



High School Distance Training

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ABOUT EZ VO2 TRAINING

EZ VO2 Training is a distance running training program designed to maximize performances through the use of targeted training paces.

PHYSIOLOGY

Muscle contraction energy is provided by the breakdown of ATP (adenosine triphosphate) in muscle cells. Faster running speeds require a faster rate at which ATP is broken down. During submaximal running, ATP is regenerated almost entirely by aerobic metabolism (VO2). ATP breakdown will continue beyond maximum VO2 capabilities by anaerobic metabolism (LA). Anaerobic metabolism results in muscle-fatiguing lactic acid. The goal of training is to make the lactic acid production rate less at race speed.

VO2 DEMAND

VO2 demand is the theoretical required rate of VO2 capabilities needed to run at a particular speed. This pace (VO2) is a percentage of best 800, 1600, 3200, or 5K performances. From this pace, all training runs can be planned.

800-1600 Training	
400	145%
800	128%
1600	111%

1600-5K Training	
800	120%
1600	111%
3200	102%
5K	97%

CONSECUTIVE DAYS & CONSISTENT TRAINING

Consecutive Days (CDs) and consistent training will improve running performance, maintenance between seasons, and promote self-ownership of training. Running performance will be improved as the athlete will recover better from hard training sessions. Also, athletes will be able to maintain fitness between seasons. Finally, athletes will be encouraged by seeing the improvements of their workouts and race performances through their consistent training. If an athlete is not able to maximize performance with CDs, then a day off every 1-2 weeks may be necessary.

TYPES OF TRAINING

Critical Threshold (CT) runs are the foundation of distance training. CT runs allow for damaged muscles and tissues to recover as the body circulates oxygen-rich blood without depleting energy stores. CT runs of 30-45 minutes or 4-7 miles are run at 70-75% VO2.

Long Runs (LR) at 75-80% VO2 are for aerobic endurance. The long run allows for the efficient use of the aerobic system, increased capillaries, and additional oxygen-carrying red blood cells are formed. Long runs for Cross-Country and 1600-3200 training are 60-75 minutes or 6-12 miles; long runs for 800-1600 training are 60 minutes or 6-10 miles.

Lactate Threshold (LT) runs are for anaerobic endurance. The LT run is at a pace such that the accumulation of blood lactate is manageable. LT runs begin with a 1-mile warmup, 20 minutes or 2-4 miles at 85-90% VO2, and a 1-mile cooldown.

Lactate Threshold Intervals (LTI) runs are a modification of the LT run. 2-4 miles of 1600-2K repeats are run at 85-90% VO2 with 1-2 minute recoveries.

The *Longest Day (LD)* consists of two training sessions at 75-80% VO2 in a day for aerobic endurance allowing for the efficient use of oxygen, increasing capillaries, and forming additional oxygen-carrying red blood cells.



Progressive Runs (PR) allow for the athlete to progress from the VO2 system to the LA system by increasing the pace throughout the run. Like a race, the athlete needs to increase effort to overcome the increases in pain and discomfort.

VO2 Intervals (VO2) are for aerobic speed. VO2 intervals begin with a 1-2 mile warmup, 2-5 miles of 800-1200 meter intervals at 95-100% VO2 with a 200-400 meter jog recovery, and 1-2 miles cooldown.

Lactic Acid Intervals (LA) are for anaerobic speed. LA intervals begin with a 1-2 mile warmup, 2-4 miles of 300-400 meter intervals at 105-128% VO2 with a 100-400 meter jog recovery, and 1-2 miles cooldown.

Hammer Intervals are faster-paced intervals followed by a return to goal pace. Hammer intervals require the athlete to increase effort to tolerate the increased fatigue. Negative Hammers are where the athlete runs the second half of the interval faster.

Multi Pace Training (MPT) sessions are for varied pace practice. MPT sessions begin with a 1-2 mile warmup, 2-3 miles of 200-1000 meter intervals at 95-128% VO2, and 1-2 miles cooldown.

MPT-Strength

Split 800 600 @ 1600 pace, jog 200, 200 @ 400-800 pace (5:00 rest)
Split 1000 800 @ VO2, jog 200, 200 @ 800 pace (5:00 rest)
Split 1200 1000 @ VO2, jog 400, 200 @ 800 pace (5:00 rest)
4 x (5 x 200) @ 800 pace with decreased rest for each set--2:00, 1:30, 1:00, 0:30
Ladder 1k @ 95% VO2, 600 @ 1600-II or III, 400 @ 800-II or III,
 200 @ 400, 400 @ 800-IV, 600 @ 1600-IV, 1k @ VO2

800, 600, 300, 200, 300, 600, 800

Acceleration 200 @ 1600 pace to 300 @ 400 pace

MPT-Speed

3 x (4 x 200) 1600 pace, 800 pace, 400 pace or 800 pace, 400 pace, all out
Pursuits staggered start 100, cruise 100, all out 100
Split 400 300 @ 800 pace, jog 100, all out 100
150s 150s at 400 pace or all out

Buildups (BU) of 100-150 meters are for neuromuscular turnover. Buildups recruit fast twitch muscle fibers, reinforce running mechanics, and provide strength for the feet, achilles, and calves. Six to eight buildups are run at the end of VO2, LT, and LR workouts. Running buildups barefoot on a soft surface also has additional strengthening benefits.

ANCILLARY TRAINING

Warmups and cooldowns include jogging, stretching, and dynamic exercises.

Stretches: standing hamstring, hurdle stretch, groin, pretzel, arms, IT band, calf/achilles stretch, quads, hip flexors

Dynamic: leg swings (front-back), leg swings (side-side), lunges, carioca, skip (height), skip (distance), straight-leg bounding, A-drill, B-drill, buildups

Strength Training (ST) to provide a functionally balanced infrastructure for running efficiently and fast is done once or twice per week. Upper body exercises include: bench press, military press, lat pulldown, bicep curls, tricep curls. Lower body exercises include: hamstring curls, knee extensions, toe raises, lunges, step-ups, leg presses.

Plyometric Training (PT) is for explosiveness and strength and done once per week. PT will include bounding, box jumps, skipping, water pumps, stars, etc.

Theraband Exercises (TBE) are for strengthening the ligaments and joints of the legs. Theraband exercises include zig-zags, monster slides, and monster walks.

(Core) training is for developing the muscle strength and flexibility of the core.

TRAINING LEVELS and PROGRESSIONS

Continuous improvement is expected throughout each season and from season-to-season. This is accomplished through appropriate progression in volume and/or intensity. With effective recovery, the body is able to overcompensate for the increases in volume and/or intensity resulting in higher levels of performance. It should be noted that current ability usually drops while the body is overloaded.

- Get to Volume
- Get to Pace
- Drop the Recovery

Training levels are grouped according to ability levels and expected level of achievement. Appropriate changes in volume can be seen in the workout schedules.

1600-5K Levels	800-1600 Levels	Description
1-4	1-2	State Champion
5-8	3	All-State
9-12	4-5	Varsity
13-16	6-7	Top Reserve
17-22	8-12	Reserve
23-29		Just Starting

Training level changes will be made after an athlete has raced at the higher level, or has four consecutive weeks of training at the higher level.

