58	144	188	73.5	73.1	72.2	71.4	70.5	69.7	68.9	68.0	67.2	66.3	65.5	64.7	63.8	63.0	62.1	61.3	60.5	59.6	58.8	57.9	57.1	56.3	55.4	54.6	53.7	52.9	52.1	51.2	50.4	49.5
4:44	151	197	74.2	73.8	73.0	72.1	71.2	70.5	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.1	61.2	60.4	59.5	58.7	57.9	57.0	56.2	55.3	54.5	53.7	52.8	52.0	51.1	50.3
4:37	157	206	74.9	74.5	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9
4:27	165	216	75.7	75.3	74.5	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8
4:20	171	224	76.4	76.0	75.1	74.3	73.4	72.6	71.8	70.9	70.1	69.2	68.4	67.6	66.7	65.9	65.0	64.2	63.4	62.5	61.7	60.8	60.0	59.2	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4
4:11	179	234	77.2	76.7	75.9	75.1	74.2	73.4	72.5	71.7	70.9	70.0	69.2	68.3	67.5	66.7	65.8	65.0	64.1	63.3	62.5	61.6	60.8	59.9	59.1	58.3	57.4	56.6	55.7	54.9	54.1	53.2
4:05	185	243	77.8	77.3	76.5	75.7	74.8	74.0	73.1	72.3	71.5	70.6	69.8	68.9	68.1	67.3	66.4	65.6	64.7	63.9	63.1	62.2	61.4	60.5	59.7	58.9	58.0	57.2	56.3	55.5	54.7	53.8
4:00	190	250	78.2	77.8	77.0	76.1	75.3	74.4	73.6	72.8	71.9	71.1	70.2	69.4	68.6	67.7	66.9	66.0	65.2	64.4	63.5	62.7	61.8	61.0	60.2	59.3	58.5	57.6	56.8	56.0	55.1	54.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 16
HFZ: ≥ 44.3

Mile Run	PACER (20M)	PACER (15M)	BMI 6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	55.0	54.6	53.7	52.9	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0
12:45	11	14	54.9	54.5	53.6	52.8	51.9	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.1	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9
12:29	12	15	54.8	54.4	53.6	52.7	51.9	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9
11:50	15	19	54.9	54.5	53.7	52.8	52.0	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0
11:10	19	25	55.3	54.9	54.1	53.2	52.4	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4
10:40	23	30	55.8	55.4	54.6	53.7	52.9	52.0	51.2	50.4	49.6	48.7	47.9	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9
10:09	28	36	56.5	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6
9:46	32	42	57.1	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2
9:22	37	48	57.9	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9
9:04	41	54	58.5	58.1	57.3	56.4	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6
8:42	46	60	59.4	59.0	58.1	57.3	56.5	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5
8:22	51	67	60.3	59.8	59.0	58.2	57.3	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3
8:04	56	73	61.1	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2
7:46	61	80	62.0	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1
7:25	67	87	63.2	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2
7:10	72	94	64.0	63.6	62.8	61.9	61.1	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1
6:52	78	101	65.1	64.7	63.9	63.0	62.2	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2
6:37	83	108	66.1	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1
6:22	89	116	67.1	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1
6:10	94	123	67.9	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0
5:53	101	131	69.1	68.7	67.8	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2
5:44	106	138	69.8	69.3	68.5	67.7	66.8	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8
5:31	113	147	70.8	70.4	69.5	68.7	67.8	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8
5:23	118	154	71.4	71.0	70.1	69.2	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4
5:14	125	163	72.1	71.7	70.8	70.0	69.2	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2
5:11	131	171	73.0	72.6	71.7	70.9	70.1	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.1
5:06	138	180	73.2	72.8	72.0	71.1	70.3	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3
4:53	144	188	73.9	73.5	72.6	71.8	71.0	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0
4:44	151	197	74.7	74.2	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7
4:37	157	206	75.3	74.9	74.0	73.2	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4
4:27	165	216	76.1	75.7	74.9	74.0	73.2	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2
4:20	171	224	76.8	76.4	75.5	74.7	73.9	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9
4:11	179	234	77.6	77.2	76.3	75.5	74.6	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6
4:05	185	243	78.2	77.8	76.9	76.1	75.2	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2
4:00	190	250	78.6	78.2	77.4	76.5	75.7	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Males Age 17
HFZ: ≥ 44.2

