

# Athletics

## **FUN**damentals



Sprints – Middle Distance – Relays - Hurdles - High Jump – Long Jump – Triple Jump – Discus – Shot Put

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# Athletics **FUN** damentals





## Athletic **Fun**damentals

A guide for improving skills of young athletes



***Excellent running form –***  
Head looking straight ahead, not up or down;  
jaw relaxed; shoulders low and loose;  
hips, shoulders and head in a straight line –  
***see page 14 “Things to Look For”***

4 November 2015

## WHAT IS A COACH

If you say “well done” to your son or daughter or a young athlete you are a coach

If you ask how she or he went at an event, you are a coach.

When you yell encouragement to a competitor, you are a coach.

If you have driven someone to training or competition, you are a coach.

I define a coach as anyone who “maximises the potential of an athlete” – at whatever level.

Driving an athlete to training contributes to this.

So let's not be afraid of the word “coach”.

**You are a coach**, whether you see yourself as one or not.

1. Encouragement is perhaps coaching at its most basic level.
2. There are many levels, and none are any more important than any other.
3. The next level is being able to help an athlete avoid mistakes and errors – making sure the athlete is not doing something wrong.
4. Then there is the adding of skills, teaching the right way to do something.
5. Then there are the many, many layers of adding more skills.
6. Then you have the layers involving planning, strategies, tactics, psychology –
7. For example, defining the mesocycles and microcycles then determining the objectives of each then planning training units within each cycle that will meet the chosen objectives to have an athlete at their peak on the right day.

Coaching is many layers ... and the last mentioned is no more or no less important than teaching basic skills or trying to eliminate technique errors in a 10 year old.

Some people will coach at the first one, two or three levels ... others will coach at different levels but the most elite coach still must be able to operate at any level.

This handbook and course is about the second and third levels – eliminating errors and adding basic skills.

Finally, words from Franz Stampfl, one of the great athletics coaches of all time, describing what it is to be a coach...

*“...when the shouting is over, when the senior partner in the firm has broken the record and joined the immortals, the junior partner's reward comes from the satisfaction of a job well done. Who could ask for more?”*

Indeed, but note, the coach is the junior partner, the athlete the senior partner. We must always bear in mind that it is the athlete's sport, we as coaches at whatever level, are there to support.

## WHAT IS A WINNER

The emphasis here is on the FUN of FUNDAMENTALS. Sport is fun. Children do athletics for just one reason – they want to have fun. Doing something well, succeeding, learning a skill all adds to the fun.

Competition is the purpose of our sport. Winning is the purpose of competing. However, winning is not necessarily coming first. It can be finishing higher in the field than last time, jumping higher, jumping better, learning about and applying tactics, it can be an athlete learning something new about themselves or the sport, it could be accepting and meeting a challenge.

**Most of all, it's having fun. If you're enjoying yourself how can you be a loser?**



### **THE ATHLETE FIRST.**

A club helper or coach should never lose sight of the fact that the focus of their activities is the athlete. It is not the sport, not their club, not the school or squad and certainly not their own ego or personal satisfaction.

Put the athlete first and the club and sport, not to mention the coach's reputation and satisfaction, will all benefit in the long run.

## AGE AND ATHLETICS

Young athletes develop at different rates and growth patterns vary considerably. Also, individuals can have limbs or parts of the body growing at different times and rates, so a youngster is unfamiliar with his or her own body. Skills that were previously easy may prove difficult, coordination can be lost. You need to recognise that bodies change through growth. The good 10 year old may be an average senior competitor; the average 11 year old may develop into a brilliant senior.

- To 10 – play. Make training based around games – avoid suggestion of “training”. Children this age consider sport as social activity, so make it so. At this stage youngsters have developed neural system so can absorb learning. This is when they can start to learn basic technique and skills.
- 10 – 14 – learning. Now is the time for skill development as the neural system is well developed – bad habits learnt now are difficult to undo, good habits learnt now are there forever. Children this age have little anaerobic capacity so avoid heavy anaerobic work and there is limited response to aerobic training so there is little potential to develop  $VO_{2max}$ . Athletics should still be fun based – fartlek, games – circuits. This is the time to encourage young athletes to look ahead, to do some goal setting.
- Adolescence – 12 +. “Age of confusion” handle with care. Emotional instability, physical instability. With the different growth rates in the body performances can be inconsistent and there is danger of injury. The athlete should now start to specialise, although attention should be paid to other skills and athletic events as well. Focus on fewer activities – skill development – make challenges, but tailor activity to the athlete, not athlete to the activity.
- 16 up are the **investment years**. Athletes want to be the best they can be – now is practise rather than play – key is performance.