Athletes at the lower training levels of a group should run the lower amount of volume. Younger athletes should maintain the lower volume levels. Athletes with more training experience should approach the maximum volume levels.

Working backwards from the end-of-season performance goal, races during the second phase of training will be 4% slower and races during the third phase of training will be 2% slower.

With effective and consistent training, athletes will improve their VO₂. Varsity athletes should improve VO₂ by 1% per season or 2% per year while reserve athletes should improve VO₂ by 2% per season or 4% per year.

RACING

Racing involves increasing levels of pain and discomfort. At some point in every race there comes a time when one must push through the pain and discomfort or back off. To race effectively, one must be prepared to push through.

The most effective racing occurs with even splits. Even splits allow the body to progress through the different energy systems without rapid increases in blood lactate. As the body fatigues, effort must be increased to maintain even pace.

PEAKING

Effective peaking involves maintaining high levels of intensity and volume on the key workouts. When aerobic training is traditionally tapered through lower mileage, increasing intensity, and shortening interval sessions, this creates a stimulus that de-trains that system.

Since effective racing results from pushing through the pain and discomfort, all energy systems need to be progressively trained throughout the season. During the peaking phase, the volume of the CT runs can be lowered and the Long Run can even be eliminated within 2 weeks of the goal race. The peak comes from maintaining the levels of all energy systems while being fully recovered.

NUTRITION

A well-balanced nutrition plan is a must for maximizing performance.

Proper *hydration* includes drinking plenty of water throughout the day. Athletes should drink about half their weight in ounces. Caffeine should be avoided as it inhibits iron absorption and is a dehydrator.

Carbohydrates are needed to provide the energy demands needed for distance running. This includes breads, cereals, rice, pasta, fruits, and vegetables. Athletes should eat as much fruit and vegetables as possible.

Proteins are needed to build and rebuild tissue that is broken down. This includes lean meats, beans, cottage cheese, eggs. Proteins also help with making hemoglobin (thus influencing the O₂ carrying capacity of blood). Protein supplements are not needed if athletes are getting a proper diet.

Fats are needed for endurance athletes. Since they empty slowly from the stomach, they should be avoided prior to competitions. These include cheeses (hard cheese is preferable), oils, lean meats, nuts. Avoid fats that are not monounsaturated or polyunsaturated.

Foods the day before a competition should be familiar and one should avoid overeating. Foods that include complex carbohydrates should be eaten and drink plenty of water. Avoid caffeine and simple carbohydrates (sugars).

Pre-competition meals should be eaten about 2-4 hours prior. This gives blood glucose and insulin levels a chance to stabilize. Consider a liquid fuel if you can't eat. Balance bars (40-30-30) are also good options. Avoid energy drinks that consist primarily of sucrose or fructose.

INJURIES

Injury prevention and maintenance is primarily through the Athletic Training Program. Athletes should monitor any potential problems and notify the coach anytime they suspect they might have an injury.

Attempts should be made to continue training without causing further injury. This includes lowering total mileage by about 20%, removing quality training until easy runs can be completed without discomfort, and not racing again until at least one quality workout is completed.

ABOUT MATT PARKER

Matt Parker has 9 years experience as a boys head cross-country coach in Indiana. He has coached at Warsaw (1999), Fort Wayne Snider (2000-2005), and Fort Wayne Northrop (2007-2008). His athletes have combined for 35 All-Conference performances and 21 sub-17:00 5K performances. His teams have combined for 6 State Finals appearances with top-10 State finishes in 2004-4th and 2007-8th.

Coach Parker also has 10 years experience as a boys coach in track & field. He was the head coach at Fort Wayne Snider (2001-2005) and an assistant coach at Fort Wayne Elmhurst (1999), and Fort Wayne Northrop (2000, 2007-2009). Currently, Coach Parker is an assistant coach at Leo High School (2014-present). His athletes have combined for 44 sub-5:00 1600 performances. He has coached Conference champions in the 800, 1600, 3200, and 4x800 relay, and State finalists in the 800, 1600, and 4x800 relay.

Coach Parker's Top 5 Performers				
800	1600	3200	4x800	5K
1:53.0(split)	4:18.78	9:42.71	7:49.60	15:38
1:56.54	4:23.64	9:48.16	7:55.09	15:40
1:57.54	4:27.54	9:49.53	8:02.33	16:07
1:57.7(split)	4:29.74	9:54.27	8:03.42	16:14
1:58.2(split)	4:32.64	9:57.72	8:07.96	16:14

Coach Parker is a Math and Computer Programming teacher in Fort Wayne, IN. He holds a BS in Math Education from Indiana State University, a MEd in Education from Indiana Wesleyan University, and a Computer Science minor from Purdue University-Fort Wayne.

CONTACT INFORMATION

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For additional information and resources, visit www.ezVO2Training.com.

DISCLAIMER

The information contained within this book is intended for information purposes. The author is not responsible for any injury resulting from the use of this information, including but not limited to death. Before beginning any exercise program, it is recommended that the reader consult and obtain clearance from a licensed physician.

DISTANCE TRAINING REFERENCES

Road to the Top; Joe Vigil, PhD

Improving Sports Performance in Middle and Long Distance Running;

Joanne L. Fallowfield, PhD and David M. Wilkinson, Eds.

Complete Guide to Track & Field Conditioning: For the Endurance Events in Track & Field;

Scott Christensen

Daniels' Running Formula; Jack Daniels, PhD

Take the Lead; Scott Simmons and Will Freeman

Better Training for Distance Runners; David Martin, PhD and Peter Coe

Run with the Best; Tony Benson and Irv Ray

Winning Running (800-1500); Peter Coe

Peak when it Counts; William Freeman

1600-3200—Early Season (Phases I and II)		
	Phase I (December/January)	Phase II (February/Mid-March)
Monday	LT (85%), BU, ST	VO2 INT (95%), BU
Tuesday	CT, TBE	LR/PR, ST
Wednesday	LR/PR, BU	CT
Thursday	CT	LT (90%), PT
Friday	CT, ST	CT
Saturday	LD	LD, BU
Sunday	CT	CT

Boys 1600-3200—Phases I and II						
Levels	CT	LR/PR	LT	LD	VO2 INT	Miles
1-4	5-7	10-12	1-4-1	12-14	2-3(1)-2	50-60
5-8	4-7	9-12	1-3.5-1	11-13	2-3(1)-2	45-55
9-12	4-6	9-11	1-3.5-1	10-12	2-3(1)-2	40-50
13-16	4-6	8-10	1-3-1	9-11	2-2.5(1)-1	35-40
17-22	3-4	7-8	1-2.5-1	8-9	1-2(1)-1	30-35
23-29	3-4	6-7	1-2.5-1	7-8	1-2(1)-1	25-30

Girls 1600-3200—Phases I and II						
Levels	CT	LR/PR	LT	LD	VO2 INT	Miles
1-4	4-6	8-10	1-3-1	10-12	1-3(1)-1	40-50
5-8	3.5-5	7.5-9.5	1-3-1	9-10	1-3(1)-1	35-45
9-12	3-5	7-9	1-2.5-1	8-10	1-2.5(1)-1	30-40
13-16	3-4.5	6.5-8	1-2.5-1	7-9	1-2.5(1)-1	25-35
17-22	3-4	6-7	1-2-1	7-8	1-2(1)-1	25-30
23-29	2.5-3.5	5-6.5	1-2-1	6-7	1-2(1)-1	20-25

800 meter races are run at 116% VO2 during Phase II.
1600 meter races are run at 107% VO2 during Phase II.
3200 meter races are run at 98% VO2 during Phase II.