Mile Run	PACER (20M)	PACER (15M)	BMI 6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.5	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
12:45	11	14	55.1	54.7	53.8	53.0	52.2	51.3	50.5	49.6	48.8	48.0	47.1	46.3	45.4	44.6	43.8	42.9	42.1	41.2	40.4	39.6	38.7	37.9	37.0	36.2	35.4	34.5	33.7	32.8	32.0	31.2
12:29	12	15	55.0	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8	37.0	36.1	35.3	34.5	33.6	32.8	31.9	31.1
11:50	15	19	55.1	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8	37.9	37.1	36.2	35.4	34.6	33.7	32.9	32.0	31.2
11:10	19	25	55.5	55.1	54.3	53.4	52.6	51.8	50.9	50.1	49.2	48.4	47.6	46.7	45.9	45.0	44.2	43.4	42.5	41.7	40.8	40.0	39.2	38.3	37.5	36.6	35.8	35.0	34.1	33.3	32.4	31.6
10:40	23	30	56.0	55.6	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1
10:09	28	36	56.7	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8	37.0	36.1	35.3	34.5	33.6	32.8
9:46	32	42	57.3	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4
9:22	37	48	58.1	57.7	56.8	56.0	55.2	54.3	53.5	52.6	51.8	51.0	50.1	49.3	48.4	47.6	46.8	45.9	45.1	44.2	43.4	42.6	41.7	40.9	40.0	39.2	38.4	37.5	36.7	35.8	35.0	34.2
9:04	41	54	58.7	58.3	57.5	56.6	55.8	55.0	54.1	53.3	52.4	51.6	50.8	49.9	49.1	48.2	47.4	46.6	45.7	44.9	44.0	43.2	42.4	41.5	40.7	39.8	39.0	38.2	37.3	36.5	35.6	34.8
8:42	46	60	59.6	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1	43.2	42.4	41.6	40.7	39.9	39.0	38.2	37.4	36.5	35.7
8:22	51	67	60.5	60.1	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5
8:04	56	73	61.3	60.9	60.1	59.2	58.4	57.5	56.7	55.9	55.0	54.2	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4
7:46	61	80	62.2	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3	42.5	41.7	40.8	40.0	39.1	38.3
7:25	67	87	63.4	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5	48.7	47.8	47.0	46.1	45.3	44.5	43.6	42.8	41.9	41.1	40.3	39.4
7:10	72	94	64.2	63.8	63.0	62.1	61.3	60.4	59.6	58.8	57.9	57.1	56.2	55.4	54.6	53.7	52.9	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3
6:52	78	101	65.2	64.9	64.1	63.2	62.4	61.5	60.7	59.9	59.0	58.2	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4
6:37	83	108	66.3	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3
6:22	89	116	67.3	66.9	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4	47.5	46.7	45.9	45.0	44.2	43.3
6:10	94	123	68.1	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9	50.0	49.2	48.4	47.6	46.7	45.8	45.0	44.2
5:53	101	131	68.9	68.5	68.1	67.2	66.4	65.5	64.7	63.9	63.0	62.2	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	53.0	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4
5:44	106	138	70.0	69.6	68.7	67.9	67.0	66.2	65.4	64.5	63.7	62.8	62.0	61.2	60.3	59.5	58.6	57.8	57.0	56.1	55.3	54.4	53.6	52.8	51.9	51.1	50.2	49.4	48.6	47.7	46.9	46.0
5:31	113	147	71.0	70.6	69.7	68.9	68.0	67.2	66.4	65.5	64.7	63.8	63.0	62.2	61.3	60.5	59.6	58.8	58.0	57.1	56.3	55.4	54.6	53.8	52.9	52.1	51.2	50.4	49.6	48.7	47.9	47.0
5:23	118	154	71.6	71.2	70.3	69.5	68.7	67.8	67.0	66.1	65.3	64.5	63.6	62.8	61.9	61.1	60.3	59.4	58.6	57.7	56.9	56.1	55.2	54.4	53.5	52.7	51.9	51.0	50.2	49.3	48.5	47.7
5:14	125	163	72.3	71.9	71.1	70.2	69.4	68.5	67.7	66.9	66.0	65.2	64.3	63.5	62.7	61.8	61.0	60.1	59.3	58.5	57.6	56.8	55.9	55.1	54.3	53.4	52.6	51.7	50.9	50.1	49.2	48.4
5:11	131	171	73.2	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9	50.1	49.3
5:06	138	180	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:53	144	188	74.1	73.7	72.8	72.0	71.2	70.3	69.5	68.6	67.8	67.0	66.1	65.3	64.4	63.6	62.8	61.9	61.1	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2
4:44	151	197	74.9	74.5	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.1	65.2	64.4	63.5	62.7	61.9	61.0	60.2	59.3	58.5	57.7	56.8	56.0	55.1	54.3	53.5	52.6	51.8	50.9
4:37	157	206	75.5	75.1	74.2	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6
4:27	165	216	76.4	75.9	75.1	74.3	73.4	72.6	71.7	70.9	70.1	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4
4:20	171	224	77.0	76.6	75.7	74.9	74.1	73.2	72.4	71.5	70.7	69.9	69.0	68.2	67.3	66.5	65.7	64.8	64.0	63.1	62.3	61.5	60.6	59.8	58.9	58.1	57.3	56.4	55.6	54.7	53.9	53.1
4:11	179	234	77.8	77.4	76.5	75.7	74.8	74.0	73.2	72.3	71.5	70.6	69.8	69.0	68.1	67.3	66.4	65.6	64.8	63.9	63.1	62.2	61.4	60.6	59.7	58.9	58.0	57.2	56.4	55.5	54.7	53.8
4:05	185	243	78.4	78.0	77.1	76.3	75.5	74.6	73.8	72.9	72.1	71.3	70.4	69.6	68.7	67.9	67.1	66.2	65.4	64.5	63.7	62.9	62.0	61.2	60.3	59.5	58.7	57.8	57.0	56.1	55.3	54.5
4:00	190	250	78.8	78.4	77.6	76.8	75.9	75.1	74.2	73.4	72.6	71.7	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9

