

AN INTRODUCTION TO ENDURANCE RUNNING

George Bunner MBE



IN ASSOCIATION WITH UKA & ENGLAND ATHLETICS

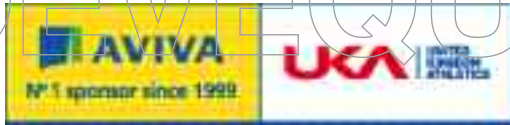
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An Introduction to

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**ENDURANCE
RUNNING**

By

GEORGE BUNNER MBE

In association with UKA and England Athletics

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ABOUT THE AUTHOR



George Bunner MBE

As an athlete

George reached a high point in 1950

when he became

English AAA Junior

880 yards Champion

George Bunner was born in the City of Liverpool in 1932 and despite a difficult start, losing his father at an early age, George became a promising athlete as a member of Liverpool Harriers. He worked his way through night school and college to become a Chartered Electrical Engineer and eventually Managing Director of one of the largest electrical contractors in the North West of England.

As an athlete George reached a high point in 1950 when he became English AAA Junior 880 yards Champion before foreign travel curtailed his running career. George suffered the tragic loss of his wife in a car crash in 1968 that also left him severely injured and a single parent of their two infant sons. In 1971 he married his present wife Sheila and the couple had a baby daughter. Having fought back from his injuries he rekindled his interest in athletics and with some friends decided to form an athletics club in his hometown of Frodsham, Cheshire. Realising that traditional track and field would not suit the primary school aged children in his charge, George set about creating "Sportshall Athletics". Sportshall, as it has now become known, has evolved over the years to become one of the biggest schools sporting programmes in the country.

George had always been a keen middle distance runner and following his accident spent more time organising races than competing in them. In the early 1970's, George revived the Frodsham Hill Races which were to become a major event, attracting runners from all over the country. In its heyday, the course would be lined with crowds and the local traffic would be brought to a standstill.

Amongst other events, George organised a series of innovative children's races which would see competitors compete in relays and hurdle hay bales on the local sports field. George also introduced the Cheshire Track and Field and Cheshire Cross Country Leagues, both of which provided increased competition for the younger competitors whilst allowing mums and dads to compete as well.

George, now recognised as a leading international authority in the development of children's athletics, left the engineering profession in 1992 to work full-time in a voluntary capacity and now at 78 years old, has no plans to retire. He can still be found in his office every day developing his programmes and satisfying his passion for athletics. George received the MBE for services to athletics in 2002.

FOREWORD FROM UKA



The Aviva UKA Academy aims to make it easier for **every** child in the UK to get involved in sport

At the start of summer 2009, the Aviva UKA Academy was launched as a fresh new approach to grassroots sport, designed to give every child in the country the opportunity to get involved in athletics by 2012. It creates a long term legacy for the sport, helping the next generation to stay healthy and active, and hopefully unearth even more champions along the way.

The Aviva UKA Academy aims to **make it easier for every child in the UK to get involved in sport**, create a healthier nation and ultimately to create a new generation of athletes.

The Aviva UKA Academy is also about **rewarding contribution and achievement**, with new award structures designed to make sure children, teachers and coaches all receive recognition for their hard work.

The Aviva UKA Academy aims to **spot and retain talented athletes** of all ages and abilities, and encourage them to take part in athletics, whether at school, club or elite level.

There is something for every child - with six different schemes, new indoor and outdoor competition and awards structures, the Aviva UKA Academy aims to engage and attract children to the sport regardless of age or level of ability. The activity ranges from teacher training tools to inter schools competitions, disability sport recruitment and after-school and summer holiday programmes.

As part of our commitment to the health education of young people, we are very pleased to be associated with this new work and see this publication as a major step forward in the drive to create a healthier nation. We see our investment in the new Aviva UKA Academy Endurance Awards as not just a means of finding the talent of the future, but as a means for providing all children with a positive experience of sport helping them towards healthier lives and developing a life-long love of sport.

Niels de Vos
CEO UKA

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SCHOOLS ENDURANCE PROGRAMME

Historically, mankind has always run. In modern times, however, changes in lifestyles has meant that national participation in endurance running is at a low ebb. Why should we run therefore and what are the benefits of endurance running if done regularly in an organised programme? The following benefits are why youngsters should be encouraged to run.

- Improved cardio-vascular health - reduces risk of cardiovascular disease
- Improved respiratory function - greater use of oxygen
- Improves lung capacity and lowers blood pressure
- Improved muscle mass - fitter, stronger muscles
- Improved bone density - fitter, stronger bones
- Weight loss - weight at expected levels
- Improvement psychologically - feeling of euphoria
- Enjoyment - feeling of achievement
- Can slow and reverse the effects of aging
- Sleep better at night and have more energy in the day
- Emotional effects - runners can feel elated and stimulated
- Fitness levels improve - healthier lifestyle, including diet

Endurance running needs to be started early and progressions - both in the number of sessions, the volume of miles and intensities - should be gradual over a number of years relative to the youngster's age, maturity and ability. The information that follows in this resource shows how, through deploying varied, enjoyable and stimulating team and individual running activities such as Run England 321, relays and assorted team activities youngsters can get involved in endurance running.

Once the foundations of a running programme are in place, the booklet then shows how to develop a systematic, progressive training programme for the emerging athlete taking into account their maturity, training environment, the number of years they have been training but above all the athlete as an individual.

This comprehensive resource shows how a novice or beginner can develop themselves as endurance runners not only to improve their health and well being but also to become good competitors. Endurance running is beneficial, healthy, stimulating, worthwhile, rewarding, easy and cheap to do.

Dave Sunderland
England Athletics National Coach Mentor Endurance Team 2010



THE IMPORTANCE OF REGULAR PHYSICAL ACTIVITY

Evidence demonstrates that frequent physical activity, such as running, can substantially improve the physical fitness and health of children and young people. In particular, there is strong evidence that physical activity will lead to a stronger heart and lungs, improved muscular fitness, stronger bones and more favourable levels of body fat. There is also some evidence that physical activity can reduce symptoms of anxiety and depression and improve academic achievement.

A particular health concern receiving a lot of media interest is the high rate of overweight and obese children and the prediction that these levels will continue to rise in the future. In 2008 17% of boys and 15% of girls were classed as obese, and around three in ten boys and girls were classed as either overweight or obese. Physical activity has an important role to play in helping to address this problem.

The level of activity needed to achieve the different health benefits varies, however, based on the evidence available. The current guideline from the Department of Health is that children aged 5–18 years take part in at least 60 minutes of at least moderate intensity physical activity a day. This activity does not need to be accomplished in one single bout, which may be overwhelming and discouraging to some children, it can be accumulated over the day.

Evidence suggests that more physical activity may be better and that the inclusion of vigorous activity, such as running, could have important additional benefits. Higher intensity sustained activity may be required, for example, to improve cardio-respiratory fitness.

Worryingly, in 2008 only 32% of boys and 24% of girls aged 2–15 years met the 60 minutes a day physical activity guideline, with many therefore missing out on the potential health benefits. Participation levels decrease with age, particularly among girls, with very low levels of activity among girls aged 11–15 years.

Young people are also increasingly spending a significant amount of time being sedentary, which could have important implications for their health, irrespective of the amount of physical activity they do.

Innovative initiatives are therefore needed to encourage young people to be more active and these need to include some that promote participation in vigorous activity. Research suggests if children and young people are to be attracted to activity it needs to be fun, sociable, promote a sense of achievement and help them to keep 'fit and healthy' and in good shape.

Sonia McGeorge

British Heart Foundation National Centre for Physical Activity and Health (BHFNC)

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DAVID MOORCROFT



David Moorcroft

Endurance running can be fun and hugely rewarding for all ages and levels of performance. This booklet focuses on that all important under 13 age group. We have to get it right at this age as positive experiences for youngsters can lay the foundations of a lifelong interest in running and all the benefits that go with it. However, bad or inappropriate experiences can destroy any interest the young person may have.

George Bunner, the founder of Sportshall Athletics, is renowned world-wide for his creativity and his knowledge of what is fun, appropriate and exciting to young people. The advice and ideas in this booklet will be invaluable to teachers, coaches and parents as they explore ways to attract young people into endurance running. They will also, crucially, be trying to ensure that those young runners get the sort of positive experiences that are more likely to encourage them to stay in our sport and enjoy all of the performance and health benefits that running offers.

Endurance isn't just an individual activity and this booklet will give ideas on fun, group activities and how being part of a group or team and sharing experiences, in and out of competition, can lead to forming life-long friendships. Running has been a major part of my life - it was great fun when I was a youngster at school and in my local club. For a part of my adult life I was lucky enough to be a serious international athlete and now, as the years pile on, I still retain the joy in the simple act of running. Even though I am now a slow jogger, running is still very much a part of who I am and I will be forever grateful that my early teachers and coaches followed the sort of principles and ideas that George outlines in this excellent booklet.

David Moorcroft OBE

Former World Record Holder 5000m

CEO UKA 1997-2007

Running has been a major part of my life - it was great fun when I was a youngster at school and in my local club

INTRODUCTION

The purpose of this book is to provide an introduction to the teaching of endurance activities to children from the ages of 7–13. It is designed with the non-specialist in mind and deliberately aims to keep things as simple as possible. It is hoped that this book will enable the non-expert teacher or coach to safely introduce children to endurance activities in an enjoyable and beneficial way.

The object of teaching/coaching at this level should not be to make little champions but rather to engender a love for sport and physical activity with a view to the future.

As regards the more talented youngsters then unfortunately it is seldom that child champions become adult champions and their early experiences can have a huge influence on this. We have a responsibility to protect and nurture our young if we are to provide senior athletes for the future and it is vital that talented youngsters are not destroyed by over-competition and excessive physical wear and tear.

Developing the All-round Athlete

Children's abilities can change considerably at various times of physical development and so it is important that all round fitness is developed. Young athletes' bodies react differently than adult bodies do during sustained activities and we therefore encourage sessions to consist mainly of pace running, relaxed running and breathing pattern to the rhythm of strides.

In my experience I have often encountered children who come into athletics having shown no particular talent at other sports but who are quite capable and happy running over distance. Whilst this book is designed to cater for groups of such children, we would urge those in charge to encourage the development of a broad skill set and avoid early specialisation in endurance.

Recognising Talent

If talented children are specially trained for a particular event, those children can show dramatic improvements which can last for a number of years. This, however, can be due to factors including the large variance in heights and strength associated with physical development. For many reasons, a talented young child of today may not be your champion of the future and once more I will re-iterate the need to be encouraging all-round development. Please remember that when looking after children we should be doing what we can to improve their lives and build their skills for the future and not putting them under unnecessary pressure.

Teaching of Skills

The different physiological abilities needed by someone with a talent for sprinting compared to an endurance athlete can be easily demonstrated by organising a Partner Pursuit Relay as described in the Activities Section where one young athlete will chase another. A sprinter may be able to catch the endurance runner quickly after just a few laps although if he or she fails to do so, the endurance runner will gradually gain the advantage.

Please always remember not to try and introduce programmes beyond the ability of the group or the children will lose interest. Always allow for different rates of learning and differences in the way children learn.

Knowing when and how to progress will enhance learning. Introduce endurance activities with great caution. **Do not overdo it!**

George Bunner MBE

TYPES OF ENDURANCE OR 'SUSTAINED' ACTIVITIES

There are two different forms of endurance or sustained activities in athletics, both of which take place on different kinds of terrain. These are;

Running - which includes:	Walking - which takes place on:
Track	Tracks
Cross country	Roads
Road	
Hill and fell	

Track

Many organised track & field competitions incorporate races up to 1500m in length for athletes in the under 13 age group. There is nothing wrong with young athletes running these distances but it is important not to simulate the intensive training schedules that these events require for older athletes.

Cross Country

Cross country will provide excellent groundwork for cardiovascular fitness and strength endurance for other events, in addition to being an event in itself. Cross country should not be limited to winter as summer runs can also be most enjoyable and provide valuable variations to training sessions.

Cross country can be in a variety of landscapes including urban parkland, open country, woodland or even on the beach. For safety reasons, including the risk of injury, younger children should always be accompanied on cross country by a teacher, coach or other suitably experienced senior athlete.

Relaxed runs with varied effort are recommended so that young athletes can endure the distance and not get distressed through overexertion. Young athletes should try to make use of the terrain and run freely, relaxed and not struggling. The use of runs of varying pace from slow to fast, known more commonly as Fartlek, is a widely used and recognised training exercise.

Although there are plenty of individual competitions for the more talented children, for the more talented children, we recommend that events for groups of children up to the age of 13 are held in the form of team events or relays as opposed to individual championships. More details are given in the competition section of this book. When presented well, cross country can be an enjoyable activity for all. I would advise, however, that children are encouraged to participate, rather than it be made compulsory.

For guidance, the maximum distances recommended for cross country events for young athletes are as follows:

Girls & boys under 13 years & over 11 years	3000 metres
Girls & boys under 11 years	2000 metres
Girls & boys under 10 years	1500 metres

Road Running

Although fine for youths and older adults, excessive running on hard surfaces should be avoided for young athletes who are in growth development because it can cause joint problems, particularly in the knees and the arches of the feet.

Hill and Fell Running

Hill and fell running is a specialist endurance activity which needs to be properly supervised. The Fell Runners' Association would readily give advice and guidance to those wishing to take part. It should also be noted that rambling and hill walking are excellent exercises to promote general fitness and should therefore be encouraged.

Race Walking

At this level we will introduce the basics of race walking although we strongly advise against any specialisation at this age.

General Safety

Cross country, roads and the hills can provide some hazardous situations so those in charge of groups of young people must take full account of safety. For further details on safety and other useful tips for managing running groups please refer to the Run in England website www.runinengland.co.uk

Competition

Young children are full of energy. Programmes in school and club sessions should run to a quick timetable and cater for large teams. There should be lots of events other than endurance races providing many places for the teams to fill thus giving an opportunity for children of all abilities to take part. It is important for all children to contribute to the overall team performance and feel valued. The emphasis at all times must be on team involvement and enjoyment.



Endurance for Other Sports

Reduced focus and poor decision making are clear signs of tiredness in all sports as competitors become fatigued and are unable to participate to their full potential. Rugby, netball, football, hockey and individual sports such as tennis can last well over an hour, including time taken for breaks in play, and sports men and women need to be able to perform and make decisions throughout their match time. Although the participants may only be directly active around 50% of the time, poor endurance conditioning will dramatically impair performance as the time increases.

Consider this example taken from the BBC Sport Academy website:

How far does Wayne Rooney run?

He covers around 11.82 km during a 90 minute match.

How much of this is spent sprinting?

This is all broken down into different categories of speed.

- 4,000m Wayne is walking
- 4,800m jogging
- 1500m running
- 1,000m light sprinting
- 500m sprinting

Interval training sessions are favoured in most sports and are usually performed in the same training environment in which the sport is played. The basic endurance activities, games and tests outlined in this book are appropriate for all sports to integrate into their training to increase the endurance levels of their competitors and ensure their performance levels are not compromised as they enter the final stages of their matches and events.

IMPROVISED TRACKS

Although most people might associate track and field athletics with a traditional 400m track, there are several alternative improvised tracks which can serve as good substitutes for those without access to such facilities. This section will show how to create a number of these using playgrounds, school fields and sports halls.

TRACK TYPE	UKA AWARDS INDIVIDUAL ENDURANCE AWARDS	UKA AWARDS MARATHON ENDURANCE AWARDS	UKA AWARDS TEAM ENDURANCE AWARDS	PACE TRAINING	RELAYS	PURSUIITS	BLEEP TEST RELAYS*	WALKING ACTIVITIES
1) 50m Linear Track	✓	✓	✓	✓	✓	✓		✓
2) 100m Linear Track	✓	✓	✓	✓	✓	✓		✓
3) 100m Circular Track		✓		✓	✓	✓		✓
4) 100m Oval Track		✓		✓	✓	✓		✓
5) 200m Oval Track		✓	✓	✓	✓	✓		✓
6) Sports Hall Tracks	✓	✓		✓	✓	✓	✓	✓
7) 321 Courses		✓			✓			✓
8) 400m Traditional Track		✓	✓	✓	✓	✓		✓

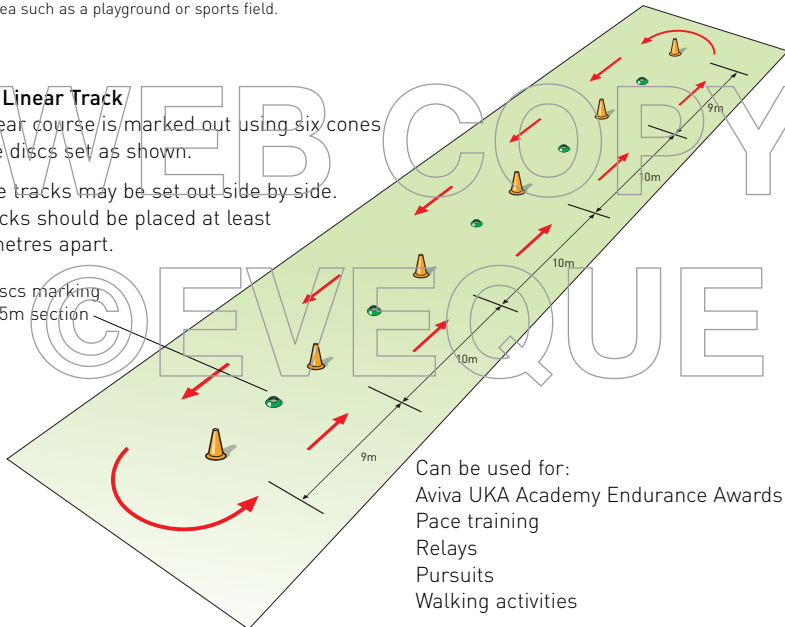
*Note: Bleep Test Relays can be done on any suitable outdoor area such as a playground or sports field.