Consider it takes 10 years to master any skill – 10 years to develop a sprinter and 15 years for the neural patterns to fully develop the skill (i.e. to learn to sense an action before it is sent to the muscles!)

Another way of looking at it is 4 years of train to play – 4 years of train to train – 4 years of train to compete (event specific now) – then train to win. This is 12 years of development which is 3 Olympic cycles. **And the most important is the first part – the fun of FUNDamentals**



## WARMING UP



Warming up and stretching should be a part of every athletic activity, practise as well as competition. A proper warm up will take 10 to 40 minutes and the time needs to be structured into the event or session planning. (Senior athletes can take an hour or more in their warm up and event preparation.)

First, have the children jog easily for 3 to 10 minutes (depending on age and time available). Make sure it is an easy jog – youngsters tend to turn this into a race that defeats the purpose of pre-race preparation. Walking is better than running too fast – you don't want the athletes to be puffing at any stage. Purpose is to raise the body temperature slightly and warm up the muscles (including the heart, which of course, is a muscle.)

The normal static stretching routines have been proven to be ineffective; indeed, static stretches actually slow you down. When do athletes hold a muscle in a stretched position for any period of time in their event? Never. So it makes sense to stretch with activities and movements that are similar to what is done in competition. Also, standing around doing static stretches loses all the benefits of the warm up – you cool down while stretching.

It is important when doing drills as part of a warm up (and at all other times too) that they are done correctly. **You must practise the way you compete.**

If athletes are not technically sound during the warm-up they won't be technically sound in competition when it matters. The warm up is not a time for fooling around, but is the foundation for the races or competition to follow.

### **ACTIVE STRETCHES FOR WARM UP.**

Examples of activities that can be incorporated into a pre-competition or training active stretch routine. Start with easier activities and increase the intensity as you go.

Toe and heel walks

Lunges

Backward runs

Skips – gentle, fast and for height.

Sideways runs, both to left and right.

Bouncing up on down on the spot using the ankles.

Leg swings, both side to side and forward-back.

Fast but relaxed 20 to 30m stride out sprints.

Sprint technique drills (high knee walk, high knee run, butt kicks).

Running over mini hurdles.

Arm drives. (Arm running action while the athlete is standing still making sure effort drives arm back, not forward, and arm kept close to 90 degree angle at elbow with pivot at shoulder, not elbow. Can be done standing and sitting

Arm windmills.

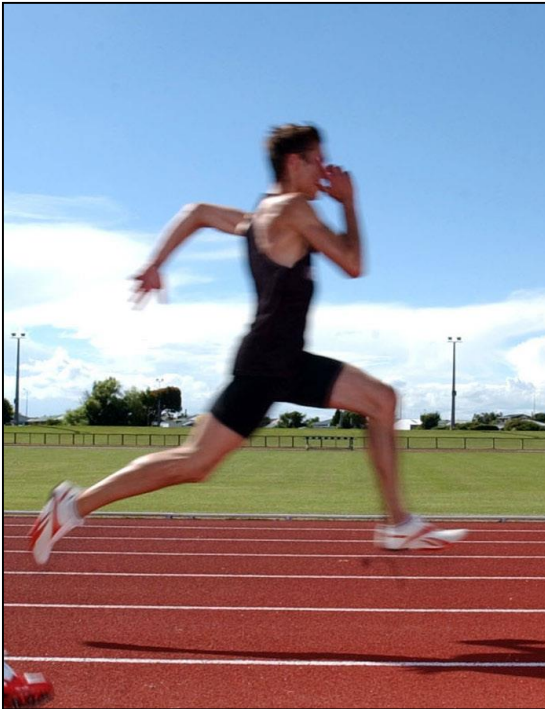
Games such as soccer or touch football to add variety.

You can even devise a warm up routine and do to music.

Whatever you do, try to make it fun, make it varied and make as much of the activities specific to the event to be done (i.e. emphasise running activities prior to running races, skips and bounds before jumping etc.) A fun way to warm up is play “snake” or follow the leader – the group lines up single file behind the leader who does series of warm up type activities on the run with everyone else copying as they run behind like a “big snake”. Activities are limited only by the imagination of the leader and the teacher. Children take turns in being leader. Any activity that prepares the muscles for what is ahead, warms the children up and is fun is good.