1600-3200—General Competition Season—Phase III (April)		
	A Week	B Week
Monday	CT, BU	LT, BU
Tuesday	Meet (4x8, 3200)	Meet (1600, 800 or 4x8, 800)
Wednesday	LR or CT, TBE	LR or CT, TBE
Thursday	LA, ST	VO2, ST
Friday	CT, BU	CT, BU
Saturday	Meet	Meet
Sunday	LR or CT	LR or CT

Boys 1600-3200—Phase III (April)							
Levels	CT	LR	LT	VO2 INT	LA INT	Race	Miles
1-4	5-7	10-12	1-3-1	2-3(1)-2	2-3(3)-2	6	45-55
5-8	4-7	9-12	1-2.5-1	2-3(1)-2	2-3(3)-2	6	40-50
9-12	4-6	9-11	1-2.5-1	2-3(1)-2	2-2.5(2.5)-2	5	35-45
13-16	4-6	8-10	1-2-1	2-2.5(1)-1	1-2(2)-1	5	30-40
17-22	3-4	7-8	1-2-1	1-2(1)-1	1-2(2)-1	4	25-30
23-29	3-4	6-7	1-2-1	1-2(1)-1	1-2(2)-1	4	20-25

Girls 1600-3200—Phase III (April)							
Levels	CT	LR	LT	VO2 INT	LA INT	Race	Miles
1-4	4-6	8-10	1-2.5-1	1-3(1)-1	1-3(3)-1	5	35-45
5-8	3.5-5	7.5-9.5	1-2.5-1	1-3(1)-1	1-2.5(2.5)-1	5	30-40
9-12	3-5	7-9	1-2-1	1-2.5(1)-1	1-2(2)-1	4	25-35
13-16	3-4.5	6.5-8	1-2-1	1-2.5(1)-1	1-2(2)-1	4	20-30
17-22	3-4	6-7	1-1.5-1	1-2-1	1-2-1	3	20-25
23-29	2.5-3.5	5-6.5	1-1.5-1	1-2-1	1-2-1	3	20

800 meter races are run at 118% VO2 during Phase III.
1600 meter races are run at 109% VO2 during Phase III.
3200 meter races are run at 100% VO2 during Phase III.

1600-3200—Specific Competition Season—Phase IV (May-June)		
	Girls	Boys
Monday	CT, BU	VO2, TBE
Tuesday	Meet	CT
Wednesday	LR, BU	CT, BU
Thursday	LT/LA, ST	Meet
Friday	CT	LR, BU
Saturday	VO2, TBE	LT/LA, ST
Sunday	CT	CT

Boys 1600-3200—Phase IV (May-June)							
Levels	CT	LR	LT	VO2 INT	LA INT	Race	Miles
1-4	5-7	10-12	1-3-1	1-3(1)-1	1-3(3)-1	6	40-50
5-8	4-7	9-12	1-2.5-1	1-3(1)-1	1-3(3)-1	6	35-45
9-12	4-6	9-11	1-2.5-1	1-3(1)-1	1-2.5(2.5)-1	5	30-40
13-16	4-6	8-10	1-2-1	1-2.5(1)-1	1-2(2)-1	5	25-35
17-22	3-4	7-8	1-2-1	1-2(1)-1	1-2(2)-1	4	20-25
23-29	3-4	6-7	1-2-1	1-2(1)-1	1-2(2)-1	4	20

Girls 1600-3200—Phase IV (May-June)							
Levels	CT	LR	LT	VO2 INT	LA INT	Race	Miles
1-4	4-6	8-10	1-2.5-1	1-3(1)-1	1-3(3)-1	5	35-40
5-8	3.5-5	7.5-9.5	1-2.5-1	1-3(1)-1	1-2.5(2.5)-1	5	30-35
9-12	3-5	7-9	1-2-1	1-2.5(1)-1	1-2(2)-1	4	25-30
13-16	3-4.5	6.5-8	1-2-1	1-2.5(1)-1	1-2(2)-1	4	20-35
17-22	3-4	6-7	1-1.5-1	1-2-1	1-2-1	3	20
23-29	2.5-3.5	5-6.5	1-1.5-1	1-2-1	1-2-1	3	20

800 meter races are run at 120% VO2 during Phase IV.
1600 meter races are run at 111% VO2 during Phase IV.
3200 meter races are run at 102% VO2 during Phase IV.

800-1600—Early Season (Phases I and II)		
	Phase I (December/January)	Phase II (February/Mid-March)
Monday	LT (85%), BU, ST	VO2 INT (95%), BU
Tuesday	CT, TBE	LR/PR, ST
Wednesday	LR/PR, BU	CT
Thursday	CT	LA INT (107%), PT
Friday	CT, ST	CT
Saturday	LD	LT (90%), BU, ST
Sunday	CT or Off	CT or Off

Boys 800-1600—Phases I and II							
Levels	CT	LR	LT	LD	VO2 INT	LA INT	Miles
1-2	4-6	9-10	1-3.5-1	12	2-3(1)-2	2-3(3)-2	40-50
3	4-6	9	1-3-1	12	2-3(1)-2	2-3(3)-2	40-45
4-5	4-6	9	1-3-1	11	2-2.5(1)-2	2-2.5(2.5)-2	35-40
6-7	4-5	8	1-3-1	10	1-2.5(1)-1	1-2.5(2.5)-1	30-35
8-12	3-4	7-8	1-2.5-1	8	1-2(.5)-1	1-2(2)-1	25-30

Girls 800-1600—Phases I and II							
Levels	CT	LR	LT	LD	VO2 INT	LA INT	Miles
1-2	4-5	8	1-3-1	10	1-2.5(1)-1	1-3(3)-1	35-40
3	3.5-4.5	7-8	1-2.5-1	9	1-2.5(1)-1	1-3(3)-1	30-35
4-5	3-4	7	1-2.5-1	8	1-2(1)-1	1-2.5(2.5)-1	25-30
6-7	3-3.5	6.5-7	1-2-1	7	1-2(1)-1	1-2(2)-1	20-25
8-12	3	6	1-2-1	6	1-2(.5)-1	1-2(2)-1	20

800 meter races are run at 122% VO2 during Phase II.
1600 meter races are run at 107% VO2 during Phase II.