1) 50m Linear Track

The linear course is marked out using six cones and five discs set as shown.

Multiple tracks may be set out side by side. The tracks should be placed at least three metres apart.

Small discs marking the mid 5m section



- Can be used for:
- Aviva UKA Academy Endurance Awards
 - Pace training
 - Relays
 - Pursuits
 - Walking activities

2) 100m Linear Track

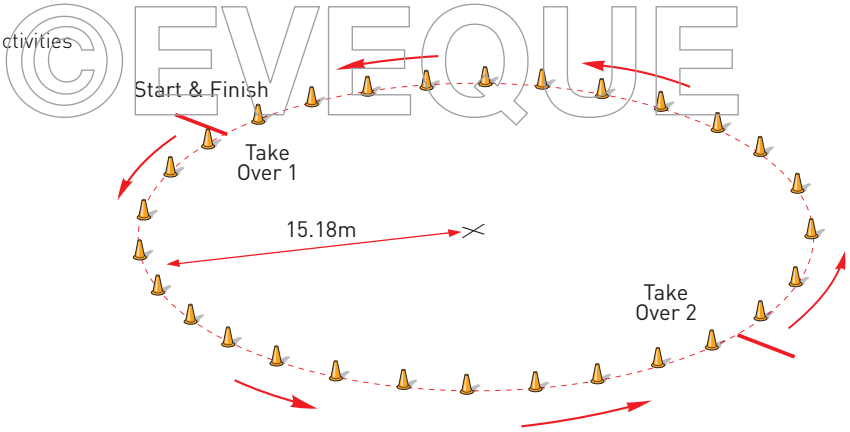
This similar to the 50m Linear Track with further details on page 43.

3) 100m Circular Track

Fits neatly onto a football pitch, large playground or an all weather area.

Can be used for:

- Pace training
- Relays
- Pursuits
- Walking activities

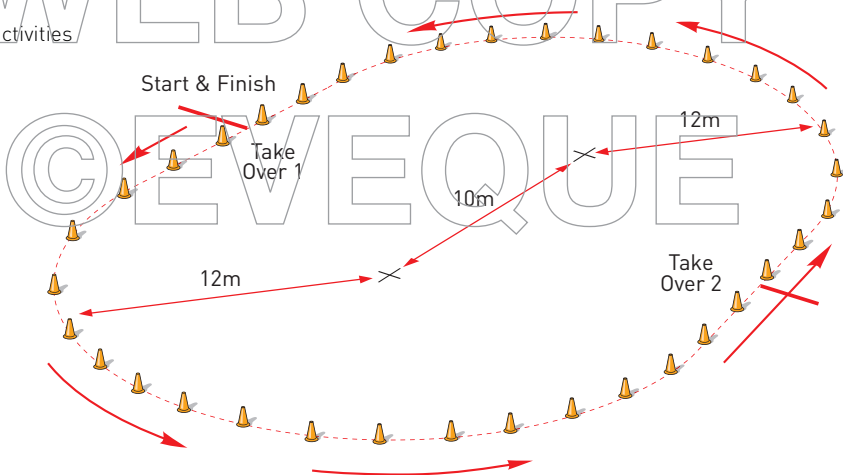


4) 100m Oval Track

Fits neatly onto a football pitch, large playground or an all weather area.

Can be used for:

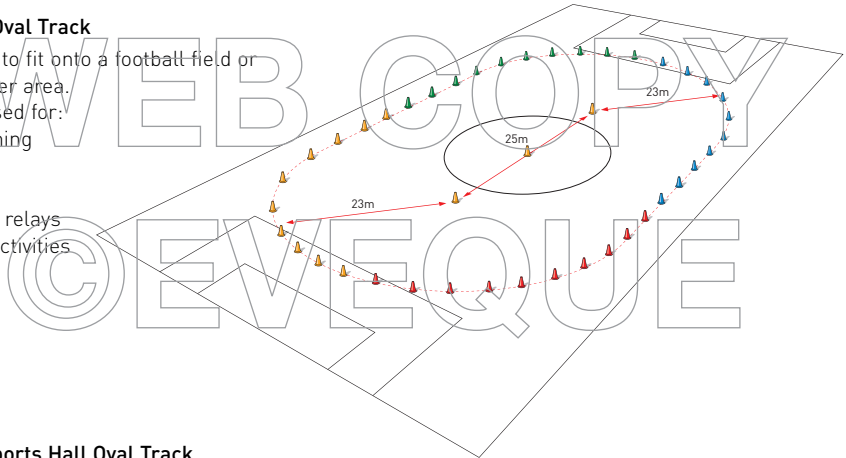
- Pace training
- Relays
- Pursuits
- Walking activities



5) 200m Oval Track

Designed to fit onto a football field or all-weather area.

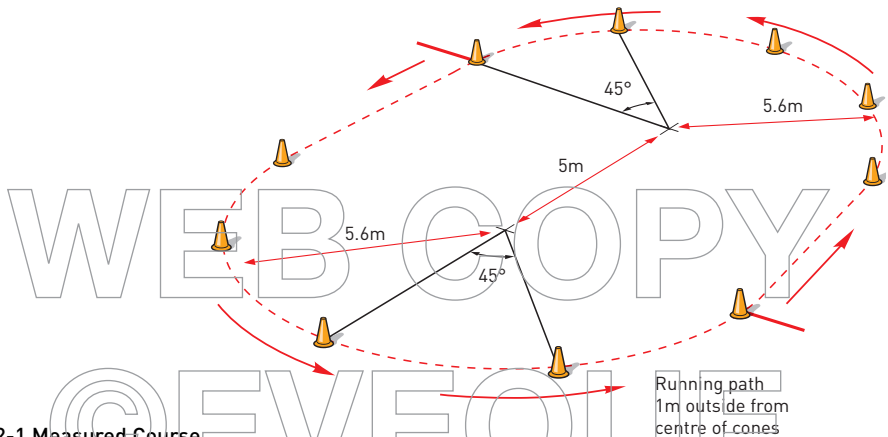
- Can be used for:
- Pace training
 - Relays
 - Pursuits
 - Marathon relays
 - Walking activities



6) 50m Sports Hall Oval Track

The layout of a 50m oval track for use in a sports hall is as follows:

Ten cones are placed as shown below with the 5.6m radius on the bends being measured to the centre of the cones. Such a track will give an effective measurement of approximately 50m per lap for the path of the runner or walker. Positioning the cones as shown will divide the lap for the running path into ten segments each of 5m.



7) 3-2-1 Measured Course

Both UKA and England Athletics wish to encourage schools to create a measured courses as part of the Run in England 3-2-1 project. It is hoped that these routes will be used for regular training runs or walks and for youngsters to keep a record card giving the accumulated distance covered over a period of time. Useful information on how to achieve this can be accessed at the England Athletics endurance running website, www.runinengland.org/321

8) 400m Traditional Track

This will be referred to during the course of this book.

WARMING-UP AND COOLING DOWN

The Importance of Warm-up

It is essential that young athletes learn the importance of a warm-up before beginning any kind of strenuous exercise although in the 8–13 years age group this is more about education and establishing good habits.

The main purpose of a warm-up is to prepare the body and mind for activity by increasing the body and muscle temperature. It should lead to a steady increase in heart rate and respiratory rate which helps increase the blood flow and in turn increases the delivery of oxygen to the muscles. The warm-up process should lead to the body being in a condition that will give maximum efficiency. Many young athletes are under the impression that a warm-up will prevent injury and therefore it is important to explain that whilst a warm-up can help to protect against injury it is still possible to become injured even after warming-up properly.

The warm-up should begin with very gentle exercise performed at a slow pace which should steadily increase during the warm-up period but the amount of effort involved should not leave the athletes out of breath. This gentle exercise could take the form of a game or jogging and can be followed by dynamic stretching, taking the muscles through the full range of movements in a controlled fashion. Movements should be kept fluid and include exercises for both the top and bottom half of the body so that all the major muscle groups are prepared in addition to the heart and lungs.

At this age, the warm-up need not be very long and it is important to ensure that there is enough time for the lesson content. If time is short, a selection of the exercises from the Activities Section can be used, building the intensity from low to high.

Weather Conditions

Weather conditions should always be taken into account. On hot days, overexposure to the sun should be avoided and athletes should be encouraged to drink sufficient fluids and take regular breaks in the shade. On cold wet days, children should be kept moving with periods of standing around and static stretching avoided.

Clothing should also be varied according to conditions. A vest top is best for hot days but on cooler days athletes should keep their shoulders covered by wearing a t-shirt as a good deal of heat can be lost through the shoulders.

Importance of Cool-down

A cool-down period at the end of an activity session allows the heart rate and breathing rate to return to normal. It also allows the return of the blood to the heart in sufficient quantities to rid the muscles of lactic acid (a chemical result of muscular fatigue). If there is no cool-down period immediately after exercise, the blood can pool in the limbs instead of returning to the heart which in turn can lead to them 'feeling heavy' and can cause nausea and dizziness.

The cool-down routine should consist of gentle jogging for about three or four minutes followed by five minutes of static stretching exercises which will help the muscles to relax and prevent soreness and tightness occurring.

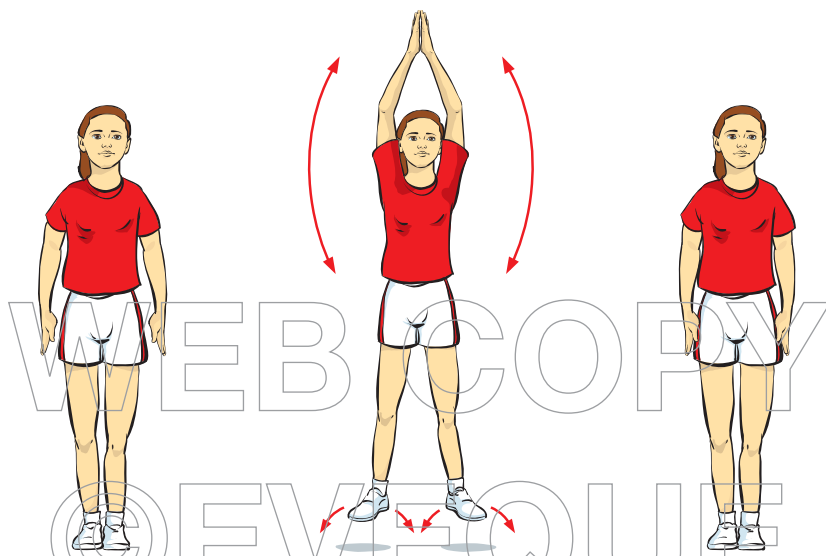
The Body as an Engine

There is an opportunity during coaching sessions to encourage young athletes to understand a little more about how the body works and how it can affect performance.

If we compare the body to an engine, oxygen enters the body via the lungs, is pumped to the muscles via the heart where it is used to burn fuel (from food) to produce energy which is used to power the muscles. It is therefore not only important that athletes take in the correct fuel and have good muscles, they also need a good circulatory and respiratory systems (heart and lungs) to make their bodies efficient.

Being able to change pace and sprint is a very important asset for any future middle distance or cross-country runner and must be addressed in their early programmes. The development of the heart and lungs is an essential element to this.

Many of the exercises performed during warm-ups are not only for the purposes of stretching the limbs but also to develop and practise stretching the rib cage and the muscles surrounding the chest and ribs so that a maximum intake of air can be achieved. This is an area all too often neglected by endurance runners and explaining the reason for doing a particular exercise will help children understand its importance.



There are a number of exercises which are useful including press-ups, arm press-backs and rotations but the exercise shown above is particularly relevant.

Stride jumps with feet apart and then together is performed with the arms being swung in rhythm and the hands clapped above the head. The clap is important to the exercise because the final movement pulls the rib cage up and out.

This exercise can be performed with or without the clap, using very light weights such as a small water bottle held in each hand.

Another beneficial exercise is the raising and lowering of a 1kg or 2kg medicine ball from the chest to over the head.

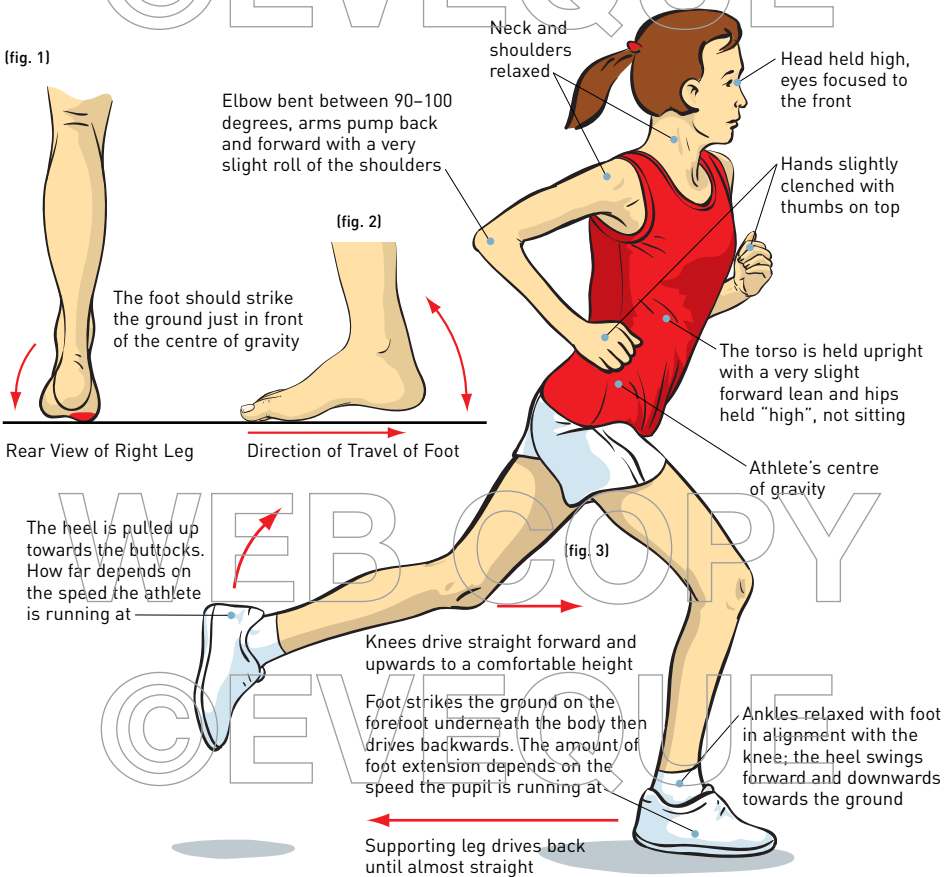
RUNNING ACTION

The Endurance Runner's Action

The running action is a natural skill learned very early on in childhood. However, when you observe any class of children you will immediately notice that no two pupils appear to run identically. Differences in anatomy, height, weight and proportion all affect running action.

There are also "learned" peculiarities that affect the running action such as poor department, development of muscles through other activities, muscular imbalance through injury or illness and lack of exercise.

There are, however, basic fundamental pointers that we should be looking for when aiming to make the running action as efficient as possible (see fig 3).

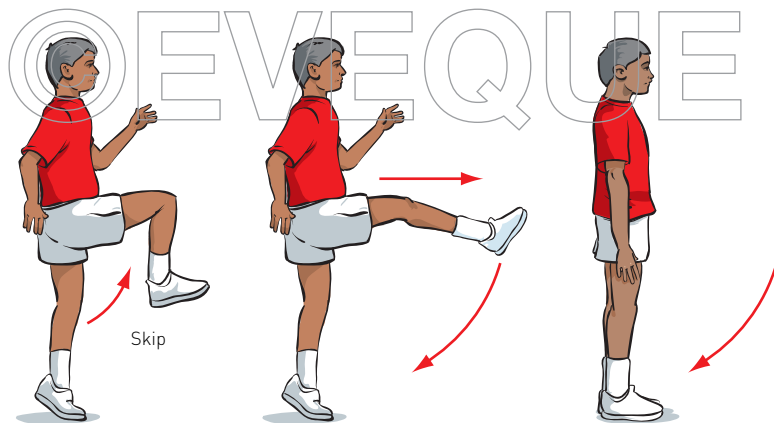


The foot strikes slightly on the outer half of the ball of the foot and rolls across (see fig. 1). At the same time the heel drops to the ground (see fig. 2) and then lifts up as the body moves forward over it and the driving phase begins. As the leg straightens, the heel begins to rise as the foot is pulled clear of the ground.