# SPRINTS



The two essentials of sprinting are relaxation and technique. Strain adversely affects technique and wastes energy, slowing the runner down. Relaxation and correct running style can be taught and needs to be practised.

Look for the following as athletes run:

## **RELAXATION.**

1. Make sure there is no clenching of jaw. Face needs to be relaxed.
2. Shoulders should be loose and low.
3. Fists should not be clenched or tight.
4. Wrists need to be loose.

Relaxed running can be practised with accelerations and stride-outs.

## **RUNNING TECHNIQUE.**

1. Head on even plane – no looking up or down.
2. Arms at a right angle and driving back from shoulder. (No punching the air in front).
3. Run tall – hips forward with no backside sticking out or forward lean from waist.
4. Arms and legs short lever.
5. All movement must be towards going forward, not sideways – i.e. make sure hands don't go across the body rather than forward and back.

Note form of runners in picture right and above – running tall, short lever, head straight etc.

Technique is practised with drills. However, as it's not perfect practise that makes perfect, drills must be supervised unless the athlete is proficient in them. Doing drills incorrectly only develops bad



technique.

Drills are also used for speed and strength training as well as used in pre-race warm ups.

## **FINISHING**

Do not encourage dipping or diving at the line – young athletes are likely to dive or bend forward at the waist, which slows the runner down. Instead, have them imagine the finish line is 5 metres beyond the actual line and tell them to drive all the way to that point. You might want to identify a point (e.g. steeplechase hurdle beside the track) that the athlete should aim for. This also reduces the possibility of a runner slowing down before the finish and getting pipped on the line.

## **STANDING STARTS**

New Zealand Children's Athletics now determine that all ages use a crouch start for laned sprint events. Note, crouch start – this does not necessarily mean a block start. However a crouch start (and block start) is an extension of a standing start, the standing start can be taught to develop starting skills.

Front leg is the power leg, back leg the speed leg. Power leg concentrates totally on power, achieving as much push force as possible. Speed leg moves forward as fast as possible, with short first step (long stride becomes a long lever and slows down foot movement.) Make sure arms are correct, with "opposite arm" forward.

1. At "take your marks" athlete stands with power leg foot just behind line, back foot (speed leg foot) approx 30 to 40 cm behind front foot.
2. On "set", lower body and bend knees slightly, with weight over front foot. Arms in sprint position. Rules stipulate that there is no moving at the "set" position – even wriggling the heel can result in a break.
3. At "go" step out with back foot (speed) and drive hard off the front foot. Front foot pushes (power leg) – back foot moves fast (speed leg). Arms are driven vigorously.



## **CROUCH START**

The standing start leads naturally into the crouch start. Start described here is the “medium start”, the best option for children and teenagers.

### **Determining Feet Position.**

1. Place forward knee (power leg knee) on start line.
2. Rear knee is placed to toe or middle of front foot.
3. Blocks are set where feet are.

### **Take your marks.**

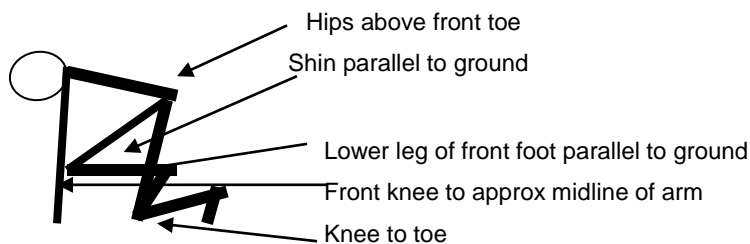
1. Hands are placed just behind the line with weight supported on fingers – fingers and thumb form a V. Hands are shoulder width apart.
2. Body weight divided evenly between hands and back knee – feel balanced.
3. Head relaxed, loose, hanging (not looking up at track or finish line)
4. Lower part of front foot leg (shin) parallel with ground.
5. Hip directly above front toe

### **Set.**

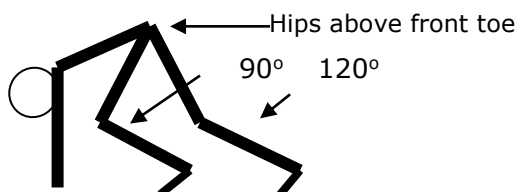
1. Raise hips slightly higher than the shoulders.
2. Shoulders directly above line – arms going straight up.
3. Front knee is approx 90° angle, back knee around 110° – 120°.
4. Head is looking down, not up – eyes on front toe

### **Go**

1. Drive hard with power leg with speed leg coming through – speed leg is first to move.
2. Arms driven hard.
3. Head is kept on natural plane or looking down slightly.
4. All movement must be forward, not up.