800-1600—General Competition Season (April)		
	A Week	B Week
Monday	LT, BU	MPT
Tuesday	Meet (4x8, 800 or 1600, 800)	Meet (4x8, 3200 or 1600, 3200)
Wednesday	MPT	CT
Thursday	VO2	LA
Friday	CT, BU	CT, BU
Saturday	Meet	Meet
Sunday	LR or CT	LR or CT

Boys 800-1600—Phase III (April)							
Levels	CT	LR	LT	VO2	LA / MPT	Race	Miles
1-2	4-6	9-10	1-3-1	1-2.5(1)-1	1-3-1	5	35-45
3	4-6	9	1-2.5-1	1-2.5(1)-1	1-3-1	5	35-40
4-5	4-6	9	1-2.5-1	1-2.5(1)-1	1-2.5-1	5	30-35
6-7	4-5	8	1-2-1	1-2(1)-1	1-2.5-1	4	25-30
8-12	3-4	7-8	1-2-1	1-2(1)-1	1-2-1	4	20-25

Girls 800-1600—Phase III (April)							
Levels	CT	LR	LT	VO2	LA / MPT	Race	Miles
1-2	4-5	8	1-2.5-1	1-2.5(1)-1	1-3-1	5	30-35
3	3.5-4.5	7-8	1-2-1	1-2(1)-1	1-2.5-1	4	25-30
4-5	3-4	7	1-2-1	1-2(1)-1	1-2-1	4	20-25
6-7	3-3.5	6.5-7	1-1.5-1	1-2(1)-1	1-2-1	3	20
8-12	3	6	1-1.5-1	1-2(1)-1	1-2-1	3	20

800 meter races are run at 125% during Phase IV.
 1600 meter races are run at 109% during Phase IV.

800-1600—Specific Competition Season(May-June)		
	Girls	Boys
Monday	CT, BU	LA, TBE
Tuesday	Meet	CT
Wednesday	LR, BU	CT, BU
Thursday	VO2/MPT, ST	Meet
Friday	CT	LR, BU
Saturday	LA, TBE	VO2/MPT, ST
Sunday	CT	CT

Boys 800-1600—Phase IV (May-June)						
Levels	CT	LR	VO2	LA / MPT	Race	Miles
1-2	4-6	9-10	1-2.5(1)-1	1-3-1	5	30-40
3	4-6	9	1-2.5(1)-1	1-3-1	5	30-35
4-5	4-6	9	1-2.5(1)-1	1-2.5-1	5	25-30
6-7	4-5	8	1-2(1)-1	1-2.5-1	4	20-25
8-12	3-4	7-8	1-2(1)-1	1-2-1	4	20

Girls 800-1600—Phase IV (May-June)						
Levels	CT	LR	VO2	LA / MPT	Race	Miles
1-2	4-5	8	1-2.5(1)-1	1-3-1	5	30
3	3.5-4.5	7-8	1-2(1)-1	1-2.5-1	4	25
4-5	3-4	7	1-2(1)-1	1-2-1	4	20
6-7	3-3.5	6.5-7	1-2(1)-1	1-2-1	3	20
8-12	3	6	1-2(1)-1	1-2-1	3	20

800 meter races are run at 128% during Phase IV.
 1600 meter races are run at 111% during Phase IV.

Cross-Country—Early Season (Phase I and II)		
	Phase I (June-July)	Phase II (August)
Monday	LT (85-90%), BU, ST	VO2 (95%) BU
Tuesday	LD, TBE	LD, ST
Wednesday	CT	CT
Thursday	CT, PT	LT (90%), BU
Friday	LR, BU	CT, TBE
Saturday	CT	LR, BU
Sunday	CT	CT

Boys Cross-Country—Phases I and II							
Levels	CT	LR	LT	LD	VO2 INT	Miles-I	Miles-II
1-4	5-7	10-12	1-4-1	12-14	2-4(1.5)-2	50-60	55-65
5-8	4-7	9-12	1-3.5-1	11-13	2-4(1.5)-2	45-55	50-60
9-12	4-6	9-11	1-3.5-1	10-12	2-4(1.5)-2	40-50	45-55
13-16	4-6	8-10	1-3-1	9-11	2-3(1)-1	35-45	40-45
17-22	3-4	7-8	1-2.5-1	8-9	1-3(1)-1	30-35	35
23-29	3-4	6-7	1-2.5-1	7-8	1-3(1)-1	25-30	30

Girls Cross-Country—Phases I and II							
Levels	CT	LR	LT	LD	VO2 INT	Miles-I	Miles-II
1-4	4-6	8-10	1-3-1	10-12	1-4(1)-1	40-50	45-55
5-8	3.5-5	7.5-9.5	1-3-1	9-10	1-3(1)-1	35-45	40-50
9-12	3-5	7-9	1-2.5-1	8-10	1-2.5(1)-1	30-40	35-45
13-16	3-4.5	6.5-8	1-2.5-1	7-9	1-2.5(1)-1	25-35	30-35
17-22	3-4	6-7	1-2-1	7-8	1-2(1)-1	25-30	30
23-29	2.5-3.5	5-6.5	1-2-1	6-7	1-2(1)-1	20-25	25

5K races are at 90% VO2 during Phase I and at 93% VO2 during Phase II.

Cross-Country—Competitive Season (Phase III and IV)		
	Phase III (September)	Phase IV (October/November)
Monday	VO2 INT (97%), BU	VO2 INT (100%), BU
Tuesday	LR, ST	LR, ST
Wednesday	CT, PT	CT, PT
Thursday	LA INT (102%)	LA INT (105%)
Friday	CT, BU	CT, BU
Saturday	Race	Race
Sunday	CT	CT

Boys Cross-Country—Phase III and IV								
Levels	CT	LR	LA INT	VO2 INT-III	VO2 INT-IV	Race	Miles-III	Miles-IV
1-4	5-7	10-12	2-4(4)-2	2-4(1.5)-2	2-3(1)-1	7	55-60	50-55
5-8	4-7	9-12	2-4(4)-2	2-4(1.5)-2	2-3(1)-1	7	50-55	45-50
9-12	4-6	9-11	2-3(3)-2	2-4(1.5)-2	2-3(1)-1	7	45-50	40-45
13-16	4-6	8-10	2-2.5(2.5)-1	2-3(1)-1	1-2.5(1)-1	6	40	35
17-22	3-4	7-8	1-2(2)-1	1-3(1)-1	1-2.5(1)-1	5	35	30
23-29	3-4	6-7	1-2(2)-1	1-3(1)-1	1-2.5(1)-1	4	30	30

Girls Cross-Country—Phase III and IV								
Levels	CT	LR	LA INT	VO2 INT-III	VO2 INT-IV	Race	Miles-III	Miles-IV
1-4	4-6	8-10	1-3(3)-1	1-4(1)-1	1-3(1)-1	7	45-50	40-45
5-8	3.5-5	7.5-9.5	1-3(3)-1	1-3(1)-1	1-3(1)-1	7	40-45	35-40
9-12	3-5	7-9	1-2.5(2.5)-1	1-2.5(1)-1	1-2.5(1)-1	6	35-40	30-35
13-16	3-4.5	6.5-8	1-2(2)-1	1-2.5(1)-1	1-2.5(1)-1	6	30-35	25-30
17-22	3-4	6-7	1-2(2)-1	1-2(1)-1	1-2(1)-1	5	25-30	25
23-29	2.5-3.5	5-6.5	1-2(2)-1	1-2(1)-1	1-2(1)-1	5	25	25

5K races are at 95% VO2 during Phase III and at 97% VO2 during Phase IV.