The author would like to acknowledge that this material was drawn from the work of Richard Simmonds.

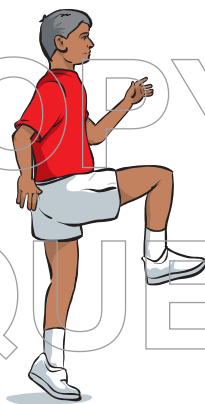
RUNNING DRILLS

Drills are an important part of warm up and provide a fun element to a lesson. After the first parts of a warm-up have been completed correctly it is safe to move on to running drills in which the athlete specifically prepares his or her body for the demands of an activity session. The drills carried out as part of a warm up routine should reflect the type of movements required to improve running action by giving the participant specific areas on which to focus. Drills help by improving the strength in the muscles associated with a particular part of the running action.



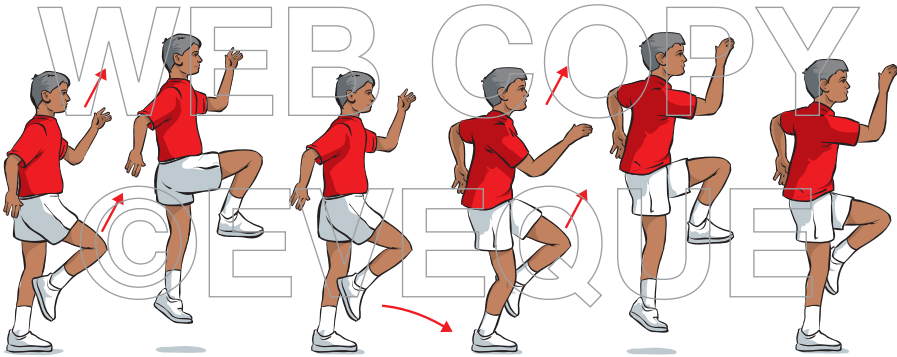
Kick Outs

Start as knee lifts but instead of bringing the foot straight down, “kick” the foot out and away from the body and then bring down and back swiftly under the body. As the knee rises to its high point, do a little skip before dragging the other foot down. It is important to use the opposite arm as a balance.



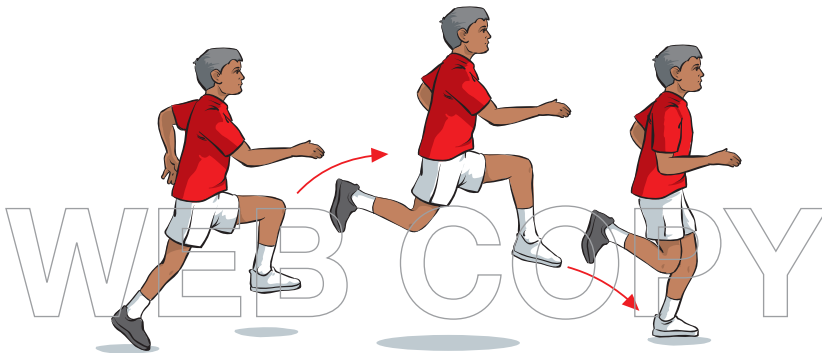
Knee Lifts

Stand tall, lift knee so that the thigh is parallel to the ground keeping the supporting leg as straight as possible. Opposite arm swings up in front. Move slowly forward alternating knees swiftly.



Leaps or High Skips

Leaps or High Skips involve using all the main muscle groups in the legs. The aim is to swing the opposite arm and leg vigorously and gain as much height and distance as possible. The young athlete lands on the same leg and then takes a long step forward before repeating the process.



Bounding

Bounding stretches the hip movement and stride length. This activity combines the techniques and body positions learned from the previous three drills.

Fast Running on the spot is also beneficial.

Presentation

- Either give or show a good example of the movement required
- Only use a short distance in the lessons e.g. 20m to 30m
- Ensure the surface is flat and even e.g. level grass area, all weather pitch, or sports hall
- Make the drills fun but do not show up those who have difficulty with coordination
- Ensure that pupils have adequate footwear with good soles
- Ensure that the exercises are performed correctly. There should be no racing the next person
- Set off in groups of five or six with a walk back; this allows the pupils to recover between each exercise
- Go through each exercise two or three times

ENDURANCE GAMES AND ACTIVITIES

A wide variety of suitable activities for young athletes are offered in publications such as Pacesetter, Aviva Elevating Athletics and England Athletics' Run, Jump, Throw resource. In this section, however, we offer a selected number of games and relays considered particularly relevant to endurance development. Consideration has been given to the utilisation of the facilities available, be it a traditional 400m athletics venue or one of the alternative tracks detailed in Section 2.

The activities included are: Individual Pursuit on a linear track, Team Pursuit on a linear track, Continuous Relays on tracks, games fields or parkland fields, Tag Relay, Team Pursuit, Partner Pursuit, Bleep Test Relay, Orienteering Relays and Games and other ideas such as Rambling, Fartlek etc.

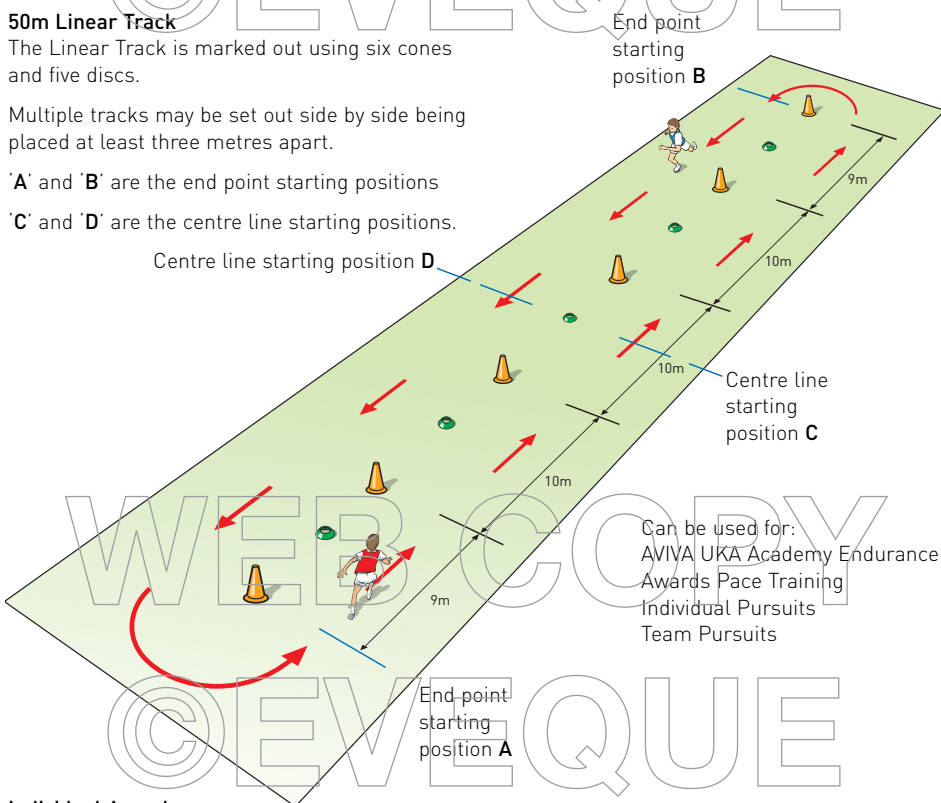
50m Linear Track

The Linear Track is marked out using six cones and five discs.

Multiple tracks may be set out side by side being placed at least three metres apart.

'A' and 'B' are the end point starting positions

'C' and 'D' are the centre line starting positions.



Individual Awards

The participants tackling the Endurance Awards start at points 'A' and 'B' and the distance they achieve in a stated time is recorded - see Section 8 for further details.

Individual Pursuits

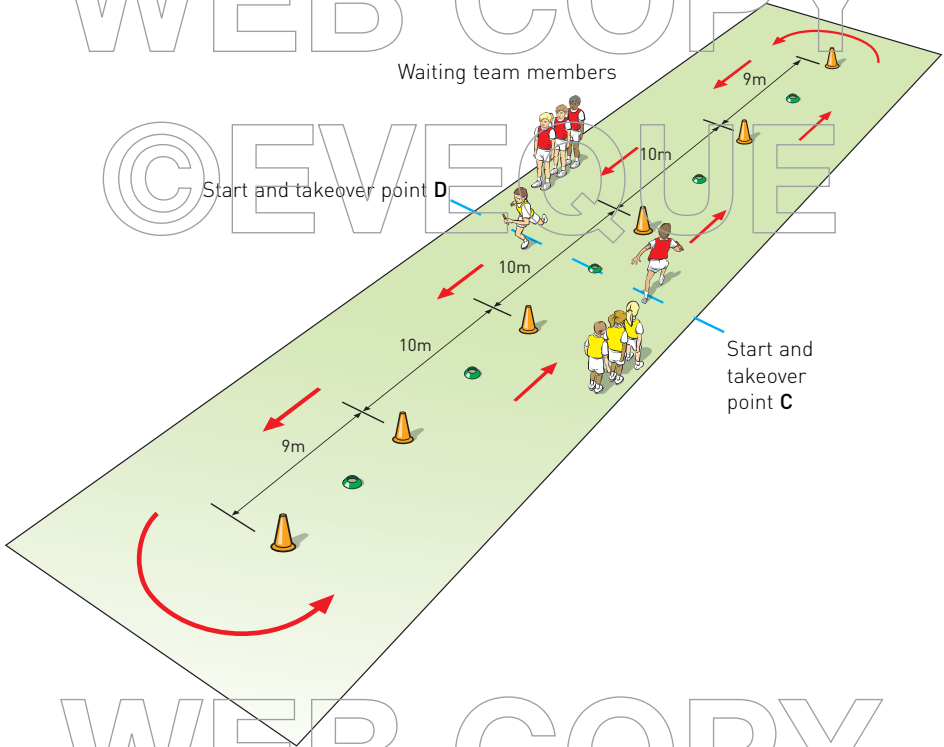
The participants start in opposite directions at the centre point of the track marked 'C' and 'D' and race over an agreed number of laps.

Pace Training

Full details on how this can be used for pace training are given in Section 6.

TEAM PURSUITS

For team pursuits, the first members of each team start in opposite directions on either side of the track at the centre point at the positions 'C' and 'D'. The pursuit will be over an agreed number of laps in sections of full or half-laps.



Team sizes can be varied. The start is placed at the mid-way point so that baton changing can be practised, unlike with the shuttle relay format. To cater for additional teams, two, three or four tracks can be accommodated, placed side by side with a minimum of three metres separating the lines of cones.

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Continuous Relays

Continuous relays can be held on a standard 400m track, one of the mini tracks detailed in Section two or on a track marked on a games field or parkland area and even in and out of some woodland as long as the sections are approximately the same. It is not essential for the lengths of the sections to be exact but measured 'near enough'.

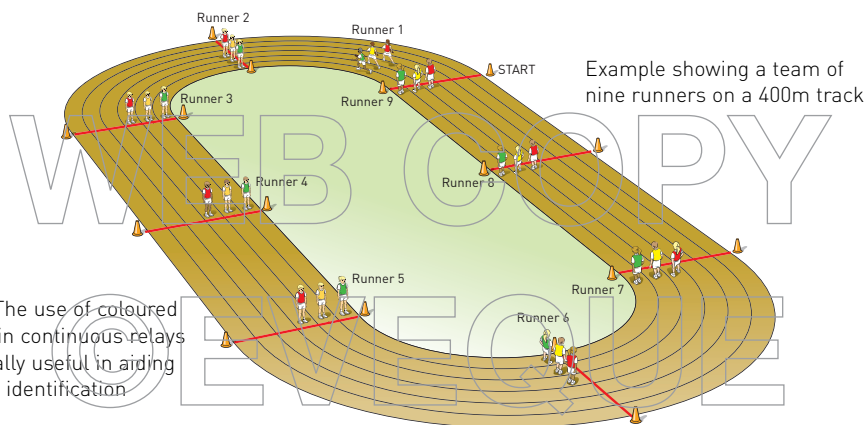
Continuous Relay - 400m Track

The example shown is for three teams of nine members running on a 400m track but this relay can be organised for teams with from 6 and 12 members. This activity is most suited to primary aged children.

For teams of nine members, the track is divided into eight segments each measuring 50 metres. The distance between the cones is short so each member is required to run several times, however, the number of laps will change depending on the number in each team.

To help with planning, the table contains a schedule of sections and lengths related to team size:

Team Size	Number of Sections	Section Lengths
6	5	80m
7	6	67m [approx]
8	7	57m [approx]
9	8	50m
10	9	44.5m [approx]
11	10	40m
12	11	36.5m [approx]



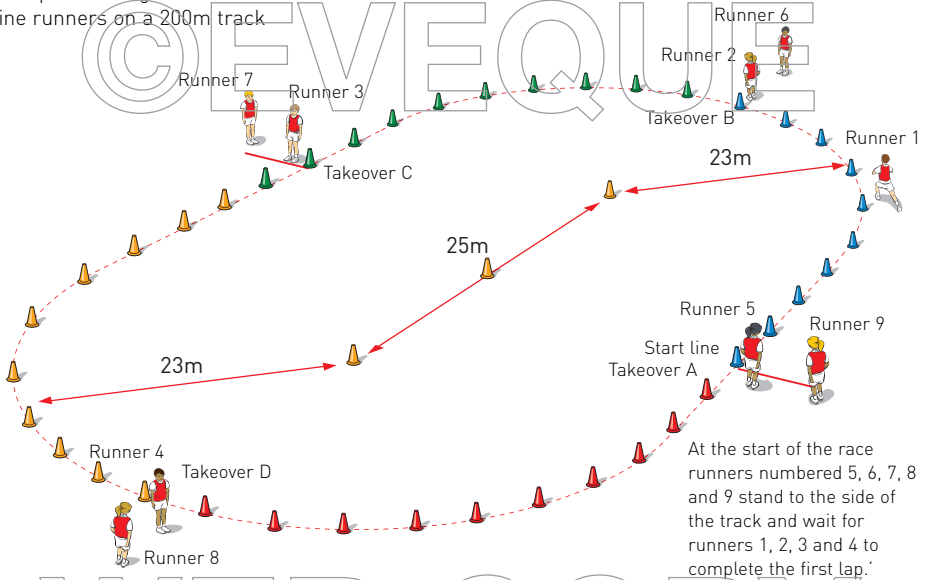
If there are only two or three teams then it is not necessary to allocate lanes for the start. With four or more teams the arrangements can be made to run the first bend in lanes. From the start, the baton is passed from runner to runner with the last runner eventually passing the baton back to the first runner. This continues until the declared number of laps have been completed.

It is recommended to use teams of nine children as shown because of the ease of dividing the track into eight sections of 50 metres each. Having one or two extra children over when the teams are selected is overcome by allowing two children to run the same leg together.

Continuous Relay - 200m Track

The following diagram shows how a 200m track can be used for the Aviva UKA Academy Endurance Team Awards for Primary-aged children. In this example, teams of **nine** children are required with the total distance being covered 1500m or 7 1/2 laps. Three team members will run four times each over 50m sections and the other team members will each run three times. We recommend a maximum of four teams competing each identified by coloured bibs.

Example showing a team of nine runners on a 200m track



Rules

From the start, the baton is passed from runner to runner with the last runner eventually passing the baton back to the first runner. This continues until the declared number of laps have been completed.

For secondary school ages the distance is increased to 5000m and the teams are reduced to five runners. Each athlete will run 200m or one complete lap before passing the baton. Each athlete will run five times.

Further details on the Aviva UKA Academy Endurance Awards are given on page 48.