**“On your marks”** – rear knee level with point between front foot instep and toe. Weight over hands, arms vertical.



**“Set”**. Hips higher than shoulders, front leg 90°, rear leg 120° - shoulders above hands - head looking down, not at finish line.

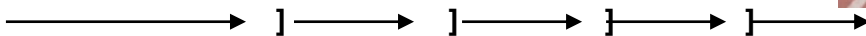
# HURDLES

Basic hurdling skills from noted hurdles and sprint coach Russ Hoggard.

Here's the place to start.

1. Realise that hurdling is not jumping over barriers but running over barriers.
2. Learn to lead and trail with both legs.
3. Learn from the start to run in a straight line over the hurdles.

Like this



Not like this



**STAGE ONE:** before running over a hurdle learn some static drills.

Rookies need to learn two drills. (These do not have to be at regulation hurdle height to start with.)

## DRILL #1.

Static trail legs. (optimum workload for rookies. 2 sets of 10 each leg.)

Set up a hurdle a short distance away from a wall or a fence so you can put the outside foot past the upright of the hurdle and lean forward and support their body weight against the wall. Now extend the inside leg backward and pull it over the top of the hurdle. (A duplication of the action a trail leg does during a race)

Coaching Tips: (Things to watch for and correct)

- (a) Look ahead all the time.
- (b) When the trail leg comes back it comes back straight and that the ankle does not turn until the trail leg starts to move forward.
- (c) At as soon as the foot has cleared the hurdle the knee is pulled high up into chest.

## DRILL #2.

Static lead legs. (optimum workload for rookies. 3 sets of 10 each leg.)

Stand 3 to 4 foot-lengths back from a wall or a steeplechase hurdle. Raise the lead knee high into the chest and drive it toward the wall/steeplechase hurdle. As the lead leg drives forward the top body dips toward the lead leg.

Coaching tips. (Things to watch for)



(a) That the arms never change from a natural sprinting action. (Preferably somewhere near a right angle.)

(b) That the lead leg is bent as it drives toward the hurdle/wall and never comes up straight.

Now put it into practise. Start with running over low obstacles – you could even use sticks or lines marked on the ground to get used to *running over* something rather than jumping it or reaching for it.

Then graduate to mini hurdles – space them three running paces apart so that the athlete gets used to a stride pattern. Don't worry whether it is the correct spacing for the event – make it the correct spacing for *that athlete*. Then you could place the mini hurdles 4 running paces apart, forcing the youngster to alternate lead leg.

As skill level improves gradually increase the barrier height until it is competition height.

(With thanks to Russ Hoggard)



Hurdling is also for distance runners – hurdling skills learnt early could be put to good use later on – maybe for steeplechase, and it's an essential skill in crosscountry

## DISTANCE AND MIDDLE DISTANCE



The key to distance running is efficiency – using as little energy as possible to run as fast as possible for the distance. Wasted energy slows the runner, and as in sprinting, tension wastes energy. Efficient running and good running technique go together. In middle distance races (800m/1500m) it is important to watch for

and correct errors in technique.

*“Good technique won’t guarantee you’ll be a good runner but bad technique guarantees you won’t be.”*

This is a quote from Peter Coe, father and coach of Seb. Whereas teachers/grade managers will not have much influence on young runner’s training, they are in the best position to help on running technique every training session.

### **THINGS TO LOOK FOR.**

1. Head looking straight ahead, not up or down.
2. Jaw relaxed, not clenched.
3. Shoulders low and loose, not hunched.
4. Elbows greater than 45°, i.e. not tight or the arms at an acute angle – hands should swing through at around hip height. Arms swing from the shoulders, not the elbows.
5. Hands and wrists totally relaxed, no clenching of fists.
6. No bouncing – if an athlete bobs get them to think about gliding along.
7. Hips forward – no bottom sticking out or bending at the waist. Hips, shoulders and head should be in a straight line – runners in the picture are showing good form. Note straight line of head, shoulders, hips and relaxed angle of arms. See also picture page 3.