Boys 1600-5K Training Table										
Level	VO2	800	1600	3200	5K	CT	Long		LT	
1	4:33	1:53	4:06	8:55	14:40	6:30	6:04	5:41	5:21	5:03
2	4:35	1:54	4:08	9:00	14:48	6:34	6:07	5:44	5:24	5:06
3	4:38	1:56	4:11	9:06	14:57	6:38	6:11	5:48	5:27	5:09
4	4:41	1:57	4:13	9:11	15:06	6:42	6:15	5:51	5:31	5:12
5	4:44	1:58	4:16	9:17	15:15	6:46	6:18	5:55	5:34	5:15
6	4:47	1:59	4:18	9:22	15:24	6:50	6:22	5:58	5:37	5:18
7	4:49	2:00	4:21	9:28	15:34	6:54	6:26	6:02	5:41	5:22
8	4:52	2:02	4:23	9:34	15:43	6:58	6:30	6:06	5:44	5:25
9	4:58	2:04	4:29	9:45	16:02	7:06	6:38	6:13	5:51	5:31
10	5:04	2:06	4:34	9:57	16:21	7:15	6:46	6:20	5:58	5:38
11	5:10	2:09	4:39	10:09	16:41	7:23	6:54	6:28	6:05	5:45
12	5:17	2:12	4:45	10:21	17:01	7:32	7:02	6:36	6:12	5:52
13	5:23	2:14	4:51	10:34	17:21	7:41	7:11	6:44	6:20	5:59
14	5:29	2:17	4:57	10:46	17:42	7:51	7:19	6:52	6:28	6:06
15	5:36	2:19	5:01	10:57	18:03	8:00	7:28	7:00	6:31	6:13
16	5:43	2:22	5:08	11:10	18:25	8:10	7:37	7:08	6:38	6:21
17	5:49	2:25	5:14	11:23	18:47	8:19	7:46	7:17	6:46	6:28
18	5:56	2:28	5:20	11:37	19:10	8:29	7:55	7:26	6:55	6:36
19	6:04	2:31	5:26	11:51	19:33	8:40	8:05	7:35	7:03	6:44
20	6:11	2:34	5:33	12:05	19:56	8:50	8:15	7:44	7:11	6:52
21	6:18	2:37	5:40	12:19	20:20	9:01	8:25	7:53	7:20	7:00
22	6:26	2:40	5:46	12:34	20:44	9:12	8:35	8:03	7:29	7:09
23	6:34	2:43	5:53	12:49	21:09	9:23	8:45	8:12	7:38	7:17
24	6:42	2:46	6:00	13:05	21:35	9:34	8:56	8:22	7:47	7:26
25	6:50	2:50	6:08	13:20	22:01	9:45	9:06	8:32	7:56	7:35
26	6:58	2:53	6:15	13:36	22:27	9:57	9:17	8:42	8:06	7:44
27	7:06	2:57	6:22	13:53	22:54	10:09	9:28	8:53	8:16	7:54
28	7:15	3:00	6:30	14:09	23:21	10:21	9:40	9:03	8:26	8:03
29	7:23	3:04	6:38	14:26	23:50	10:34	9:51	9:14	8:36	8:13
VO2%		120%	111%	102%	97%	70%	75%	80%	85%	90%

Boys 1600-5K Training Table–VO2 Intervals

Phase	II					III					IV				
Level	400	800	1000	1200	1600	400	800	1000	1200	1600	400	800	1000	1200	1600
1	1:11	2:23	2:59	3:35	4:47	1:10	2:20	2:55	3:30	4:40	1:08	2:16	2:50	3:24	4:33
2	1:12	2:25	3:01	3:37	4:50	1:10	2:21	2:56	3:32	4:42	1:08	2:17	2:52	3:26	4:35
3	1:13	2:26	3:03	3:39	4:53	1:11	2:22	2:58	3:34	4:45	1:09	2:19	2:54	3:28	4:38
4	1:14	2:28	3:05	3:42	4:56	1:12	2:24	3:00	3:36	4:48	1:10	2:20	2:55	3:31	4:41
5	1:14	2:29	3:07	3:44	4:59	1:12	2:25	3:02	3:38	4:51	1:11	2:22	2:57	3:33	4:44
6	1:15	2:31	3:08	3:46	5:02	1:13	2:27	3:04	3:40	4:54	1:11	2:23	2:59	3:35	4:47
7	1:16	2:32	3:10	3:48	5:05	1:14	2:28	3:05	3:43	4:57	1:12	2:24	3:01	3:37	4:49
8	1:17	2:34	3:12	3:51	5:08	1:15	2:30	3:07	3:45	5:00	1:13	2:26	3:03	3:39	4:52
9	1:18	2:37	3:16	3:55	5:14	1:16	2:33	3:11	3:49	5:06	1:14	2:29	3:06	3:44	4:58
10	1:20	2:40	3:20	4:00	5:20	1:18	2:36	3:15	3:54	5:12	1:16	2:32	3:10	3:48	5:04
11	1:21	2:43	3:24	4:05	5:27	1:19	2:39	3:19	3:59	5:18	1:17	2:35	3:14	3:53	5:10
12	1:23	2:46	3:28	4:10	5:33	1:21	2:42	3:23	4:03	5:25	1:19	2:38	3:18	3:57	5:17
13	1:25	2:50	3:32	4:15		1:22	2:45	3:27	4:08		1:20	2:41	3:22	4:02	
14	1:26	2:53	3:36	4:20		1:24	2:49	3:31	4:13		1:22	2:44	3:26	4:07	
15	1:28	2:57	3:41	4:25		1:26	2:52	3:35	4:18		1:24	2:48	3:30	4:12	
16	1:30	3:00	3:45	4:30		1:27	2:55	3:39	4:23		1:25	2:51	3:34	4:17	
17	1:32	3:04	3:50	4:36		1:29	2:59	3:44	4:29		1:27	2:55	3:38	4:22	
18	1:33	3:07	3:54	4:41		1:31	3:03	3:48	4:34		1:29	2:58	3:43	4:27	
19	1:35	3:11	3:59	4:47		1:33	3:06	3:53	4:40		1:31	3:02	3:47	4:33	
20	1:37	3:15	4:04	4:53		1:35	3:10	3:58	4:45		1:32	3:05	3:52	4:38	
21	1:39	3:19	4:09	4:59		1:37	3:14	4:02	4:51		1:34	3:09	3:56	4:44	
22	1:41	3:23	4:14	5:05		1:39	3:18	4:07	4:57		1:36	3:13	4:01	4:49	
23	1:43	3:27	4:19	5:11		1:41	3:22	4:12	5:03		1:38	3:17	4:06	4:55	
24	1:45	3:31	4:24	5:17		1:43	3:26	4:17	5:09		1:40	3:21	4:11	5:01	
25	1:47	3:35	4:29	5:23		1:45	3:30	4:22	5:15		1:42	3:25	4:16	5:07	
26	1:50	3:40	4:35	5:30		1:47	3:34	4:28	5:21		1:44	3:29	4:21	5:13	
27	1:52	3:44	4:40	5:36		1:49	3:38	4:33	5:28		1:46	3:33	4:26	5:19	
28	1:54	3:49	4:46	5:43		1:51	3:43	4:38	5:34		1:48	3:37	4:31	5:26	
29	1:56	3:53	4:52	5:50		1:53	3:47	4:44	5:41		1:50	3:41	4:37	5:32	
VO2%	95%					97.5%					100%				