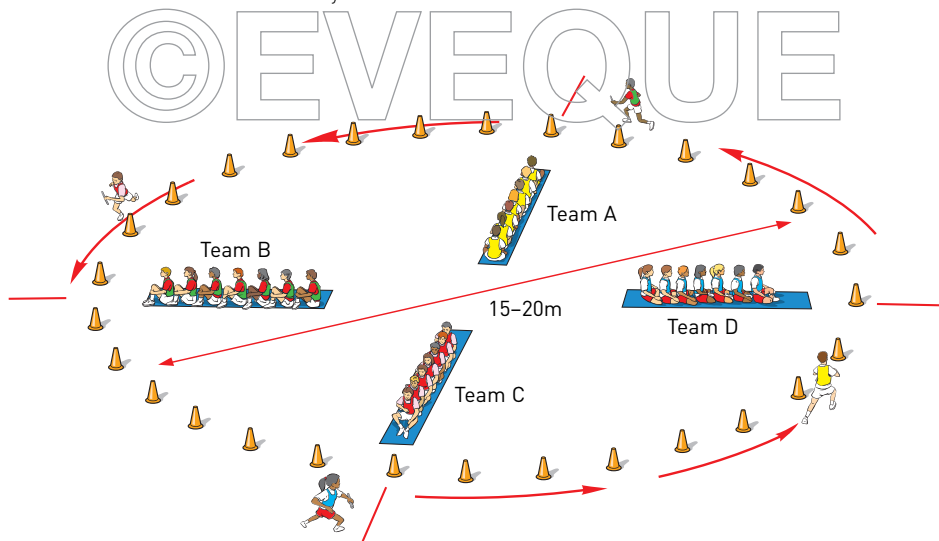
Continuous Relay - Other Tracks

Continuous relays can be run on many other types of improvised tracks with various team sizes. A smaller circuit may be split into three sections with four members in each team or a slightly larger circuit divided into five sections for teams of six can also be used. The track does not need to be a regular shape. Each team must always have one more member than the number of sections.

Tag Relay

The Tag Relay is suitable for both indoors and out and is an enjoyable game of chase that requires repetition runs from all the team members.

The track can be circular or oval. The radius of the bends can vary from seven to ten metres depending on the size of the facility available. It is very important to ensure the track allows the young athletes to run safely without colliding with walls or pieces of equipment and the track should be laid out with these safety considerations in mind.



Rules

Each runner runs one lap before passing the baton onto the next team member. The chase continues until someone catches the team in front and 'Tags' them with the baton. At this point, the whistle blows, all running stops and a point is awarded to the team making the 'Tag'. The two teams involved in the 'Tag' change places and the chase starts again.

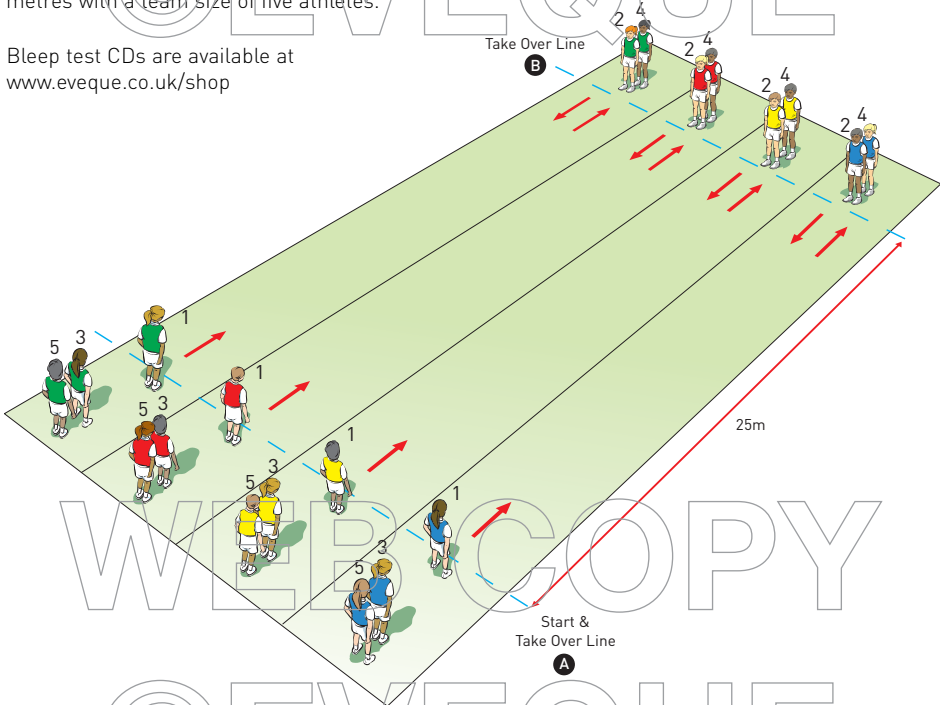
For example, if team 'A' catches team 'B' the whistle blows, everyone stops and team 'A' are awarded one point. Then 'A' and 'B' change places so that 'A' is chasing 'C', 'C' is chasing 'D' and 'D' is chasing 'B'.

When appropriate the referee can change the running direction from anti-clockwise to clockwise or have the scoring team change places with the team it caught. The teams do not necessarily require the same number so no youngster is left out.

The Bleep Test Relay

In the standard Bleep Test an athlete runs continuously between two points that are 20m apart from side to side. These runs are synchronized with a CD or laptop software, which plays beeps at set intervals. As the test proceeds, the interval between each successive beep reduces, forcing the athlete to increase their speed over the course of the test, until it is impossible to keep in sync with the recording or, in rare occasions, if the athlete completes the test. The relay version of the Bleep Test can be a lot of fun, normally lasts about 15 minutes and can easily be accommodated into a teaching period, an after school session or an activity for a club evening. The Bleep Test Relay operates using the same time intervals as the standard Bleep Test but has a team rather than an individual chasing the "bleep". The distance of the course is increased from 20m to 25 metres with a team size of five athletes.

Bleep test CDs are available at www.eveque.co.uk/shop



The diagram shows four parallel lanes, each a minimum of 2m wide but more lanes can be provided if there are sufficient participants. The relay can be held indoors or outdoors.

Rules

Each team has five runners. Three runners of each team assemble at end 'A' of their allocated lane with the other two at end 'B'.

Runner 1 starts the relay and runner 2 takes over to run the second length. Runner 2 can only start once the runner 1 has crossed the line. This procedure continues until runner 1 takes over from runner 5 and the sequence is repeated. Each runner must cross the far line before the "bleep" when the next runner may start. The gap between beeps gets progressively shorter as the relay progresses. Three consecutive failures to reach the line in time eliminates a team. To enable all group members to be involved 'spare' participants can be paired with another.

ORIENTEERING GAMES

These games provide an excellent endurance development activity for schools or clubs, especially when the weather is cold and/or wet. The games can take place on a field, playground or within the confines of a track provided that no other activities are taking place. The games are simple, fun activities which have proved popular with youngsters. There are three formats:

1) Sprint Orienteering (Repetition Training Exercises)

This provides a form of repetition training for teams of two, three or four members.

2) Pace Orienteering

This is a game requiring a sustained run in which the competitor covers approximately 1000m in an area the size of a football field. The check point cards have been designed to enable up to eight individuals or pairs to take part simultaneously.

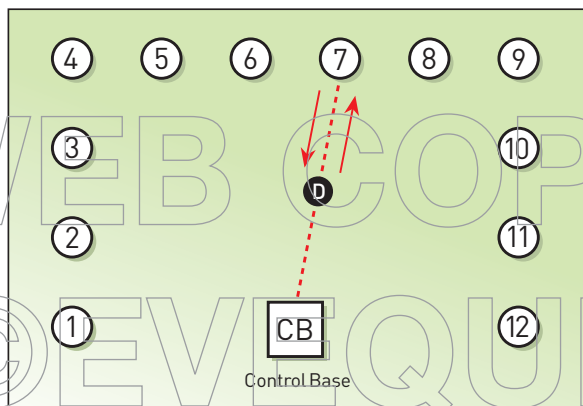
3) Pathfinder Orienteering

This game is a progression from the Pace Orienteering game in that the check points are presented in differing layouts and the participant carries a field Layout Map on which they must orientate their position and follow from checkpoint to checkpoint.

Sprint Orienteering (Repetition Training Exercises)

The checkpoints are laid out as shown on the diagram (see page 30). For primary school children the teams may consist of two, three or four children whereas secondary school children should work in pairs. In this case each team member runs six times (six repetitions). For the primary school age group with teams of three, each team member would do four repetitions and with teams of four, each member would do three. All the teams run the same distance, but the distance run by each individual team member may vary slightly.

Sprint Orienteering Layout



Rules

Allocate each team a letter 'A' to 'H'. Each team is given a relay baton. The first member of each team should be given the reference of their first checkpoint and mark it down on the Competitors Card. The first runners of each team start simultaneously, each running to their team's first reference checkpoint. When the first runners reach the first checkpoint they must observe and remember the next checkpoint reference that is shown against the letter allocated to their team and return to the Control Base with this information.

The diagram shows how the checkpoint should be laid out on an area such as the centre field of a track or on a playground or football pitch. Larger areas can be used for the secondary age groups.

Score Card

Eveque ORIENTEERING

COMPETITORS CARD

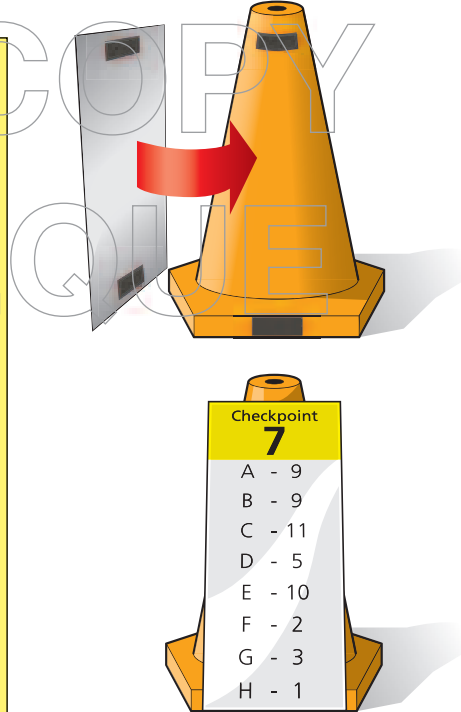
NAME LETTER

TEAM

SEQUENCE	
1 (START)	7
2	8
3	9
4	10
5	11
6	12 (FINISH)
TIME	CHECKED BY

01.10.18

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Fixing checkpoint cards to cones using Velcro®

Checkpoint Cards

Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6
A - 12	A - 10	A - 7	A - 11	A - F	A - 1
B - 4	B - 7	B - 1	B - F	B - 11	B - 10
C - 4	C - 5	C - 12	C - 9	C - 8	C - 3
D - 6	D - 12	D - 8	D - 11	D - 2	D - 10
E - 9	E - 8	E - 12	E - 7	E - F	E - 11
F - 10	F - 11	F - 9	F - 8	F - 7	F - 1
G - 5	G - 9	G - 10	G - F	G - 12	G - 7
H - 11	H - 10	H - F	H - 12	H - 19	H - 4

Checkpoint 7	Checkpoint 8	Checkpoint 9	Checkpoint 10	Checkpoint 11	Checkpoint 12
A - 9	A - 5	A - 6	A - 8	A - 3	A - 2
B - 9	B - 5	B - 6	B - 12	B - 2	B - 3
C - 11	C - F	C - 7	C - 6	C - 2	C - 1
D - 5	D - 1	D - 4	D - F	D - 3	D - 9
E - 10	E - 5	E - 3	E - 2	E - 4	E - 6
F - 2	F - 12	F - 5	F - 4	F - 6	F - F
G - 3	G - 6	G - 1	G - 4	G - 2	G - 8
H - 1	H - 3	H - 2	H - 7	H - 6	H - 8

Example:

The first member of team 'D' is sent by the team controller to checkpoint 7 and on arriving, notes the reference given against the letter 'D' which is: D - 5

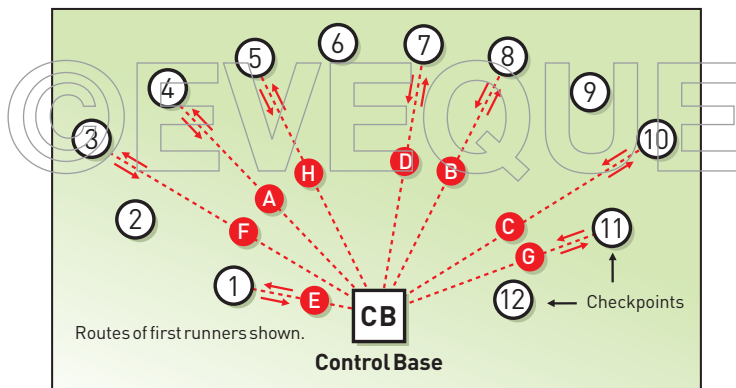
The runner notes that the reference is '5' and returns to tell the team controller and the next team member this reference. If the reference number that is brought back is wrong, the runner must return to the checkpoint to re-check the team reference number. If the reference number is correct, the team controller records it on the Competitors Card and the baton is exchanged. The next member then sets off to his or her allocated checkpoint.

The last member of the team to run will observe the letter 'F' which indicates the finish of the orienteering race plus a code word to remember and convey to the controller. If the team has performed the orienteering activity correctly, all 12 checkpoints should have been visited in the correct sequence as given on the Organisers' Master Check Card.

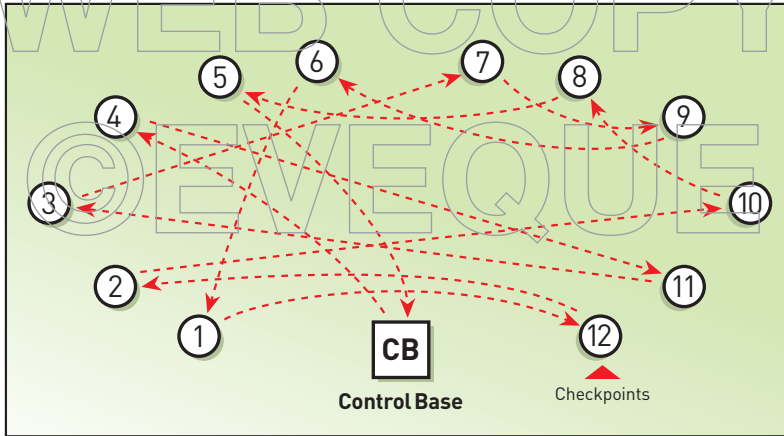
Master Sequence Check Card

		Sequence of Checkpoints Visited											
		1	2	3	4	5	6	7	8	9	10	11	12
Team	A	4	11	3	7	9	6	1	12	2	10	8	5
	B	8	5	11	2	7	9	6	10	12	3	1	4
	C	10	6	3	12	1	4	9	7	11	2	5	8
	D	7	5	2	12	9	4	11	3	8	1	6	10
	E	1	9	3	12	6	11	4	7	10	2	8	5
	F	3	9	5	7	2	11	6	1	10	4	8	12
	G	11	2	9	1	5	12	8	6	7	3	10	4
	H	5	9	2	10	7	1	11	6	4	12	8	3

Sprint Orienteering - example showing team routes to Checkpoint 1



2) Pace Orienteering



The diagram shows the layout of the checkpoints for the pace orienteering game and the route shown is for an individual or pair allocated reference 'A'. Using this layout within the confines of a track or an area the size of a football pitch, the participants will run approximately 1000 metres to complete their circuit. Eight individuals or pairs can compete simultaneously.

Rules

Assuming that you have decided to work with pairs:

Allocate each pair a letter (or make a draw) and give them a competitor's card and pencil. Tell each pair their starting reference i.e. the first checkpoint they visit and mark it in square one on the Score Card. Line up all eight pairs as teams at the control point and on "go" they run to the first reference. Pair 'A' will run to checkpoint '4' where the card tells them to proceed to checkpoint '11' which they record in square '2'. At checkpoint '11' they are directed to checkpoint '3' and so on until at checkpoint '5' they are sent back to the finish.

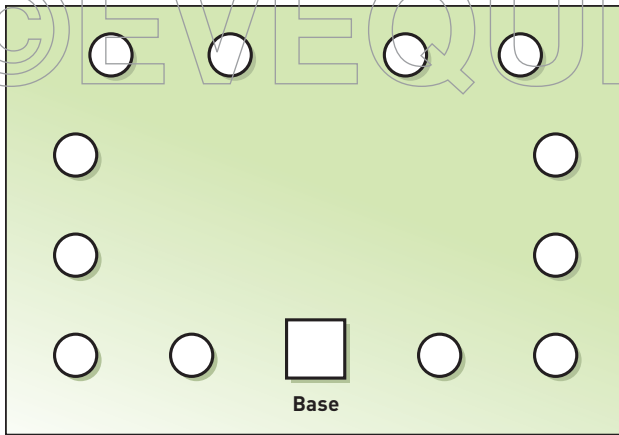
All pairs finish at the control centre where their recorded sequence is checked and their time recorded.

Note: This is a fun event as the distance covered by each team is not quite the same, however, it is enjoyable and a very good training session.