Numbers to the left of the bold line are in the Healthy Fitness Zone®

(7/30/2016)

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 10 & 11
HFZ: ≥ 40.2

Mile Run	PACER (20M)	PACER (15M)	BMI 6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
12:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:30	19	25	52.0	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:44	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.2	47.5	46.7	45.8	45.0	44.1	43.2	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 12
HFZ: ≥ 40.1

Mile Run	PACER (20M)	PACER (15M)	BMI 6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.6	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:30	19	25	52.0	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:44	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.2	47.5	46.7	45.8	45.0	44.1	43.2	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 13
HFZ: ≥ 39.7

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.2	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:10	19	25	52.0	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:44	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0	44.1	43.3	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 14
HFZ: ≥ 39.4

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.3	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:10	19	25	52.0	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:44	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0	44.1	43.3	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 15
HFZ: ≥ 39.1

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:10	19	25	52.0	51.6	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.2	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:34	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0	44.1	43.3	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.1	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 16
HFZ: ≥ 38.9

Mile Run	PACER (20M)	BMI PACER (15M)	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.2	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:10	19	25	52.0	51.6	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:40	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.1	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	43.0	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	94	123	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.2	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:34	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0	44.1	43.3	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.3	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.1	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.3	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.5	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

Estimated Aerobic Capacity (VO2max) Look-Up Table FG v8.6 and v9
Females Age 17
HFZ: ≥ 38.8