Boys 1600-5K Training Table—Intervals								
Phase	CC-III		CC-IV		Track-III		Track-IV	
Level	300	400	300	400	300	400	300	400
1	50.2	66.9	48.8	65.0	43.4	62.6	42.7	61.5
2	50.7	67.6	49.3	65.7	43.8	63.3	43.1	62.1
3	51.2	68.3	49.8	66.3	44.3	63.9	43.5	62.8
4	51.7	69.0	50.3	67.0	44.7	64.5	44.0	63.4
5	52.3	69.7	50.8	67.7	45.2	65.2	44.4	64.0
6	52.8	70.4	51.3	68.4	45.6	65.8	44.9	64.7
7	53.3	71.1	51.8	69.0	46.1	66.5	45.3	65.3
8	53.8	71.8	52.3	69.7	46.5	67.2	45.8	66.0
9	54.9	73.2	53.3	71.1	47.5	68.5	46.7	67.3
10	56.0	74.7	54.4	72.5	48.4	69.9	47.6	68.6
11	57.1	76.2	55.5	74.0	49.4	71.3	48.6	70.0
12	58.3	77.7	56.6	75.5	50.4	72.7	49.5	71.4
13	59.4	79.2	57.7	77.0	51.4	74.2	50.5	72.8
14	60.6	80.8	58.9	78.5	52.4	75.6	51.5	74.3
15	61.8	82.5	60.1	80.1	53.5	77.2	52.6	75.8
16	63.1	84.1	61.3	81.7	54.5	78.7	53.6	77.3
17	64.3	85.8	62.5	83.3	55.6	80.3	54.7	78.8
18	65.6	87.5	63.7	85.0	56.7	81.9	55.8	80.4
19	66.9	89.2	65.0	86.7	57.9	83.5	56.9	82.0
20	68.3	91.0	66.3	88.4	59.0	85.2	58.0	83.7
21	69.6	92.9	67.7	90.2	60.2	86.9	59.2	85.3
22	71.0	94.7	69.0	92.0	61.4	88.6	60.4	87.0
23	72.5	96.6	70.4	93.8	62.6	90.4	61.6	88.8
24	73.9	98.5	71.8	95.7	63.9	92.2	62.8	90.5
25	75.4	100.5	73.2	97.6	65.2	94.1	64.1	92.4
26	76.9	102.5	74.7	99.6	66.5	95.9	65.4	94.2
27	78.4	104.6	76.2	101.6	67.8	97.9	66.7	96.1
28	80.0	106.7	77.7	103.6	69.1	99.8	68.0	98.0
29	81.6	108.8	79.3	105.7	70.5	101.8	69.4	100.0
VO2%	102%		105%		118%	109%	120%	111%

Boys 800-1600 Training Table									
Level	VO2	400	800	1600	CT	Long		LT	
1	4:39	48.1	1:49	4:11	6:38	6:12	5:48	5:28	5:10
2	4:46	49.4	1:52	4:18	6:49	6:22	5:58	5:37	5:18
3	4:54	50.8	1:55	4:25	7:00	6:32	6:08	5:46	5:27
4	5:02	52.1	1:58	4:32	7:11	6:42	6:17	5:55	5:35
5	5:09	53.4	2:01	4:39	7:22	6:53	6:27	6:04	5:44
6	5:20	55.2	2:05	4:48	7:37	7:06	6:40	6:16	5:55
7	5:30	56.9	2:09	4:57	7:51	7:20	6:52	6:28	6:06
8	5:40	58.7	2:13	5:06	8:06	7:33	7:05	6:40	6:18
9	5:53	60.9	2:18	5:18	8:24	7:51	7:21	6:55	6:32
10	6:06	63.1	2:23	5:29	8:42	8:08	7:37	7:10	6:46
11	6:18	65.3	2:28	5:41	9:01	8:25	7:53	7:25	7:00
12	6:31	67.5	2:33	5:52	9:19	8:42	8:09	7:40	7:15
VO2%		145%	128%	111%	70%	75%	80%	85%	90%

Boys 800-1600 Training Table—VO2 Intervals												
Phase	II				III				IV			
Level	400	800	1000	1200	400	800	1000	1200	400	800	1000	1200
1	1:13	2:26	3:03	3:40	1:11	2:23	2:58	3:34	1:09	2:19	2:54	3:29
2	1:15	2:30	3:08	3:46	1:13	2:27	3:03	3:40	1:11	2:23	2:59	3:35
3	1:17	2:34	3:13	3:52	1:15	2:30	3:08	3:46	1:13	2:27	3:04	3:40
4	1:19	2:38	3:18	3:58	1:17	2:34	3:13	3:52	1:15	2:31	3:08	3:46
5	1:21	2:43	3:23	4:04	1:19	2:38	3:18	3:58	1:17	2:34	3:13	3:52
6	1:24	2:48	3:30	4:12	1:22	2:44	3:25	4:06	1:20	2:40	3:20	4:00
7	1:26	2:53	3:37	4:20	1:24	2:49	3:31	4:14	1:22	2:45	3:26	4:07
8	1:29	2:59	3:44	4:28	1:27	2:54	3:38	4:21	1:25	2:50	3:32	4:15
9	1:32	3:05	3:52	4:38	1:30	3:01	3:46	4:31	1:28	2:56	3:40	4:24
10	1:36	3:12	4:00	4:49	1:33	3:07	3:54	4:41	1:31	3:03	3:48	4:34
11	1:39	3:19	4:09	4:59	1:37	3:14	4:02	4:51	1:34	3:09	3:56	4:44
12	1:43	3:26	4:17	5:09	1:40	3:20	4:11	5:01	1:37	3:15	4:04	4:53
VO2%	95%				97.5%				100%			

Boys 800-1600 Training Table—LA Intervals

Phase	II				III				IV			
Level	M-200	200	300	400	M-200	200	300	400	M-200	200	300	400
1	25.1	28.6	42.9	65.2	24.6	28.6	42.9	64.0	24.1	27.3	40.9	62.8
2	25.8	29.4	44.1	67.0	25.2	29.4	44.1	65.8	24.7	28.0	42.0	64.6
3	26.5	30.2	45.2	68.8	25.9	30.2	45.2	67.5	25.4	28.8	43.1	66.3
4	27.2	31.0	46.4	70.6	26.6	31.0	46.4	69.3	26.0	29.5	44.3	68.0
5	27.9	31.7	47.6	72.4	27.3	31.7	47.6	71.0	26.7	30.3	45.4	69.8
6	28.8	32.8	49.2	74.8	28.2	32.8	49.2	73.4	27.6	31.3	46.9	72.1
7	29.7	33.8	50.8	77.2	29.1	33.8	50.8	75.7	28.5	32.3	48.4	74.4
8	30.6	34.9	52.3	79.6	30.0	34.9	52.3	78.1	29.4	33.3	49.9	76.7
9	31.8	36.2	54.3	82.5	31.1	36.2	54.3	81.0	30.5	34.5	51.8	79.6
10	32.9	37.5	56.3	85.5	32.2	37.5	56.3	84.0	31.6	35.8	53.6	82.5
11	34.1	38.8	58.2	88.5	33.4	38.8	58.2	86.9	32.7	37.0	55.5	85.3
12	35.2	40.1	60.2	91.5	34.5	40.1	60.2	89.8	33.8	38.3	57.4	88.2
VO2%	139%	122%		107%	142%	125%		109%	145%	128%		111%