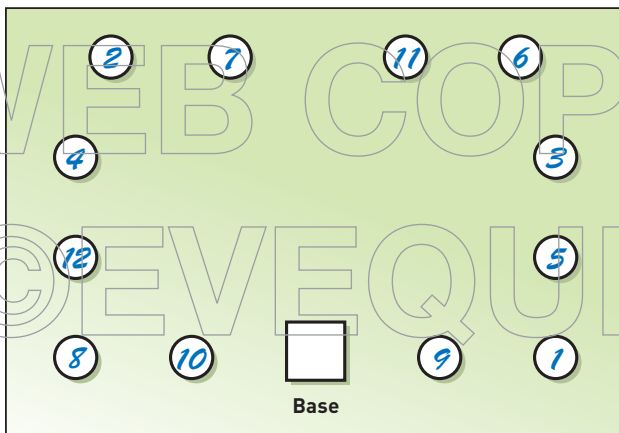
3) Pathfinder Orienteering

This activity is a development of the Pace Orienteering in which the location of the checkpoints are varied by the organiser. The participants are provided with a Layout Map which they carry along with their Score Card. The added challenge is that when a participant arrives at a checkpoint they must not only write down the number of the next checkpoint but they must also consult the Layout Map to find its location.

Blank Layout Map example - The instructor inserts the checkpoint numbers.



An example of a filled in Layout Map is shown below but the layout can be altered for each session.



The use of larger areas for the secondary age groups increases both the distance run and the judgement required from the participants.

HANDICAPPING

Handicapping - Introduction

The purpose of the handicap event is to give all the competitors an even chance of winning whatever their ability. In a perfect handicap race all the competitors would reach the finishing line at the same time.

Handicap races can stimulate both the less talented, by providing an opportunity to shine, and the better athletes by providing them with worthwhile competition in training. It also solves the problem of the better athlete continually having to set the pace for lack of a partner of comparable ability.

Handicapping Methods

There are two main methods of handicapping athletes for track and cross country races:

Distance Handicapping by staggering the distances from which a competitor starts with those of lesser ability starting further ahead. This method is normally applied to handicap races up to 1000 metres.

Time Handicapping by staggering the time at which the competitor starts with those of lesser ability starting before the better athletes. This method is much simpler and more practical for distances over 1000m whether on the track, on roads or cross country.

Handicapping by Distance - for races up to 1000m

The Pacesetter 800 metres Handicapping Tables are provided as a guide to assist teachers and coaches to establish a handicap programme. The tables are divided into four 'Levels' to allow for different ages and abilities. A suitable level should be chosen which best covers the ability range of the whole group. Tables for other distances are available to download at www.sportshall.org/endurance

The Handicap of any athlete should be based on their expected 800m time. The tables give the recommended starting position measuring forward or back from a chosen scratch line.

The recommended staggers have been adjusted into simple steps of ten metres although the markers on the track are placed at 5m intervals to allow discretion for the handicapper.

To start a distance handicap race, all athletes should start at their appropriate handicap mark and finish at the normal finishing line.

If required, a participant's actual time for the race can be obtained by having the athlete run through to their starting mark at the finish. Best times have been set by utilising the "run through" and indeed the great miler Sydney Wooderson set three world records in the 800 metre, 880 yards and the mile during handicap races.

Using Distance Handicaps as part of a training programme

The tables should be used as a guideline for fixing handicaps at the start of a season's programme or when a new member joins a club. Should a regular programme of handicapped races be established then the following tips may be useful:

- Award points for each race to say the first six places
- Apply penalties to the first three in the race, e.g. first - 15m, second - 10m and third - 5m
- Use discretion as to whether anyone is moved forward for the next race

Applying the points system over a series of races overcomes the problem of someone gaining a false handicap position because they can only do it once before the organiser is alerted. Handicap marker discs - Number rubber discs are available to assist marking tracks. For more information please visit www.eveque.co.uk/endurance

PACESETTER 800M HANDICAPPING TABLES

Metres per sec	Level 1 Handicaps		Level 2 Handicaps		Level 3 Handicaps		Level 4 Handicaps		
	Pace	Time	Metres	Time	Time	Metres	Metres	Time	Metres
6:67								2:00	Scratch
6:40								2:01	7
								2:02	13
								2:03	20
								2:04	26
								2:05	32
6:04								2:06	38
						2:06	-30	2:07	45
						2:08	-20	2:09	55
						2:10	-10	2:10	65
						2:12	Scratch	2:12	75
						2:14	10	2:14	85
5:71						2:16	20	2:16	95
				2:18	-30	2:18	30	2:18	105
				2:20	-20	2:20	40	2:20	115
				2:22	-10	2:22	50	2:22	125
5:33				2:24	Scratch	2:24	60	Limit	125m
				2:26	10	2:26	70		
				2:28	20	2:28	80		
				2:30	30	2:30	90		
				2:32	40	2:32	100		
		2:34	-30	2:34	50	2:34	110		
5:00		2:36	-20	2:36	60	2:36	120		
		2:38	-10	2:38	70	2:40	130		
		2:40	Scratch	2:40	80	Limit	130m		
		2:42	10	2:42	90				
4:71		2:44	20	2:44	100				
		2:46	30	2:46	110				
		2:48	40	2:48	120				
		2:50	50	2:52	130				
		2:53	60	Limit	130m				
4:40		2:56	70						
		2:59	80						
		3:02	90						
4:21		3:05	100						
		3:10	110						
		3:15	120						
		3:25	130						
	Limit	130m							

Handicapping by Staggered Start Times - for races over 1000m

The expected performance of the weakest competitor is used as a datum to determine the scratch position and the competitors are lined up in file behind this member in order of their ability. The timekeeper starts the watch as the first runner starts and all the following runners are set off in turn at the time estimated for them to catch the leader by the end of the race. The same watch can be used to record finishing times and actual times are calculated by subtracting the handicap start time. For example, consider a number of young athletes taking part in a race over a distance of 1500 metres.

Name	Estimated Performance	Handicap in seconds
Shari	5 min 35 sec	0 secs
Adam	5 min 27 sec	8 secs
Anne	5 min 21 sec	14 secs
Charlotte	5 min 15 sec	20 secs
Ben	5 min 08 sec	27 secs
Sadik	5 min 02 sec	33 secs
James	4 min 55 sec	40 secs

As the programme progresses through the season the coach will develop a sound idea as to the correct handicap for each athlete and may be pleasantly surprised by the improvement made by all the group members.

A 3 2 1 course can be used for this programme. For further details please visit www.runinengland.org.uk/321.



PACE TRAINING



Why Pace Training is Important

The object of pace training is for an athlete to identify and develop the ability to run at a pace of maximum efficiency for a required time or distance. This we refer to as their "Optimum Pace".

Let us consider the three sections of an endurance race:

The Start

Running at Optimum Pace

The Finish

The Start

Many young athletes experience problems controlling their speed at the start of an endurance race which in turn can have a significant effect on race performance.

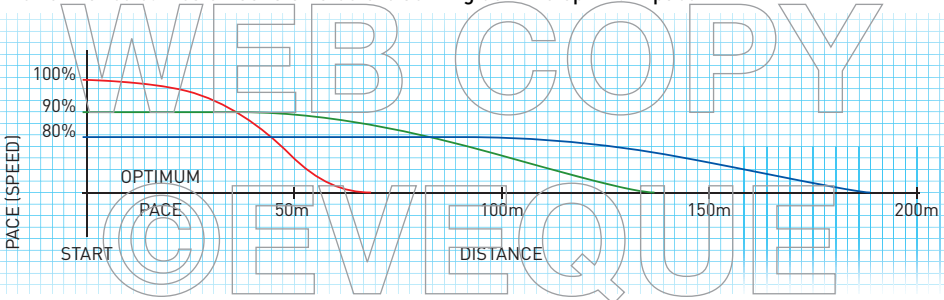
At the start of any running event the body has a reserve of energy which can be dissipated before an oxygen debt occurs. Most sprinters when running flat out in a 100 or 200 metre race, with the possible exception of some elite performers like Usain Bolt, hit a point where this reserve is used up and they go into an anaerobic condition, i.e. they get out of breath and start to slow down.

It is most important that athletes do not exceed the 'critical point' where oxygen debt is incurred. This is seldom more than 50m and is illustrated by the diagram on the following page. The critical point is different for everybody and therefore it is vitally important the athletes know what is right for themselves and are not encouraged to overexert themselves by trying to keep up with others whose critical point might be different to their own.

Young athletes who overexert themselves at the start of a race by sprinting for the first 200m, for example, will incur a considerable oxygen debt, will be unable to settle down to their optimum pace (see next page) and will more than likely underperform.

The reaching of the critical point depends on how fast above optimum pace the runner goes at the start of the race. In a flat out sprint it is reached at about 40 or 50 metres but from experience an athlete controlling their effort to 80% to 90% of maximum speed will delay the critical point to over 100 metres or more and then be able to settle comfortably to the optimum pace.

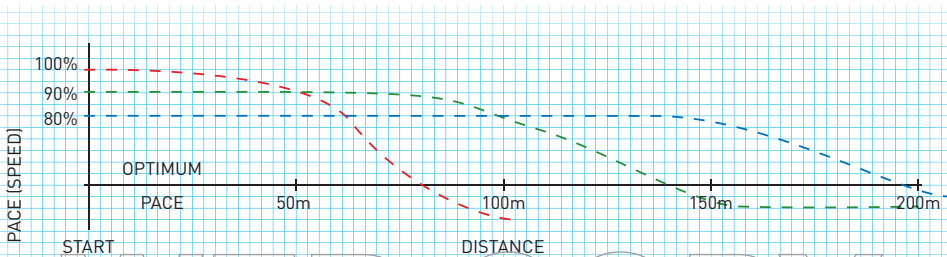
Performance curves of fast starts before settling down to optimum pace



The above is an approximation of what speed can be maintained at the start of a distance race before an athlete settles down to their Optimum Pace (see below). This is just a typical example because the situation is different for all runners who by experience should find their own performance capabilities.

Performance curves when running too fast for too long at the start

An athlete sprinting hard or maintaining a pace above their optimum for an extended period of time will eventually tire and under perform.



This graph shows what might happen if athletes run too fast for too long at the start of a race as they are unable to settle at their Optimum Pace. They may, however, recover after a period of time, something which is referred to as getting a "second wind"

Running at Optimum Pace

In 1932 the 800-metre Olympic Champion Tom Hampson demonstrated that by finding the maximum even pace which you could maintain for any distance you could produce an athletes best performance. We will refer to this as the 'Optimum Pace'.

Pace training is very simple, well used by coaches and can be an enjoyable exercise.

The Finish

A problem for many endurance runners is their ability to change pace and sprint as they approach the finish. All too often after leading or keeping up with the leaders for the majority of the distance they are out sprinted in the closing stages.

The Bleep Test is an ideal endurance exercise for improving finishing ability. It can be undertaken in its standard form by individuals or in a relay format for the younger age groups. It calls for an increased effort as the test progresses requiring ever increasing speed so it is in the final stages that the participants must go fastest. For details please refer to page 27.

PACE JUDGEMENT

Overview

Although learning the skill of pace judgment can be quite a challenge, with practise most children can become quite adept. Indeed, as already stated, a high percentage of young athletes, and sometimes even elite athletes, set off far too quickly in endurance activities and many find themselves distressed after a short period of time.

It is important that an instructor always works within the capability of each young athlete and does not push him or her to achieve unrealistic times set by those more capable. For example, a good 12 year old may be recording around two minutes 32 seconds for 800 metres whilst other club members may only be capable of around three minutes. The instructor needs to recognise these different ability levels and be careful to ensure the young athletes are working within their own ability.

Although normally done on a 400 metre track, pace training can be taught equally well using a linear course as will be explained.

The purposes of the following exercises are not to set new targets but to teach young athletes economy and self-control over distance they are running. The application of control will improve performance with a more even expenditure effort.

Objective

If we refer to the Primary Award Tables on page 46, we can see that the Bronze Award for girls is set at reaching a distance of 400 metres in the Two Minute Test. This means that when running at an even pace the youngster should turn at each end of the course at intervals of 15 seconds while a boy aiming for Gold needs to turn at intervals of 12 seconds.

The instructor should set an appropriate target for an individual and blow a whistle at the required intervals enabling the athlete to know if they were in front or behind schedule at each turn.

Schedule of Split Times for Even Pace Running on a 50m Linear Track

Split	Slower		Split times in minutes and seconds						Faster	
50m	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0	
100m	32.0	31.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	
150m	48.0	46.5	45.0	43.5	42.0	40.5	39.0	37.5	36.0	
200m	1:04.0	1:02.0	1:00.0	58.0	56.0	54.0	52.0	50.0	48.0	
250m	1:20.0	1:17.5	1:15.0	1:12.5	1:10.0	1:07.5	1:05.0	1:02.5	1:00.0	
300m	1:36.0	1:33.0	1:30.0	1:27.0	1:24.0	1:21.0	1:18.0	1:15.0	1:12.0	
350m	1:52.0	1:48.5	1:35.0	1:41.5	1:38.0	1:34.5	1:31.0	1:27.5	1:24.0	
400m	2:08.0	2:04.0	2:00.0	1:56.0	1:52.0	1:48.0	1:44.0	1:40.0	1:36.0	

Running at the above splits the following distances be achieved in metres:

Split	16.0	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0
2 Min	375	387	400	414	429	444	462	480	500
3 Min	562	580	600	621	643	667	692	720	750

For primary age groups, the training for pace judgment should progress so that the children first get reasonably accurate for 50 metres and 100 metres before progressing step by step to a maximum training accurate distance of 250 metres (five lengths). The same process is applied for the secondary age groups but they may progress up to a maximum of 400 metres (eight lengths).

For youngsters the depreciation of performance between a one minute test, a two minute test or a three minute test is considerable and this is reflected in the award tables.

PACE JUDGEMENT

Pace Judgement using a 400m track

Pace Run - Introduction

The aim of pace running is to help achieve better times in competition by building up to and maintaining a quicker even-pace over shorter distances. In training, young athletes using the 800m pace schedule should not exceed 400m runs and 1500m trials should be run over a maximum of 600m. These maximum distances should only be attempted after a gradual build-up to achieve cardio-vascular fitness and confidence in the young athlete's ability.

'Pace Schedules' for 600m, 800m, 1000m, 1200m and 1500m showing split times for even-pace running are provided on page 40.

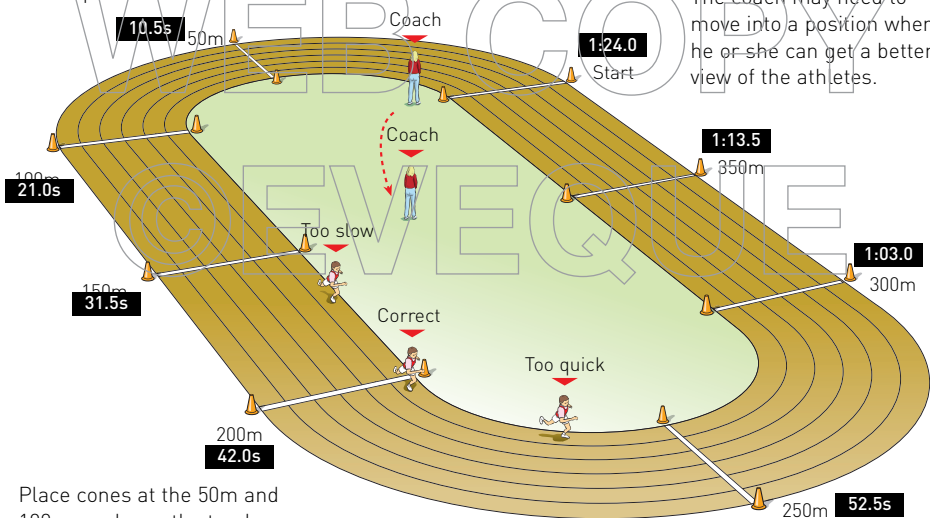
Instructors should emphasise to young athletes that they are not to race and must try to keep within their own individually allocated pace schedule. Provided the target times have been set correctly, the young athletes will be running within their own capabilities and they will recover very quickly. However, a sufficient rest period should always be given between trials.

Secondary aged athletes who have become experienced in pace judgment through training sessions can then be allowed to participate in time-trials on an individual basis. This is done over at least two-thirds and not more than three-quarters of the competition distance. Therefore, young athletes wishing to compete at the 800m will participate in a five or six x 100m time-trials. If the young athletes can run comfortably and hit their given 'Pace Schedule' in these time trials, they should be confident of achieving target times during competitions.

Example showing splits for an 800m target time of 2m 48s

Group the athletes in pairs of similar ability and select an appropriate 'pace schedule' for each pair. For example, one young athlete may have a personal best of two minutes 49 seconds for the 800m and the other having a personal best of two minutes 53 seconds. It is advisable for these young athletes to work to a pace schedule giving a slight improvement say two minutes 48 seconds as this is nearest to an even pace schedule split improving on their personal best. If they are running at the right pace to achieve two minutes 48 seconds then they must reach the 50m, cone in 10.5 seconds and the 100m mark at 21 seconds.