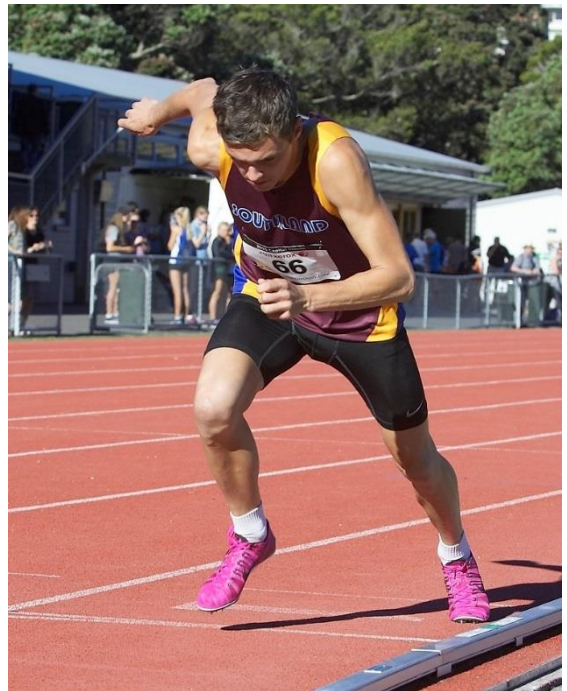


**STARTING.**

See standing starts in “sprints”. Make sure front arm is opposite side to forward leg, i.e. if left foot is the front one, right arm is forward. For unlaned starts, particularly the 1500m, have them take the shortest route to the pole lane, i.e. don’t cut in early.

**TACTICS.**

Emphasise to all runners that they should not go too fast early on, but to pace themselves. Tell them to run the inside lane, that running wide means running further. Point out that when they start the final kick home (over last 80m or so) to drive their arms, lift their knees and become a sprinter. Make sure they drive all the way to the line and not ease off just before the finish.



## RELAYS

With young athletes a visual baton change (receiver watches the incoming runner until the he or she safely has the baton) is all that's necessary, so for the first part of this section is sufficient for fundamental skills. However, details on non-visual changes



and establishing check marks is included should you be working with experienced young athletes. There is no reason why 11 and 12 year olds cannot learn a non-visual change *providing they have become proficient at a visual change.*

### **BATON CHANGES.**

**Beginners** use a visual change. Receiver stands inside changeover zone (note, do not use acceleration zone) with upper body turned to face down the track, left arm extended, palm up. Outgoing runner starts running hard when incoming runner is 2 or 3 paces away, keeping arm extended. Exchange should be downsweep. Outgoing runner then transfers baton to right hand.

Changes are always from right hand of incoming runner into left hand of outgoing runner.

### **CHANGEOVERS**

Children's teams should stay within the changeover and ignore the acceleration zone. (However young teenage runners can use the beginning of the acceleration zone as a check mark, with the outgoing athlete starting 5 to 6 metres inside the zone – outgoing runner starts when incoming runner hits beginning of changeover zone.)

Make sure the changeover is not too close to the far end of the changeover zone as the outgoing runner will slow down and lose momentum.

### **PRACTISE**

Practise the changes by having the athlete line up as in the "Training" section below. The athletes start with standing changes, (right hand into left hand, changing hands on receiving the baton) then progress to walking then to running. When the baton reaches the front of

the line with standing changes everyone about turns and the baton goes back the line. Walking and running practises have the baton placed on the ground when it reaches the front then picked up by the lat in the line and the drill repeated. Do not limit such practises to just four athletes – the line can be as long as you want to give as many young athletes as possible the opportunity to practise.

***(The above is all you need to start with – however the rest of this chapter is included for those who want to go beyond the “fundamental” level and work with your club relay teams, particularly the older children competing in interclub events or Colgates.***

Experienced Athletes

**Experienced athletes** change blind – no looking. (Note, young athletes should practise and become confident with a downsweep visual change before considering other changes.)

Once the outgoing runner sees the incoming runner hit the check mark he or she starts aggressively as if going from the gun. Incoming runner continues at full speed and yells “Hand” at the point where the baton can be passed.). Outgoing runner extends arm back to receive baton. It is up to the incoming runner to place baton in the hand as receiver is not watching. Outgoing runner starts when incoming runner is approximately 4 metres away. (8 metres for men, 6 metres for women) This is where the check mark on the track is placed.

### **TYPES OF CHANGES**

There are three accepted change techniques. As mentioned, for children’s club or primary school teams the downsweep and visual change is recommended.