Girls 1600-5K Training Table										
Level	VO2	800	1600	3200	5K	CT	Long		LT	
1	5:16	2:11	4:45	10:20	17:00	7:32	7:02	6:35	6:12	5:51
2	5:22	2:14	4:50	10:33	17:20	7:41	7:10	6:43	6:19	5:58
3	5:29	2:17	4:56	10:45	17:41	7:50	7:19	6:51	6:27	6:06
4	5:35	2:20	5:02	10:58	18:02	7:59	7:27	6:59	6:35	6:13
5	5:42	2:22	5:08	11:11	18:24	8:09	7:36	7:08	6:43	6:20
6	5:49	2:25	5:14	11:25	18:46	8:19	7:46	7:16	6:51	6:28
7	5:56	2:28	5:21	11:39	19:08	8:29	7:55	7:25	6:59	6:36
8	6:03	2:31	5:27	11:53	19:31	8:39	8:04	7:34	7:07	6:44
9	6:10	2:34	5:34	12:07	19:55	8:49	8:14	7:43	7:16	6:52
10	6:18	2:37	5:40	12:21	20:19	9:00	8:24	7:52	7:25	7:00
11	6:25	2:40	5:47	12:36	20:43	9:11	8:34	8:02	7:34	7:08
12	6:33	2:44	5:54	12:51	21:08	9:22	8:44	8:12	7:43	7:17
13	6:41	2:47	6:01	13:07	21:33	9:33	8:55	8:21	7:52	7:26
14	6:49	2:50	6:08	13:23	21:59	9:45	9:06	8:31	8:01	7:35
15	6:57	2:53	6:15	13:35	22:25	9:56	9:17	8:42	8:05	7:44
16	7:06	2:56	6:22	13:52	22:52	10:08	9:28	8:52	8:15	7:53
17	7:14	3:00	6:30	14:08	23:20	10:20	9:39	9:03	8:25	8:02
18	7:23	3:04	6:37	14:25	23:48	10:33	9:51	9:14	8:35	8:12
19	7:32	3:07	6:45	14:43	24:16	10:46	10:02	9:25	8:45	8:22
20	7:41	3:11	6:54	15:00	24:45	10:58	10:14	9:36	8:56	8:32
21	7:50	3:15	7:02	15:18	25:15	11:12	10:27	9:48	9:07	8:42
22	7:59	3:19	7:10	15:37	25:45	11:25	10:39	9:59	9:17	8:53
23	8:09	3:23	7:19	15:56	26:16	11:39	10:52	10:11	9:29	9:03
24	8:19	3:27	7:28	16:15	26:48	11:53	11:05	10:24	9:40	9:14
25	8:29	3:31	7:37	16:34	27:20	12:07	11:19	10:36	9:52	9:25
26	8:39	3:35	7:46	16:54	27:53	12:22	11:32	10:49	10:03	9:37
27	8:49	3:40	7:55	17:14	28:26	12:36	11:46	11:02	10:16	9:48
28	9:00	3:44	8:05	17:35	29:01	12:52	12:00	11:15	10:28	10:00
29	9:11	3:48	8:14	17:56	29:35	13:07	12:14	11:29	10:40	10:12
VO2%	120%	111%	102%	97%	70%	75%	80%	85%	90%	

Girls 1600-5K Training Table—VO2 Intervals

Phase	II					III					IV				
Level	400	800	1000	1200	1600	400	800	1000	1200	1600	400	800	1000	1200	1600
1	1:23	2:46	3:28	4:09	5:33	1:21	2:42	3:22	4:03	5:24	1:19	2:38	3:17	3:57	5:16
2	1:24	2:49	3:32	4:14	5:39	1:22	2:45	3:27	4:08	5:31	1:20	2:41	3:21	4:02	5:22
3	1:26	2:53	3:36	4:20	5:46	1:24	2:48	3:31	4:13	5:37	1:22	2:44	3:25	4:07	5:29
4	1:28	2:56	3:41	4:25	5:53	1:26	2:52	3:35	4:18	5:44	1:24	2:48	3:30	4:11	5:35
5	1:30	3:00	3:45	4:30		1:27	2:55	3:39	4:23		1:25	2:51	3:34	4:17	
6	1:31	3:03	3:49	4:35		1:29	2:59	3:44	4:28		1:27	2:54	3:38	4:22	
7	1:33	3:07	3:54	4:41		1:31	3:02	3:48	4:34		1:29	2:58	3:42	4:27	
8	1:35	3:11	3:59	4:47		1:33	3:06	3:53	4:39		1:30	3:01	3:47	4:32	
9	1:37	3:15	4:04	4:52		1:35	3:10	3:57	4:45		1:32	3:05	3:51	4:38	
10	1:39	3:19	4:08	4:58		1:37	3:14	4:02	4:51		1:34	3:09	3:56	4:43	
11	1:41	3:23	4:13	5:04		1:38	3:17	4:07	4:56		1:36	3:12	4:01	4:49	
12	1:43	3:27	4:18	5:10		1:40	3:21	4:12	5:02		1:38	3:16	4:06	4:55	
13	1:45	3:31	4:24	5:17		1:42	3:25	4:17	5:08		1:40	3:20	4:10	5:01	
14	1:47	3:35	4:29	5:23		1:45	3:30	4:22	5:15		1:42	3:24	4:15	5:07	
15	1:49	3:39	4:34	5:29		1:47	3:34	4:27	5:21		1:44	3:28	4:21	5:13	
16	1:52	3:44	4:40	5:36		1:49	3:38	4:33	5:27		1:46	3:33	4:26	5:19	
17	1:54	3:48	4:45			1:51	3:42	4:38			1:48	3:37	4:31		
18	1:56	3:53	4:51			1:53	3:47	4:44			1:50	3:41	4:37		
19	1:59	3:58	4:57			1:55	3:51	4:49			1:53	3:46	4:42		
20	2:01	4:02	5:03			1:58	3:56	4:55			1:55	3:50	4:48		
21	2:03	4:07	5:09			2:00	4:01	5:01			1:57	3:55	4:54		
22	2:06	4:12	5:15			2:03	4:06	5:07			1:59	3:59	4:59		
23	2:08	4:17	5:22			2:05	4:11	5:13			2:02	4:04	5:05		
24	2:11	4:22	5:28			2:08	4:16	5:20			2:04	4:09	5:12		
25	2:14	4:28	5:35			2:10	4:21	5:26			2:07	4:14	5:18		
26	2:16	4:33	5:41			2:13	4:26	5:32			2:09	4:19	5:24		
27	2:19	4:38	5:48			2:15	4:31	5:39			2:12	4:24	5:31		
28	2:22	4:44	5:55			2:18	4:37	5:46			2:15	4:30	5:37		
29	2:25	4:50	6:02			2:21	4:42	5:53			2:17	4:35	5:44		
VO2%	95%					97.5%					100%				