Cones placed at 50m intervals



The coach may need to move into a position where he or she can get a better view of the athletes.

Place cones at the 50m and 100m marks on the track.

Using a run through start ten metres back from the line, start the stopwatch as the runners pass the start line.

Blow the whistle after 10.5 seconds and note the point reached.

Remind the athletes that it is not a race but an exercise in pace judgment and they should note where they are in relation to the first and second cones when the whistle is blown to check their position.

Each pair within the group takes their turn using their own pace schedule.

Normally several repetitions are required to reasonably perfect the pace over the 50m and 100 metre runs. Youngsters should be encouraged to work on this.

When it is the turn of the first pair to run again, ensure that the young athletes have had an adequate rest period of at least three minutes. Before each group starts its next run, advise members whether they should increase or decrease their speed from their previous effort. This may take a complete session to master but it is very important that they become consistent in the very early stages of pace judgment.

Pace Run - Stage Two

When the young athletes have mastered the correct pace over a 100m, set them to run 200m and blow the whistle at the 50m splits, the challenge being for them to perfect the desired pace.

Pace Run - Stage Three

The training distance is then increased to 300m and onto 400m with split checks at 50m.

Pace Schedule Table

The charts below provide the split times for pace training on a 400m track related to the target times for 600m, 800m, 1000m, 1200m and 1500m distances.

Splits for Even Pace

Split	Slower		Split times in minutes and seconds								Faster		
50m	13.0	12.5	12.0	11.5	11.0	10.5	10.0	09.5	09.0	08.5	08.0	07.5	
100m	26.0	25.0	24.0	23.0	22.0	21.0	20.0	19.0	18.0	17.0	16.0	15.0	
150m	39.0	37.5	36.0	34.5	33.0	31.5	30.0	28.5	27.0	25.5	24.0	22.5	
200m	52.0	50.0	48.0	46.0	44.0	42.0	40.0	38.0	36.0	34.0	32.0	30.0	
250m	1:05.0	1:02.5	1:00.0	57.5	55.0	52.5	50.0	47.5	45.0	42.5	40.0	37.5	
300m	1:18.0	1:15.0	1:12.0	1:09.0	1:06.0	1:03.0	1:00.0	57.0	54.0	51.0	48.0	45.0	
350m	1:31.0	1:27.5	1:24.0	1:20.5	1:17.0	1:13.5	1:10.0	1:06.5	1:03.0	59.5	56.0	52.5	
400m	1:44.0	1:40.0	1:36.0	1:32.0	1:28.0	1:24.0	1:20.0	1:16.0	1:12.0	1:08.0	1:04.0	1:00.0	
450m	1:57.0	1:52.5	1:48.0	1:43.5	1:39.0	1:34.5	1:30.0	1:25.5	1:21.0	1:16.5	1:12.0	1:07.5	
500m	2:10.0	2:05.0	2:00.0	1:55.0	1:50.0	1:45.0	1:40.0	1:35.0	1:30.0	1:25.0	1:20.0	1:15.0	
550m	2:23.0	2:17.5	2:12.0	2:06.5	2:01.0	1:55.5	1:50.0	1:44.5	1:39.0	1:33.5	1:28.0	1:22.5	
600m	2:36.0	2:30.0	2:24.0	2:18.0	2:12.0	2:06.0	2:00.0	1:54.0	1:48.0	1:48.0	1:36.0	1:30.0	
800m	3:32.0	3:20.0	3:12.0	3:04.0	2:56.0	2:48.0	2:40.0	2:32.0	2:24.0	2:12.5	2:08.0	2:00.0	
1000m	4:20.0	4:10.0	4:00.0	3:50.0	3:40.0	3:30.0	3:20.0	3:10.0	3:00.0	2:50.0	2:40.0	2:30.0	
1200m	5:12.0	5:00.0	4:48.0	4:36.0	4:24.0	4:12.0	4:00.0	3:48.0	3:36.0	3:24.0	3:12.0	3:00.0	
1500m	6:30.0	6:15.0	6:00.0	5:45.0	5:30.0	5:15.0	5:00.0	4:45.0	4:30.0	4:15.0	4:00.0	3:45.0	

RACE WALKING

Walking can be lots of fun and is particularly suitable if introduced to young athletes as a game as it enables large numbers to take part. With the under 13 years-age group it is recommended that only the basic concept of walking be introduced. The initial emphasis should therefore be walking in a straight line and maintaining unbroken contact with the ground. The technique adopted is one in which the walker strikes the ground each step with the heel of the forward foot and the leg straight, pushing on that foot up to the toe to increase stride length and driving forward.

The Head

The eyes should be fixed forward, head steady and neck muscles relaxed. The head must not be allowed to roll from side-to-side at any point as this may lead to inefficiency in the rest of the technique.

The Knees

The knee needs to be straightened vigorously as the leg pushes the athlete onto the other foot. The general impression here is of an extension at the hip, knee and ankle with a push off the ball/toes of the foot.

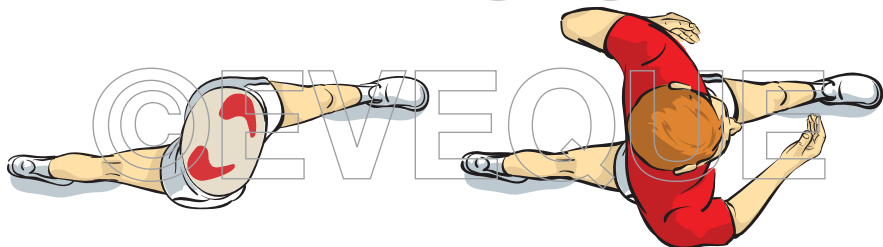


The Feet

Emphasis must be on placing the inside of the heel on the ground and walking along the inside edge of the shoe along the line of progression. For this practice the lane marking lines on the track may be used. The whole foot must be brought into use and the walker must feel that they are pushing off the ball/toes of one foot onto the heel of the other. The sequence should be heel, roll, toe and push.

The Trunk

The back and abdominal muscles must be strong as there is considerable involvement of these groups in maintaining a solid, erect posture. The back must be straight but remain relaxed to ensure tension is not created in the body and to ensure maximum efficiency in the technique.



The Hips

The hips should be swung well forward to enhance the stride length but at the same time the hips should simulate a wave-like motion reaching a high point when the supporting leg is straightened in the vertical position and a low point during the recovery when it passes the straightened leg. This helps to avoid total rise and fall of the body, therefore keeping the centre of gravity fairly constant.

The Shoulders and Arms

A powerful arm action should be used to drive the body and legs forward. The action is over a wide range and the elbows should be maintained as near as possible to the body at 90° flexion. The elbow should be pulled high behind the body and the arms should swing across in front of the body with the hands rising to level with the sternum or breast bone. Shoulders should be kept square to the direction of the movement.

Group Observation

Having carefully explained the basic technique of race walking, the young athletes can work with partners or small groups and observe each other's actions.

- Is your partner maintaining contact with the floor?
- Is your partner holding their trunk and head erect or are they leaning forwards and backwards?
- Is the head rolling from side-to-side?
- Is your partner keeping the knee straight after planting the heel?
- Is your partner using their hips correctly?
- Could your partner increase their stride length?
- Are your partner's shoulders being kept square?
- Does your partner have good arm swing?

Young athletes who have developed a good walking technique can now become demonstrators and they can demonstrate their technique to their peers.

Summary of Technique

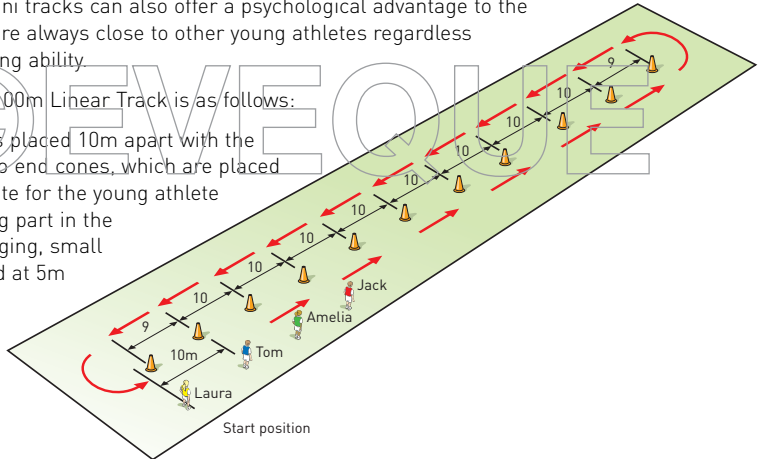
- 1 One foot must be in contact with the ground at all times.
- 2 Head and trunk to be kept upright with a 5° forward lean.
- 3 Strike off the ground with the heel of the foot and ensure a straight leg action.
- 4 Roll the sole of the foot, push up to the toes, which will increase stride length.
- 5 Hip action - maintain the swinging forward.
- 6 Arm action - prevent over-swing.

Walking for a Fixed Time

This activity can be carried out either on a 50m Linear Track or Round or Oval Track (see Section 2), the aim of the activity being to walk as far as possible in a set time period. Using an improvised track compared to using a 400m track can be very beneficial to both as the coach is always close to the young athletes and can therefore observe any distress they may be experiencing and act accordingly. The mini tracks can also offer a psychological advantage to the athletes that they are always close to other young athletes regardless of walking or running ability.

The layout for the 100m Linear Track is as follows:

A series of cones is placed 10m apart with the exception of the two end cones, which are placed at 9m to compensate for the young athlete turning when taking part in the activity. To help judging, small disks can be placed at 5m interval positions.



The diagram shows four athletes starting at 10m intervals. The start position will be deducted from the final distance as shown in the Score Card example below.

Two tracks may be used set a minimum distance of 3m apart to facilitate more participants.

The trials are for a specified time period of one or two minutes. At the end of the time period the whistle is blown and the athletes are told stand still so their distance can be measured.

It is important with all the games that the athletes are encouraged to learn the skill correctly and therefore it is suggested that penalties rather than disqualification for an illegal walking technique are applied. The instructor or other young athletes can therefore act as judges giving yellow cards that can be shown to the participating young athlete for a foul.

The penalties for illegal 'lifting' techniques should be 10m for each fault and each time the athlete should be shown a yellow card.

Sample Score Card

Session: <i>Class 2T</i> Date: <i>15th September 2010</i> Test Period: <i>2 minutes</i>										
	50m	100m	150m	200m	250m	300m	Start Position	Distance Walked	Penalties	Total
<i>Laura</i>	✓	✓	✓	✓	20		0m	220m	-	220m
<i>Tom</i>	✓	✓	✓	✓	✓	0	-10m	260m	-40m	210m
<i>Amelia</i>	✓	✓	✓	✓	✓	10	-20m	250m	-20m	210m
<i>Jack</i>	✓	✓	✓	✓	✓	10	-30m	210m	-20m	260m

WALKING TEAM COMPETITIONS

Relays

Most of the relays described in the activities section can be adapted to walking. Two other forms of team competition are:

Walking for a Fixed Time - Team Event

This uses the same format as the individual tests except that scores are added together.

The following example shows a group competition for four teams. Since the scoring is based on the summation of the best four performances of each team, the team sizes do not have to be equal as illustrated.

RED TEAM				BLUE TEAM			YELLOW TEAM			GREEN TEAM		
Name	Dist	Best 4		Name	Dist	Best 4	Name	Dist	Best 4	Name	Dist	Best 4
1 Billy	140	140		1 Anne	130	130	1 Sophie	125	125	1 Jack	115	-
2 John	130	130		2 Malik	130	130	2 Maria	140	140	2 Loretta	125	125
3 Aisha	135	135		3 George	135	135	3 Will	135	135	3 Sarah	125	125
4 Alison	130			4 John	115	-	4 Bob	120		4 Carol	120	120
5 Jamal	120			5 Ian	125	125	5 Alan	115		5 Mike	135	135
6 Bobby	145	145		6 Padma	120	-	6 Aliya	115		6 Salim	120	
7 Paul	115			7 -	-	-	7 Janet	130	130	7 -	-	-
Score	550			Score	520		Score	530		Score	505	

Walking for a Fixed Distance Team Event

Similar to the walking for a fixed time team event, the scoring can be based on time achieved over a given distance with the summation of the fastest four times counting as the team score.

This exercise can be a number of laps of a standard 400m track, a Mini Track or for 1km, 2km or 3km on a measured 3, 2, 1 course.

The penalties for illegal 'lifting' techniques should be 10m for each fault and each time the athlete should be shown a yellow card.

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AVIVA UKA ACADEMY ENDURANCE AWARDS

The Endurance section of the Aviva UKA Academy Awards is designed to be inclusive for all children with targets set to be attainable by everyone. Research has shown that when testing inexperienced children on a standard 400m track, a considerable number start off too fast and fade badly. Many give up trying out of embarrassment when on the far side of the track so the test becomes invalid. For many children, a 400m track presents a long, monotonous and arduous task. The Awards overcome this by dividing the task into bite-sized chunks by using the 50m Linear Track or the 50m Sports Hall Oval Track as described in Section 2.

The vast majority of children should be able to cope well with this task and we would seldom expect that a child gives up. Indeed, we would expect many children of moderate ability to manage to achieve a further distance than they do on a 400m track.

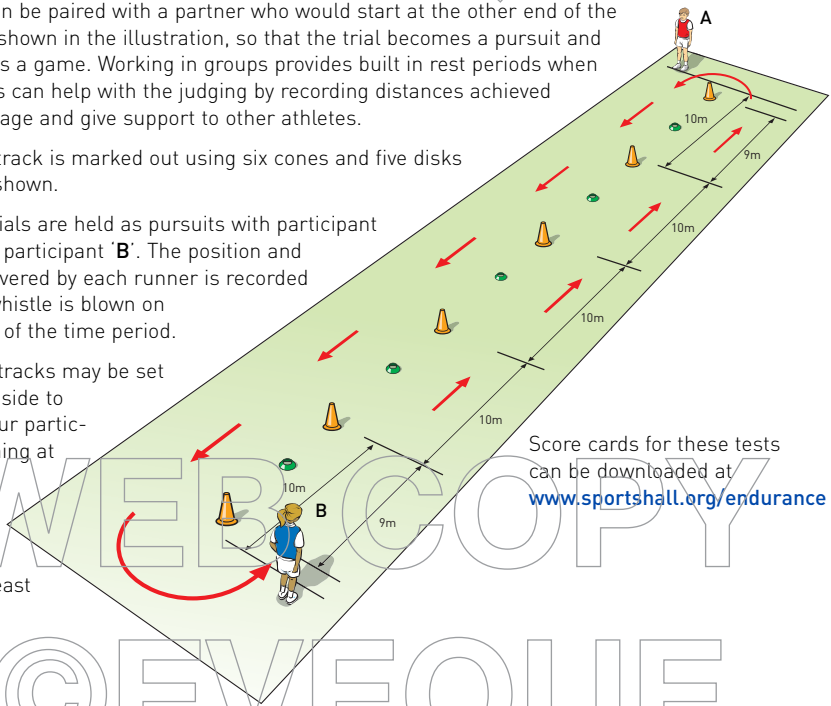
Group Working

Children can be paired with a partner who would start at the other end of the course, as shown in the illustration, so that the trial becomes a pursuit and is treated as a game. Working in groups provides built in rest periods when participants can help with the judging by recording distances achieved and encourage and give support to other athletes.

The linear track is marked out using six cones and five disks set out as shown.

The time trials are held as pursuits with participant 'A' chasing participant 'B'. The position and distance covered by each runner is recorded when the whistle is blown on completion of the time period.

Two linear tracks may be set out side by side to facilitate four participants running at the same time. The tracks should be placed at least 3m apart.



Score cards for these tests can be downloaded at www.sportshall.org/endurance

Aviva UKA Academy Endurance Awards - Individual Test Periods	
Age Group	Test Period
Years 3 and 4 (ages 7 to 9)	One Minute
Years 5 and 6 (ages 9 to 11)	Two Minutes
Years 7 and 8 (ages 11 to 13)	Three Minutes

AVIVA UKA ACADEMY ENDURANCE INDIVIDUAL AWARDS

PRIMARY YEARS 3 & 4 (AGES 7-9) - ONE MINUTE TEST

The reason for choosing a one minute test for the youngest is that an effort over a one minute period is well within the capability of the vast majority of children and is unlikely to cause distress. Children accumulate less of an oxygen debt than adolescents and consequently will run out of steam more quickly but will recuperate faster.

In the one minute test most of the contribution comes from their aerobic reserves and it is, therefore, not a true test of sustained effort. The one minute test does, however, give confidence.