Mile Run	PACER (20M)	PACER (15M)	BMI 6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
13:00	10	13	51.6	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5	27.7
12:45	11	14	51.5	51.1	50.3	49.4	48.6	47.7	46.9	46.1	45.2	44.4	43.5	42.7	41.9	41.0	40.2	39.3	38.5	37.7	36.8	36.0	35.1	34.3	33.5	32.6	31.8	30.9	30.1	29.3	28.4	27.6
12:29	12	15	51.5	51.1	50.3	49.4	48.5	47.7	46.9	46.0	45.2	44.3	43.5	42.7	41.8	41.0	40.1	39.3	38.5	37.6	36.8	35.9	35.1	34.3	33.4	32.6	31.7	30.9	30.1	29.2	28.4	27.5
11:50	15	19	51.6	51.2	50.3	49.5	48.6	47.8	47.0	46.1	45.3	44.4	43.6	42.8	41.9	41.1	40.2	39.4	38.6	37.7	36.9	36.0	35.2	34.4	33.5	32.7	31.8	31.0	30.2	29.3	28.5	27.6
11:10	19	25	52.0	51.5	50.7	49.9	49.0	48.2	47.3	46.5	45.7	44.8	44.0	43.1	42.3	41.5	40.6	39.8	38.9	38.1	37.3	36.4	35.6	34.7	33.9	33.1	32.2	31.4	30.5	29.7	28.9	28.0
10:60	23	30	52.5	52.0	51.2	50.4	49.5	48.7	47.8	47.0	46.2	45.3	44.5	43.6	42.8	42.0	41.1	40.3	39.4	38.6	37.8	36.9	36.1	35.2	34.4	33.6	32.7	31.9	31.0	30.2	29.4	28.5
10:09	28	36	53.1	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8	41.0	40.1	39.3	38.4	37.6	36.8	35.9	35.1	34.2	33.4	32.6	31.7	30.9	30.0	29.2
9:46	32	42	53.8	53.3	52.5	51.7	50.8	50.0	49.1	48.3	47.5	46.6	45.8	44.9	44.1	43.3	42.4	41.6	40.7	39.9	39.1	38.2	37.4	36.5	35.7	34.9	34.0	33.2	32.3	31.5	30.7	29.8
9:22	37	48	54.5	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7	44.9	44.0	43.2	42.3	41.5	40.7	39.8	39.0	38.3	37.3	36.5	35.6	34.8	33.9	33.1	32.3	31.4	30.6
9:04	41	54	55.2	54.8	53.9	53.1	52.2	51.4	50.6	49.7	48.9	48.0	47.2	46.4	45.5	44.7	43.8	43.0	42.2	41.3	40.5	39.6	38.8	38.0	37.1	36.3	35.4	34.6	33.8	32.9	32.1	31.2
8:42	46	60	56.0	55.6	54.8	53.9	53.1	52.3	51.4	50.6	49.7	48.9	48.1	47.2	46.4	45.5	44.7	43.9	43.0	42.2	41.3	40.5	39.7	38.8	38.0	37.1	36.3	35.5	34.6	33.8	32.9	32.1
8:22	51	67	56.9	56.5	55.6	54.8	54.0	53.1	52.3	51.4	50.6	49.8	48.9	48.1	47.2	46.4	45.6	44.7	43.9	43.0	42.2	41.4	40.5	39.7	38.8	38.0	37.2	36.3	35.5	34.6	33.8	33.0
8:04	56	73	57.8	57.3	56.5	55.7	54.8	54.0	53.1	52.3	51.5	50.6	49.8	48.9	48.1	47.3	46.4	45.6	44.7	43.9	43.1	42.2	41.4	40.5	39.7	38.9	38.0	37.2	36.3	35.5	34.7	33.8
7:46	61	80	58.7	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8	38.9	38.1	37.2	36.4	35.6	34.7
7:25	67	87	59.8	59.4	58.6	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9	45.1	44.3	43.4	42.6	41.7	40.9	40.1	39.2	38.4	37.5	36.7	35.9
7:10	72	94	60.7	60.2	59.4	58.6	57.7	56.9	56.0	55.2	54.4	53.5	52.7	51.8	51.0	50.2	49.3	48.5	47.6	46.8	46.0	45.1	44.3	43.4	42.6	41.8	40.9	40.1	39.2	38.4	37.6	36.7
6:52	78	101	61.8	61.3	60.5	59.7	58.8	58.0	57.1	56.3	55.5	54.6	53.8	52.9	52.1	51.3	50.4	49.6	48.7	47.9	47.1	46.2	45.4	44.5	43.7	42.9	42.0	41.2	40.3	39.5	38.7	37.8