Girls 1600-5K Training Table—LA Intervals								
Phase	CC-III		CC-IV		Track-III		Track-IV	
Level	300	400	300	400	300	400	300	400
1	0:58	1:17	0:56	1:15	0:50	1:12	0:49	1:11
2	0:59	1:19	0:57	1:16	0:51	1:14	0:50	1:12
3	1:00	1:20	0:58	1:18	0:52	1:15	0:51	1:14
4	1:01	1:22	1:00	1:20	0:53	1:17	0:52	1:15
5	1:03	1:24	1:01	1:21	0:54	1:18	0:53	1:17
6	1:04	1:25	1:02	1:23	0:55	1:20	0:54	1:18
7	1:05	1:27	1:03	1:24	0:56	1:21	0:55	1:20
8	1:06	1:29	1:04	1:26	0:57	1:23	0:56	1:21
9	1:08	1:30	1:06	1:28	0:58	1:25	0:57	1:23
10	1:09	1:32	1:07	1:30	1:00	1:26	0:59	1:25
11	1:10	1:34	1:08	1:31	1:01	1:28	1:00	1:26
12	1:12	1:36	1:10	1:33	1:02	1:30	1:01	1:28
13	1:13	1:38	1:11	1:35	1:03	1:32	1:02	1:30
14	1:15	1:40	1:13	1:37	1:05	1:33	1:04	1:32
15	1:16	1:42	1:14	1:39	1:06	1:35	1:05	1:34
16	1:18	1:44	1:16	1:41	1:07	1:37	1:06	1:35
17	1:19	1:46	1:17	1:43	1:09	1:39	1:07	1:37
18	1:21	1:48	1:19	1:45	1:10	1:41	1:09	1:39
19	1:23	1:50	1:20	1:47	1:11	1:43	1:10	1:41
20	1:24	1:53	1:22	1:49	1:13	1:45	1:12	1:43
21	1:26	1:55	1:24	1:52	1:14	1:47	1:13	1:45
22	1:28	1:57	1:25	1:54	1:16	1:50	1:14	1:48
23	1:29	1:59	1:27	1:56	1:17	1:52	1:16	1:50
24	1:31	2:02	1:29	1:58	1:19	1:54	1:18	1:52
25	1:33	2:04	1:30	2:01	1:20	1:56	1:19	1:54
26	1:35	2:07	1:32	2:03	1:22	1:59	1:21	1:56
27	1:37	2:09	1:34	2:06	1:24	2:01	1:22	1:59
28	1:39	2:12	1:36	2:08	1:25	2:03	1:24	2:01
29	1:41	2:15	1:38	2:11	1:27	2:06	1:26	2:04
VO2%	102%		105%		118%	109%	120%	111%

Girls 800-1600 Training Table									
Level	VO2	400	800	1600	CT	Long		LT	
1	5:27	56.5	2:08	4:55	7:48	7:16	6:49	6:25	6:04
2	5:40	58.8	2:13	5:07	8:06	7:34	7:05	6:40	6:18
3	5:54	61.1	2:18	5:19	8:26	7:52	7:23	6:56	6:33
4	6:08	63.6	2:23	5:32	8:46	8:11	7:40	7:13	6:49
5	6:23	66.1	2:29	5:45	9:07	8:31	7:59	7:30	7:05
6	6:38	68.7	2:35	5:59	9:29	8:51	8:18	7:49	7:22
7	6:54	71.5	2:41	6:13	9:52	9:12	8:38	8:07	7:40
8	7:11	74.3	2:48	6:28	10:16	9:34	8:59	8:27	7:59
9	7:28	77.3	2:55	6:44	10:40	9:57	9:20	8:47	8:18
10	7:46	80.4	3:02	7:00	11:06	10:21	9:42	9:08	8:38
11	8:05	83.6	3:09	7:16	11:32	10:46	10:06	9:30	8:58
12	8:24	87.0	3:17	7:34	12:00	11:12	10:30	9:53	9:20
VO2%		145%	128%	111%	70%	75%	80%	85%	90%

Girls 800-1600 Training Table—VO2 Intervals

Phase	II				III				IV			
Level	400	800	1000	1200	400	800	1000	1200	400	800	1000	1200
1	1:26	2:52	3:35	4:18	1:24	2:48	3:30	4:12	1:21	2:43	3:24	4:05
2	1:29	2:59	3:44	4:29	1:27	2:54	3:38	4:22	1:25	2:50	3:33	4:15
3	1:33	3:06	3:53	4:39	1:30	3:01	3:47	4:32	1:28	2:57	3:41	4:25
4	1:37	3:14	4:02	4:51	1:34	3:09	3:56	4:43	1:32	3:04	3:50	4:36
5	1:40	3:21	4:12	5:02	1:38	3:16	4:05	4:54	1:35	3:11	3:59	4:47
6	1:44	3:29	4:22	5:14	1:42	3:24	4:15	5:06	1:39	3:19	4:09	4:59
7	1:49	3:38	4:32	5:27	1:46	3:32	4:25	5:18	1:43	3:27	4:19	5:10
8	1:53	3:46	4:43		1:50	3:41	4:36		1:47	3:35	4:29	
9	1:58	3:56	4:55		1:54	3:49	4:47		1:52	3:44	4:40	
10	2:02	4:05	5:06		1:59	3:59	4:58		1:56	3:53	4:51	
11	2:07	4:15	5:19		2:04	4:08	5:10		2:01	4:02	5:03	
12	2:12	4:25	5:31		2:09	4:18	5:23		2:06	4:12	5:15	
VO2%	95%				97.5%				100%			

Girls 800-1600 Training Table—LA Intervals

Phase	II				III				IV			
Level	M-200	200	300	400	M-200	200	300	400	M-200	200	300	400
1	29.5	33.6	50.4	76.6	28.8	32.8	49.2	75.2	28.2	32.0	48.0	73.8
2	30.6	34.9	52.4	79.6	30.0	34.1	51.1	78.2	29.4	33.3	49.9	76.8
3	31.9	36.3	54.5	82.8	31.2	35.4	53.2	81.3	30.6	34.6	51.9	79.8
4	33.1	37.8	56.6	86.1	32.4	36.9	55.3	84.5	31.8	36.0	54.0	83.0
5	34.5	39.3	58.9	89.6	33.7	38.3	57.5	87.9	33.0	37.4	56.2	86.3
6	35.9	40.8	61.3	93.1	35.1	39.9	59.8	91.4	34.4	38.9	58.4	89.8
7	37.3	42.5	63.7	96.9	36.5	41.5	62.2	95.1	35.7	40.5	60.7	93.4
8	38.8	44.2	66.3	100.7	38.0	43.1	64.7	98.9	37.2	42.1	63.2	97.1
9	40.3	45.9	68.9	104.8	39.5	44.8	67.3	102.9	38.7	43.8	65.7	101.0
10	41.9	47.8	71.7	109.0	41.1	46.6	70.0	107.0	40.2	45.5	68.3	105.0
11	43.6	49.7	74.5	113.3	42.7	48.5	72.8	111.2	41.8	47.4	71.1	109.2
12	45.4	51.7	77.5	117.9	44.4	50.4	75.7	115.7	43.5	49.3	73.9	113.6
VO2%	139%	122%	107%	142%	125%	109%	145%	128%	111%			