PRIMARY YEARS 5 AND 6 (AGES 9-11) - TWO MINUTE TEST

In general, there is a considerable drop off in the pace a child can maintain between the one minute test and the two minute test. The pace ratio for the two minute test seems to average between 0.85 to 0.9 of the one minute test, e.g. a ten year old covering 240 metres over a one minute trial might only cover 425 metres in two minutes. As youngsters learn to judge their pace better a greater distance will be covered. There is no harm in children running steadily for longer periods to cover one, two or three kilometres but for the purpose of judging endurance and fitting group testing into a session, the two minute test is adequate.

SECONDARY YEARS 7 AND 8 (AGES 11-13) - THREE MINUTE TEST

For this age band the test period is increased to three minutes. The three minute test approximately equates to an 800 metre run on a track and again there is normally a considerable drop off in pace with inexperienced athletes between the two minute and three minute tests. Although at primary school age tests show minimal differences between girls and boys, at this age it should be noted that girls performances generally start to lag behind those of the boys. This is due in part to the differences in physical development but also can be due to a marked change in attitude towards participation.

A schedule of splits against the award targets is given in the pace training section (see page 40) to enable youngsters to practise and improve their pace judgement and efficiency and thus improve the level of award which they can achieve.



Aviva UKA Academy Endurance Awards - Individual						
	Years 3 & 4 (ages 7-9)		Years 5 & 6 (ages 9-10)		Years 7 to 9 (ages 11-14)	
	Scotland Primary 3-5		Scotland Primary 6-7		Scotland S1-S3	
	One Minute		Two Minute		Three Minute	
	Girls	Boys	Girls	Boys	Girls	Boys
Gold	-	-	470	500	710	750
Silver	-	-	435	460	670	710
Bronze	-	-	400	420	635	670
Step 10	230	245	380	400	610	640
Step 9	215	230	360	380	580	610
Step 8	200	215	345	360	550	580
Step 7	190	200	330	345	525	550
Step 6	180	190	315	330	500	520
Step 5	170	180	300	315	475	490
Step 4	160	170	280	290	450	460
Step 3	140	150	250	250	375	385
Step 2	120	130	200	200	300	310

Table shows distance completed in metres

AVIVA UKA ACADEMY MARATHON AWARDS

Whilst a single test can be used to measure a young person's running ability in an endurance event, it is important to encourage and give recognition for maintaining a sustained programme of activity over a period of time which is vital for maintaining fitness.

Award Targets

Targets have been set which call for participants to maintain a regular programme of training over a period during a school term. As a normal school term lasts for 12 to 13 weeks, a margin has been allowed in case a programme is interrupted by bad weather in winter or for some other reason. The activity can be undertaken on a measured course and can also include other activities at the teacher's discretion, such as walking or running to and from school or hikes and runs out of school time.

Marathon History

The modern Marathon has been based on the distance that the Greek messenger Pheidippides ran to deliver the news of a victory over Persia in the Battle of Marathon in 490BC.

As an original Modern Olympic event the distance was refined several times during the beginning of the 20th century before the standard was set at 42.195km or 26 miles and 385 yards, the same distance as the 1908 London Olympic course from Windsor Castle to White City Stadium.

Many major cities now host large scale marathons each year with world class athletes at the front of the field and thousands following. African athletes dominate the fastest men's all time lists but the women's bests are spread around the world, headed by GB's Paula Radcliffe's world best of two hours 15 minutes and 25 seconds in April 2003.

Primary - Years 5 and 6 (ages 7-9)

The challenge is for the children to cover at least the marathon distance of 42.195km through a sustained programme of activity within the period of the school term.

It is reasonable that children in years 5 or 6 should be able to cover at least a distance of 1km a day and therefore the basic target has been set at 4km per week.

The aim of the Marathon Award is to encourage regular sustained activity rather than excessive exercise all at once. With this in mind, no more than 2km per day will count even if a greater distance is covered. Although excessive mileage is advised against, there is no harm in children walking or running further provided it is restricted to a moderate pace.

Secondary - Years 7 and 8 (ages 11-13)

The challenge at this age is to achieve two marathons (there and back!) giving a total of 84.39 km within the period of a school term.

This test gives a weekly average requirement at about 8km per week with a maximum 4km to count in any one day. To achieve this, athletes will require a minimum of two runs a week which is well within the scope of keen endurance runners at this age. Those who are less fit could tackle the challenge by running or walking shorter distances more frequently.

Aviva UKA Academy Endurance Awards - Individual Marathon		
	Primary	Secondary
Distance to be covered	42.195km	84.39km
Maximum distance to count in any one day	2km	4km
Approximate average weekly distance required	4km	8km

Individual Record Cards are available at www.sportshall.org/endurance

AVIVA UKA ACADEMY ENDURANCE TEAM AWARDS

The Aviva UKA Academy Endurance Team Awards are based on the established endurance training practice of using repetitions in the form of continuous relays.

PRIMARY SCHOOLS 1500M TEAM CHALLENGE (YEARS 5 & 6, AGES 9-11)

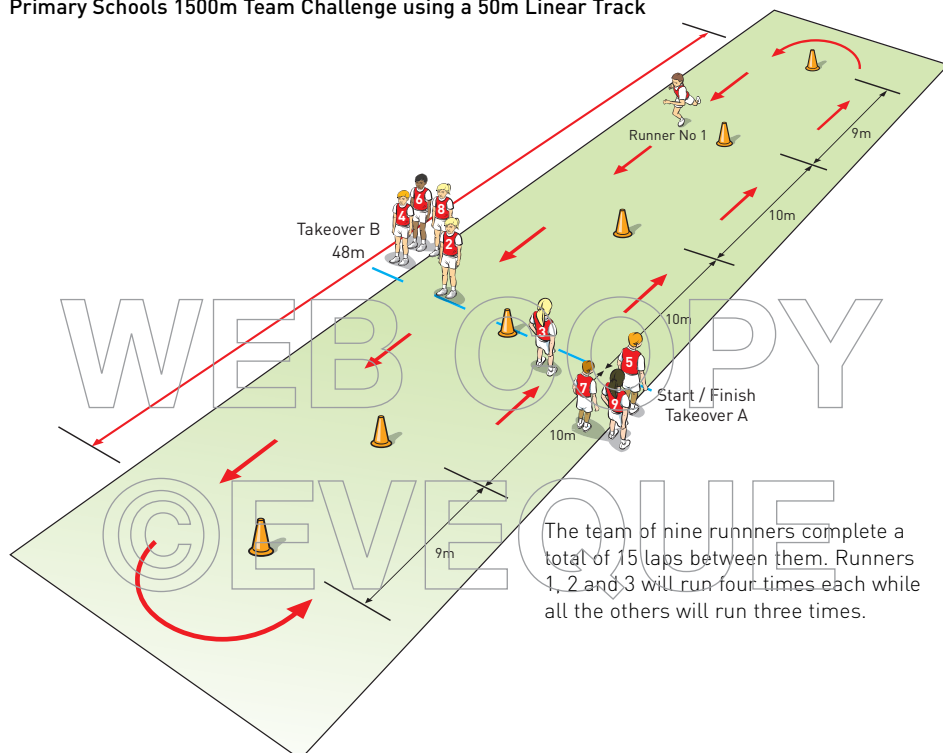
This relay is designed so that it can be held on either a standard 400m track or on an improvised track marked with cones which can be laid out within five minutes. As these relays take around four to five minutes to complete, they lend themselves very well for use within a school lesson period. They also work well as after-school activities or as part of a school sports day, the only equipment required being cones, relay batons and a stopwatch.

The challenge for schools is to see if they can equal or better the time set by Kelly Holmes when she set the British 1500m record of 3 minutes 57.9 seconds.

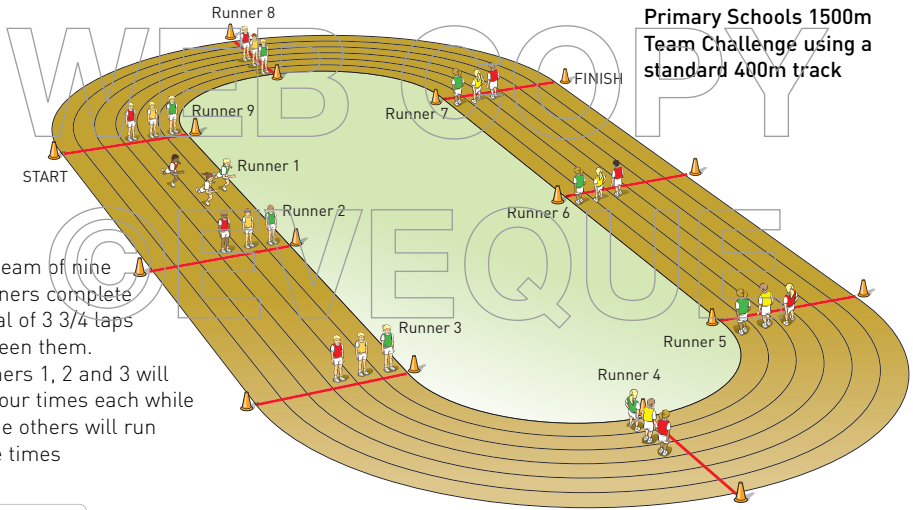
Teams of **nine** children are required which can be all boys, all girls or mixed. Three team members will run four times each over 50m sections and the other team members will each run three times.

We realise that all children wishing to take part should be accommodated so spare children can be asked to partner a friend in one section, running together and pacing each other. They can agree who carries the baton or carry it on alternate sections.

Primary Schools 1500m Team Challenge using a 50m Linear Track



The team of nine runners complete a total of 15 laps between them. Runners 1, 2 and 3 will run four times each while all the others will run three times.



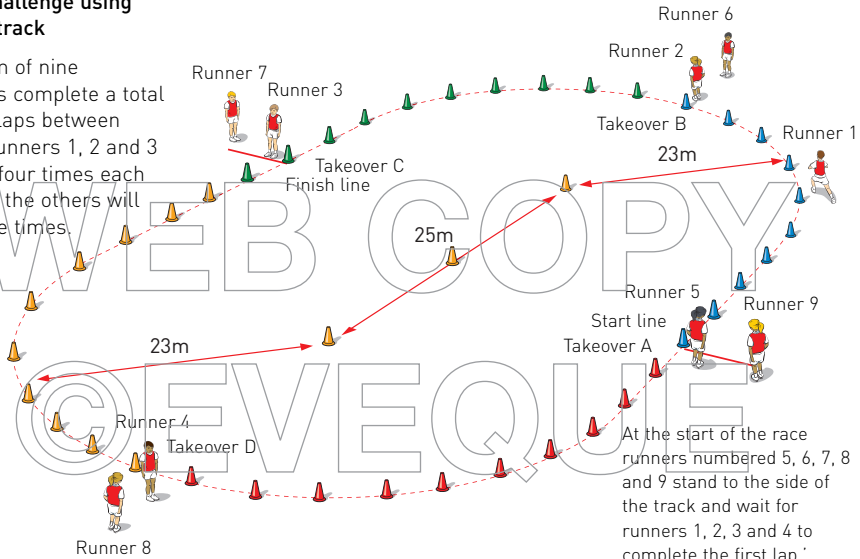
Primary Schools 1500m Team Challenge using a standard 400m track

The team of nine runners complete a total of $3\frac{3}{4}$ laps between them. Runners 1, 2 and 3 will run four times each while all the others will run three times



Primary Schools 1500m Team Challenge using a 200m track

The team of nine runners complete a total of $7\frac{1}{2}$ laps between them. Runners 1, 2 and 3 will run four times each while all the others will run three times



At the start of the race runners numbered 5, 6, 7, 8 and 9 stand to the side of the track and wait for runners 1, 2, 3 and 4 to complete the first lap.

Aviva UKA Academy Endurance Awards - Primary Team Awards

Gold Award	Equalling or bettering Kelly Holmes' time of	3 minutes 57.9 seconds
Silver Award	Equalling or bettering the time of	4 minutes 07.0 seconds
Bronze Award	Equalling or bettering the time of	4 minutes 15.0 seconds

SECONDARY SCHOOLS 5000M TEAM CHALLENGE

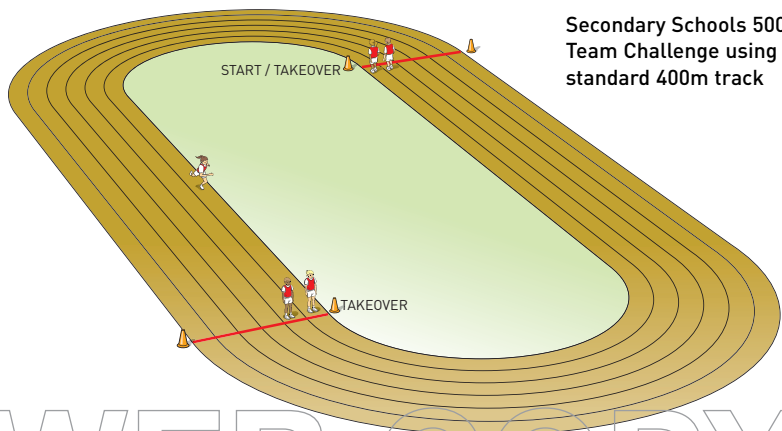
This challenge is a 5000m Continuous Relay for teams of five girls or five boys running in sequence over over 200m sections until each team member has run five times.

School Year 7

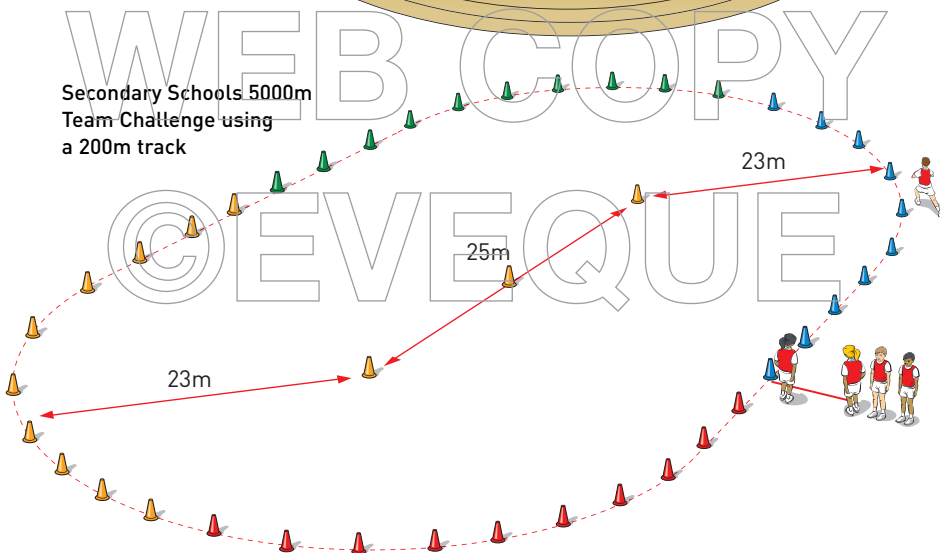
The girls' teams are challenged to equal or better Paula Radcliffe's current 5000m British Record of 14 minutes 29:11 seconds whilst the challenge for the boys is to equal or better Mo Farah's current National Record of 12 minutes 57.94 seconds. For year 7 children this is quite a stiff test with the girls having to average 34.76 seconds over their 200m runs and the boys to average 31.12 seconds.

School Years 8 and 9

Higher standards have been set for years 8 and 9. School Teams achieving the standards will be entitled to the National Team Awards.



Secondary Schools 5000m Team Challenge using a standard 400m track



Secondary Schools 5000m Team Challenge using a 200m track

Example

This is an example of a record card for a team of five girls from school year 8 running a continuous relay in sections of 200m with each team member being required to run five times. This relay can be run on a 400m traditional track or on a 200m track marked with cones on a field or an all weather area.

Judging sheet example for 5000m Team Challenge

Team/school		Westfield Secondary					Age	12-13 Years	
Boys/Girls		Year 7 Girls					Date	18/09/2010	
		SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5			
1	Katie	SPLIT	35.1s	34.7s	35.4s	38.1s	36.9s	INDIVIDUAL TOTAL	3m 00.0s
		TIME	-	3m 26.8s	6m 25.4s	9m 21.5s	12m 18.7s	AVERAGE	36.0s
2	Lucy	SPLIT	33.0s	37.8s	37.2s	36.3s	35.2s	INDIVIDUAL TOTAL	2m 59.5s
		TIME	1m 08.1s	4m 04.6s	7m 01.5s	9m 57.8s	12m 53.9s	AVERAGE	35.9s
3	Amy	SPLIT	37.1s	35.4s	34.0s	34.8s	33.6s	INDIVIDUAL TOTAL	2m 54.9s
		TIME	1m 45.2s	4m 40.0s	7m 35.7s	10m 32.6s	13m 27.5s	AVERAGE	35.0s
4	Ella	SPLIT	34.0s	34.2s	33.7s	36.1s	34.7s	INDIVIDUAL TOTAL	2m 52.7s
		TIME	2m 19.2s	5m 14.2s	8m 09.4s	11m 08.7s	14m 02.2s	AVERAGE	34.5s
5	Shari	SPLIT	32.9s	34.9s	34.0s	33.1s	39.0s	INDIVIDUAL TOTAL	2m 53.9s
		TIME	2m 52.1s	5m 49.1s	8m 43.4s	11m 41.8s	14m 41.2s	AVERAGE	34.8s
							FINAL TIME:	14m 41.2s	

In this example each team member would be entitled to a silver award.