6:37	83	108	62.7	62.2	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0	47.2	46.3	45.5	44.6	43.8	42.9	42.1	41.3	40.4	39.6	38.8
6:22	89	116	63.7	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.1	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6	39.8
6:10	96	125	64.5	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8	44.0	43.1	42.3	41.4	40.6
5:53	101	131	65.7	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5	42.6	41.8
5:44	106	138	66.4	66.0	65.1	64.3	63.5	62.6	61.8	60.9	60.1	59.3	58.4	57.6	56.7	55.9	55.1	54.2	53.4	52.5	51.7	50.9	50.0	49.2	48.3	47.5	46.7	45.8	45.0	44.1	43.3	42.5
5:31	113	147	67.4	67.0	66.2	65.3	64.5	63.6	62.8	62.0	61.1	60.3	59.4	58.6	57.8	56.9	56.1	55.2	54.4	53.6	52.7	51.9	51.0	50.2	49.4	48.5	47.7	46.8	46.0	45.2	44.3	43.5
5:23	118	154	68.0	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6	45.8	44.9	44.1
5:14	125	163	68.7	68.2	67.5	66.6	65.8	65.0	64.1	63.3	62.4	61.6	60.8	59.9	59.1	58.2	57.4	56.6	55.7	54.9	54.0	53.2	52.4	51.5	50.7	49.8	49.0	48.2	47.3	46.5	45.6	44.8
5:11	131	171	69.6	69.2	68.4	67.5	66.7	65.9	65.0	64.2	63.3	62.5	61.7	60.8	60.0	59.1	58.3	57.5	56.6	55.8	54.9	54.1	53.3	52.4	51.6	50.7	49.9	49.1	48.2	47.4	46.5	45.7
5:06	138	180	69.9	69.5	68.6	67.8	66.9	66.1	65.3	64.4	63.6	62.7	61.9	61.1	60.2	59.4	58.5	57.7	56.9	56.0	55.2	54.3	53.5	52.7	51.8	51.0	50.1	49.3	48.5	47.6	46.8	45.9
4:53	144	188	70.5	70.1	69.3	68.4	67.6	66.8	65.9	65.1	64.2	63.4	62.6	61.7	60.9	60.0	59.2	58.4	57.5	56.7	55.8	55.0	54.2	53.3	52.5	51.6	50.8	50.0	49.1	48.3	47.4	46.6
4:44	151	197	71.3	70.9	70.0	69.2	68.4	67.5	66.7	65.8	65.0	64.2	63.3	62.5	61.6	60.8	60.0	59.1	58.3	57.4	56.6	55.8	54.9	54.1	53.2	52.4	51.6	50.7	49.9	49.0	48.2	47.4
4:37	157	206	71.9	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8	48.0
4:27	165	216	72.8	72.4	71.5	70.7	69.8	69.0	68.2	67.3	66.5	65.6	64.8	64.0	63.1	62.3	61.4	60.6	59.8	58.9	58.1	57.2	56.4	55.6	54.7	53.9	53.0	52.2	51.4	50.5	49.7	48.8
4:20	171	224	73.4	73.0	72.2	71.3	70.5	69.7	68.8	68.0	67.1	66.3	65.5	64.6	63.8	62.9	62.1	61.2	60.4	59.6	58.7	57.9	57.1	56.2	55.4	54.6	53.7	52.9	52.0	51.2	50.3	49.5
4:11	179	234	74.2	73.8	73.0	72.1	71.3	70.4	69.6	68.8	67.9	67.1	66.2	65.4	64.6	63.7	62.9	62.0	61.2	60.4	59.5	58.7	57.8	57.0	56.2	55.3	54.5	53.6	52.8	52.0	51.1	50.3
4:05	185	243	74.8	74.4	73.6	72.7	71.9	71.0	70.2	69.4	68.5	67.7	66.8	66.0	65.2	64.3	63.5	62.6	61.8	61.0	60.1	59.3	58.4	57.6	56.8	55.9	55.1	54.2	53.4	52.6	51.7	50.9
4:00	190	250	75.3	74.9	74.0	73.2	72.3	71.5	70.7	69.8	69.0	68.1	67.3	66.5	65.6	64.8	63.9	63.1	62.3	61.4	60.6	59.7	58.9	58.1	57.2	56.4	55.5	54.7	53.9	53.0	52.2	51.3