The format encourages team spirit as the athletes are relying on each other. The continuous relay format mimics the well-established 'interval' training routine turning it into an exciting and fun form of team competition.

The schedule of targets for the awards also gives the average time for the 200m metre sections which presents each team member a personal challenge to improve their average for five runs over 200m. This calls for a demonstration of good pace judgement.

Aviva UKA Academy Awards - Secondary 5000m Team Challenge

5000m Challenge							
Distance: 5000m				No. of legs: 25 x 200m			
No. in team: 5 Girls or 5 Boys				No. of laps of a 200m / 400m track: 25 / 12.5			
		Bronze		Silver		Gold	
		Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg
Year 7	Girls	15m 25.00s	37.00s	14m 50.00s	35.60s	14m 29.10s	34.80s
Aged 11-12	Boys	13m 50.00s	33.20s	13m 20.00s	32.00s	12m 57.90s	31.10s
Year 8	Girls	14m 50.00s	35.40s	14m 10.00s	34.00s	13m 50.00s	33.20s
Aged 12-13	Boys	12m 50.00s	30.80s	12m 20.00s	29.60s	12m 00.00s	28.80s
Year 9	Girls	14m 10.00s	34.00s	13m 40.00s	32.80s	13m 20.00s	32.00s
Aged 13-14	Boys	11m 50.00s	28.40s	11m 20.00s	27.20s	11m 00.00s	26.40s

SECONDARY HALF MARATHON TEAM CHALLENGE

These exciting challenges give children the opportunity to tackle national and world records as a team. Aviva UKA Academy Awards can be gained by teams who achieve the standards. Both half or a full marathon distance in 200m legs. Please note that in each case the first leg is shorter than the rest.

Aviva UKA Academy Endurance Awards Half-Marathon Team Challenge							
Distance: 21097.5m				No. of laps of a 400m track: 52 laps plus 297.5m			
No. in team: 15-21 Girls or 15-21 Boys				No. of laps of a 200m track: 105 laps plus 97.5m			
No. of legs: 105 (1 x 97.5m, 105 x 200m)				No. of reserves: up to 3 reserves may be used			
		Bronze		Silver		Gold	
		Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg
Year 7 Aged 11-12	Girls	1:10:00	39.8s	1:07:30	38.4s	1:04:00	36.4s
	Boys	1:07:00	38.1s	1:04:00	36.4s	1:01:00	34.7s
Year 8 Aged 12-13	Girls	1:07:00	38.1s	1:04:00	36.4s	1:01:00	34.7s
	Boys	1:03:00	35.8s	1:00:00	34.1s	0:57:30	32.7s
Year 9 Aged 13-14	Girls	1:04:00	36.4s	1:01:00	34.7s	0:58:00	34.0s
	Boys	0:58:00	34.0s	0:56:00	31.8s	0:53:30	30.4s

British Women's Record Holder: Paula Radcliffe; 65mins 40s, Great North Run, 21st Sept 2003

World Women's Record Holder: Lornah Kiplagat; 66mins 25s, Udine, 14th October 2007

British Men's Record Holder: Steve Jones; 60mins 59s, Great North Run, 8th June 1986

World Men's Record Holder: Zersenay Tadese; 58mins 23s, Lisbon, 21st March 2010

SECONDARY MARATHON TEAM CHALLENGE

Aviva UKA Academy Endurance Awards Marathon Team Challenge							
Distance: 42195m				No. of laps of a 400m track: 105 laps plus 195m			
No. in team: *32 Girls and Boys				No. of laps of a 200m track: 210 laps plus 195m			
No. of legs: 105 (1 x 195m, 210 x 200m)				No. of reserves: up to 3 reserves may be used			
		Bronze		Silver		Gold	
		Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg	Target Time (h:mm:ss)	Average time per 200m leg
Year 7 Aged 11-12	Girls & Boys	2:13:00	37.8s	2:10:00	37.0s	2:07:00	36.1s
	Girls & Boys	2:08:00	36.4s	2:04:00	35.3s	2:00:00	34.1s
Year 9 Aged 13-14	Girls & Boys	2:03:00	35.0s	1:58:00	33.6s	1:53:00	32.1s

British & World Women's Record Holder: Paula Radcliffe; 2hr 15mins 25s; London Marathon, 13th April 2003

British Men's Record Holder: Paul Evans; 2h 07m 13s Chicago Marathon, 20th Oct 1985

World Men's Record Holder: Haile Gebrselassie; 2:03:59

School teams equaling or bettering the target time would be entitled to an Aviva UKA Academy Endurance Award. For more information on competitions using the above relays, including internet competitions, please visit www.sportshall.org/endurance

Details of target times for single sex teams can be found at www.sportshall.org/endurance

Current UK best performances are taken from www.thepowerof10.info World best performances are taken from www.iaaf.org

AWARDS BADGES & CERTIFICATES

Aviva UKA Academy Awards – Badges and Certificates

A full range of quality Award Badges and Certificates are available to reward and celebrate the achievements of all participating children. To order **Aviva UKA Academy Awards Badges and Certificates** please visit www.eveque.co.uk/awards

Aviva UKA Academy Awards – Posters

Quality instructional Posters detailing **Aviva UKA Academy Awards** are available from www.eveque.co.uk/awards

Aviva UKA Academy Awards – Personal Score Cards

Downloadable Personal Score Cards are available for all participating youngsters from www.eveque.co.uk/awards. Children can record their performances and their teachers or coaches can sign to verify their achievements are correct.



UKA AND AVIVA

UK Athletics is a world leading sporting organisation delivering clear and inspirational leadership for athletics to ensure a vibrant and empowered sport at every level that can evolve to meet every challenge.

It is the mission of both National Governing Body and Sponsor to make it easier for athletes of today and tomorrow to achieve their dreams. In addition to the ongoing support of the Aviva GB & NI Team, Aviva are also giving every child in the UK the opportunity to get involved in athletics, creating a long-term legacy for the sport and unearthing more champions along the way.

As a child begins their education they can experience athletics as the sport invests in the development of the teaching workforce, using Aviva Elevating Athletics as the toolbox for curriculum delivery for Primary and Secondary education.

The sport is targeting the teacher both in the classroom and whilst in training, in higher and further education. In school, pupils will gain from use of the recently enhanced Aviva Elevating Athletics ensuring that practical delivery focuses on athleticism and then builds technical basics in each event area.

The child and teacher can then "test" the experience by using the Aviva UKA Academy Awards to challenge newly learnt or developed skill levels in a series of age based awards that can be delivered event by event or in combined event templates.

As a child seeks to build their involvement in the sport, Aviva Startrack offers an enhanced extracurricular experience that creates a transition from the formality of the classroom towards the club and competition environment of the broader sport. Qualified coaching staff use Aviva Elevating Athletics and the Aviva UKA Academy Awards to deliver Aviva Startrack schemes on school, club and local authority programmes after school, at weekends and during school holidays, all year round.

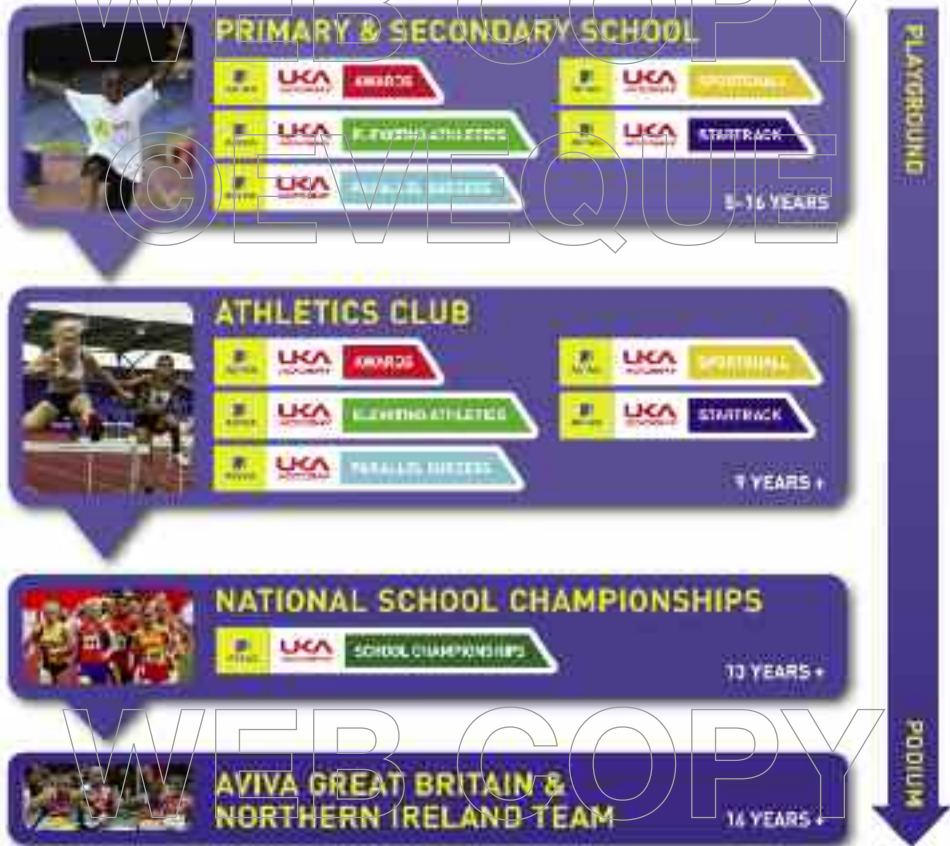
As a child seeks to compete and challenge their peers, Aviva Sportshall steps in to offer fun but highly competitive activity as well as curricular support that is being used year round. Teams from schools, clubs and local authorities use a common template to offer the 8 to 15 age group team and individual based competition that mirrors the next level of more formal competition.

For the child seeking to perform in competition for their secondary school, Aviva's investment in the Home Country Schools Athletics Associations means that they will continue to be able to compete at the highest level of UK Schools competition and onwards to their first "International" vest. The English Schools Championships and the Celtic nation equivalents have delivered high quality competitive opportunities for many years and are world-renowned, carrying a strong tradition that has borne Olympic Champions and World medalists from previous championships.

UKA is committed to working with the Home Country Athletics Federations in order to deliver the Aviva grassroots products and programmes at the most appropriate point in the athlete pathway. This work will develop a stronger curricular presence for the sport, supporting teachers and teachers in training, offering competition alongside education and ensuring that talent can make the transition to the next level.

For further details and to join
www.uka.org/academy

ATHLETE STEPS



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ENGLAND

Other Schools and Club programmes:



England Athletics strongly believes in an inclusive approach and that the quality of experience a young person receives in both the school and club environment is crucial to retaining them in the sport. With this in mind, we have been working in close partnership with Sportshall Athletics and QuadKids over the past few years to provide a comprehensive development plan which covers skills, awards and competition in schools, clubs and community environments. Both these modified formats offer a multi-skills approach which we believe is essential in athlete development and can easily be adapted to include disabled athletes.

For more information please visit www.sportshall.org and www.quadkids.org.uk

For more information about disability athletics www.englandathletics.org/disabilityathletics



Athletics 365 is a multi-event, development programme for 8-15 year-olds which introduces athletes to the fundamental skills of athletics (vital to every sport). Athletics 365 focuses on developing the technical skills required to realise full potential and reinforces the importance of a good all round skill base. In addition to technical skills, Athletics 365 also looks at an athlete's physical, mental and emotional development, as well as their lifestyle and social development.

The Athletics 365 programme is broken down into nine progressive stages with each stage providing athletes with new and progressively more difficult challenges appropriate to their stage of development.

For more information please visit www.athletics365.org



Run in England is a community based running project which gives everyone an opportunity to get active and begin running for fun and fitness. Supported by Sport England, we are delivering community running groups across the whole of England.

Delivered by the Run in England team, Run in England 3-2-1 is a community based initiative where we work with schools and local councils to provide safe measured courses in school grounds, parkland and open spaces. It isn't about races or times; it's about participation for all and offers support for complete novices. For more information please visit

www.runinengland.co.uk

The English Schools Athletic Association (ESAA)



The English Schools Athletic Association's competitions are well established, globally respected and offer a tremendous experience for youngsters through all of their competition formats. The ESAA have a long history of their championships, cup and representative competitions helping athletes in their progression from enthusiastic school children through to success as seniors. Many of our greatest athletes have fond and exciting memories of English Schools' competitions, even if for some their 'successes' did not begin until later in their athletics careers. For more information please visit www.esaa.net.

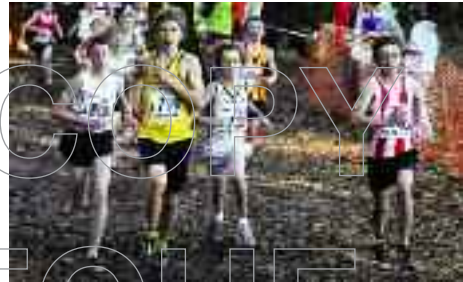
English Cross Country Association (ECCA)

The English Cross Country Association (ECCA) has been charged with responsibility for:

- Organising and managing English national cross country championships - The "National" and the National Relays. All Clubs that are affiliated to England Athletics for cross country team competition may enter ECCA events.
- Selecting athletes to represent England in cross country competition and managing those teams
- Promoting and supporting the development of cross country running.

The ECCA is delighted to support this publication and recognises its value in promoting endurance running for children generally and cross country running as a part of that. Participation in cross country running is a valuable means to encourage children to improve fitness through sustained activity. The guidance contained here will help to promote this principle through team and individual initiatives in an enjoyable structure. It is important that children are not introduced to formal training too early and critical that they are not allowed to undertake too much training - it must be balanced with all other exercise that they take part in. Above all endurance running must be promoted as a fun activity - if it's not enjoyable then children will vote with their feet - and not in the way you want!

Full information about ECCA activities can be found at www.englishcrosscountry.co.uk



England Road Running Association

Runners of all ages can compete in the National Road Relays organised by the England Road Running Association in which all affiliated clubs can participate. For more information please visit the Road Running section of www.Englandathletics.org

SCOTLAND, WALES AND NORTHERN IRELAND

Scottish Athletics

Scottish Athletics and the have a range of youth initiatives for youngsters. Aviva Sportshall Primary is delivered across the country with regional finals for schools during the winter.

Talented athletes are provided with the opportunity to join Run, Jump and Throw Community Clubs and progress into the Bank of Scotland Development Squads. The Junior jogscotland

programme is going down a storm, with over 1200 primary schools and youth groups across the country using the Junior jogscotland resource pack to help get our youngsters enjoying physical activity so much that they make healthy choices as they grow up.

More information please visit www.scottishathletics.org.uk and www.jogscotland.org.uk

The Scottish Schools' Athletics Association organises competitions for indoor, cross-country and track and field. For more information please visit www.ssa.co.uk



Welsh Athletics

Welsh Athletics and the Welsh Schools Athletics Association have proud histories and a great track record. By providing structure, they aim to create a seamless pathway from regional schools and clubs, to national elite performance. They support grass roots activity and translate this into national sporting success. Welsh Athletics is

dedicated to improving athletics at both club and national level and targets improved development, education and performance. Aviva Sportshall is promoted at both school and club level along with Aviva Elevating Athletics and Startrack.



The 30, 40, 50 Club is an 'Endurance Initiative' for schools that was launched by Welsh Athletics back in 2001 supported by Sport Wales. Welsh Athletics is well aware of the declining level of fitness in young children and is seeking to remedy this by encouraging distance running in. Children will be encouraged to walk, jog or run a measured one mile course within the school grounds, or over a circuit in close proximity to the school. Resources for maintaining records and advice are available on the website.

For more information please visit www.welshathletics.org

Northern Ireland

'Athletics Northern Ireland will create the best environment for everyone in the sport to achieve their maximum potential'.

The Athletics NI Development Team delivers many development initiatives, including club development and coach education. Some initiatives include: Aviva Sportshall / Startrack and Elevating Athletics, 30, 40, 50 Club and League, ANI Junior Cross Country Squad, ANI Fundamental Programme through Athletic Networks, Rising Stars and the Youth Academy.



The Ulster Secondary Schools' Athletics Association is the controlling organization of athletics in secondary schools in Ulster: their objective is to promote and encourage track and field athletics and cross country running in secondary schools with membership of the association is open to any Secondary School in Ulster. For more information please visit www.ussaa.co.uk

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