Numbers to the left of the bold line are in the Healthy Fitness Zone®

APPENDIX D – FITNESS ASSESSMENT RUBRIC

Fitness Assessment Area	Needs Improvement(0)	Developing Area (1)	Nearing Proficiency (2)	Fitness Proficiency (3)	Advanced Level (4)	Total
Aerobic Capacity	Identified as Needs Improvement – High Risk (1 point)		Identified as Needs Improvement – Some Risk (2 points)	Meets HFZ Standard (4 points)		
Curl Ups	Below 50% of HFZ Standard	Reached 50% of HFZ Standard	Reached 75% of HFZ Standard	Meets HFZ Standard	Exceeds THZ Standard	
Push Ups	Below 50% of HFZ Standard	Reached 50% of HFZ Standard	Reached 75% of HFZ Standard	Meets HFZ Standard	Exceeds HFZ Standard	
Sit and Reach	Below 50% of HFZ Standard	Reached 50% of HFZ target	Reached 75% of HFZ Standard	Meets HFZ target	Achieves maximum score (12)	
Trunk Lift	Below 50% of HFZ Standard	Reached 50% of HFZ target	Reached 75% of HFZ Standard	Meets lower HFZ target	Meets upper HFZ Standard (12)	
					TOTAL SCORE	

CURL UPS									
AGE	BOYS				AGE	GIRLS			
	50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET		50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET
8	3	5	6	>9	8	3	5	6	>9
9	5	7	9	>14	9	5	7	9	>14
10	6	9	12	>18	10	6	9	12	>18
11	8	11	15	>23	11	8	11	15	>23
12	9	14	18	>27	12	9	14	18	>27
13	11	16	21	>32	13	9	14	18	>27
14	12	18	24	>36	14	9	14	18	>27
15	12	18	24	>36	15	9	14	18	>27
16	12	18	24	>36	16	9	14	18	>27
17	12	18	24	>36	17	9	14	18	>27
>17	12	18	24	>36	>17	9	14	18	>27

PUSH UPS									
AGE	BOYS				AGE	GIRLS			
	50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET		50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET
8	3	4	5	>8	8	3	4	5	>8
9	3	5	6	>9	9	3	5	6	>9
10	4	5	7	>11	10	4	5	7	>11
11	4	6	8	>12	11	4	5	7	>11
12	5	8	10	>15	12	4	5	7	>11
13	6	9	12	>18	13	4	5	7	>11
14	7	11	14	>21	14	4	5	7	>11
15	8	12	16	>24	15	4	5	7	>11
16	9	14	18	>27	16	4	5	7	>11
17	9	14	18	>27	17	4	5	7	>11
>17	9	14	18	>27	>17	4	5	7	>11

SIT AND REACH									
AGE	BOYS				AGE	GIRLS			
	50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET		50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET
8	4	6	8	12	8	5	7	9	12
9	4	6	8	12	9	5	7	9	12
10	4	6	8	12	10	5	7	9	12
11	4	6	8	12	11	5	8	10	12
12	4	6	8	12	12	5	8	10	12
13	4	6	8	12	13	5	8	10	12
14	4	6	8	12	14	5	8	10	12
15	4	6	8	12	15	6	9	12	12
16	4	6	8	12	16	6	9	12	12
17	4	6	8	12	17	6	9	12	12
>17	4	6	8	12	>17	6	9	12	12

TRUNK LIFT									
AGE	BOYS				AGE	GIRLS			
	50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET		50% OF TARGET	75% OF TARGET	HFZ TARGET	ADV TARGET
8	3	5	6	12	8	3	5	6	12
9	3	5	6	12	9	3	5	6	12
10	5	7	9	12	10	5	7	9	12
11	5	7	9	12	11	5	7	9	12
12	5	7	9	12	12	5	7	9	12
13	5	7	9	12	13	5	7	9	12
14	5	7	9	12	14	5	7	9	12
15	5	7	9	12	15	5	7	9	12
16	5	7	9	12	16	5	7	9	12
17	5	7	9	12	17	5	7	9	12
>17	5	7	9	12	>17	5	7	9	12