**Downsweep.** Receiver’s hand is held high with palm up and wide V between thumb and fingers. Baton is placed in the hand with a downward movement. Advantage is greater free distance between runners (free distance is distance baton travels without the runners having to). If change is when runners are side by side there is no free distance, and a change when arms are extended to

the maximum means optimum free distance. More free distance the better.) Disadvantage is receiver’s hand is not quite so steady.

**Upsweep.** Baton is placed in the hand of receiver with an upward movement. Receiver holds hand back with palm facing down and wide V between thumb and fingers. Advantage is safety, receiver’s hand is steady and incoming runner’s arm movement is a more natural sprinting action. Disadvantage is less free distance and smaller target (V rather than whole hand). There are two options for receiving the baton.

1). Palm up with thumb pointing in towards the body. This feels the most natural for young athletes but means if the baton is received as close to the end as possible (which it should) there is not enough baton for the receiving runner to grab.

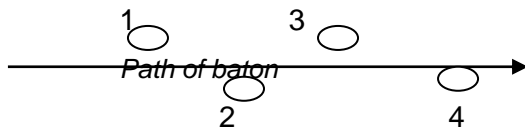
2). Palm down with thumb pointing away from the body. As baton is given end over end maximum amount of baton is available for each receiver.

**Push.** This is a variation of the downsweep – baton is pushed forward into the hand.

### Training

While young athletes will use a visual changeover, basics of a non visual alternate change can be learnt and practised once the visual change is mastered. Instead of receiving the baton in the left hand and transferring to the right the baton goes right hand – left hand – right hand – left hand. Baton stays in centre of lane with bend runners (1 and 3) carrying it in the right hand and running on the inside of lane) while straight runners (2 and 4) have baton in left hand and stand to outside of lane.

Start by developing timing, technique and coordination with standing exchanges – runners stand a bit less than two arm lengths apart and practise non visual changes. Runners stand in staggered line so baton travels in straight line: -



*1 has baton in right hand, passes to 2's left hand etc.*

Person with baton yells “hand” and passes baton with whichever technique is being used while receiver extends arm back to take baton. When baton reaches end of line everyone about turns and drill repeated. Extend this to jogging – when baton reaches front of the line it is placed on the ground to be picked up by person at rear. It is important that athletes get used to and practise timing of “hand” command and receiver reacts correctly. If command is too early or too late the entire change will be compromised, likewise if receiver does not react immediately to “hand” command.

Progress to same drill but running – increase pace as technique and confidence improves. When arm action and timing is satisfactory the athletes can practise changes with outgoing runner using standing start and incoming runner running around 40 metres at full speed. This is when check marks should be established.

## **BASIC RULES FOR RUNNING EVENTS.**

- Blocks and crouch start must be used for all events up to 400m including first lap of 4 x 400m relay.
- On “take your marks” both hands and one knee must be on the ground.
- At “set” hands are on ground and both feet must be in contact with blocks
- Hands or feet cannot touch or be over the start line or the touch or be outside the runner’s lane.
- Runners must take their marks when told to by the starter and any delay could result in a false start.
- At “set” the runner must stay still until the gun goes – any movement may be called a false start.
- An athlete who distracts or disturbs other competitors by movement or sound can be given a false start.
- A false start means disqualification. If you break you’re out – **so make sure your athletes know this rule.**
- For events up to and including 400m the commands are “on your mark”, “set”, then gun. Events over 400m there is only “on your marks” and gun. It pays to warn youngsters as sometimes they are waiting for the set when the gun goes and are left standing. In distance races (over 400m) athletes cannot touch the ground with hand or hands when starting, so no blocks, no crouch start with hands on ground.
- In laned events runners must stay in their lane or face disqualification – however if they stray out of the lane but gain no advantage or do not interfere with another runner they shall not be disqualified. For example going out of the lane on the straight or going outside the outer line on a bend is OK providing there is no interference.

### **Relays**

Relays require the baton to be exchanged within a 20 metres changeover zone. The outgoing runner can start his/her run 10 metres before the changeover zone to achieve maximum acceleration. (However, primary school athletes do not require 20 to 25 metres to accelerate to top speed so should stay within the changeover zone.)

- The baton must be exchanged within the changeover zone, although the athlete can be outside it, e.g. the receiving runner’s body is beyond the zone but backward reach of arm means the exchange was made within the zone.



- If the baton is dropped it can be retrieved providing there is no interference of another runner or a shortcut is taken.
- Runners must stay in their lanes after passing on the baton to avoid interfering with other teams.
- 4 x 100 relays are run entirely in lanes.
- 4 x 400 relays are in lanes for the first lap and the first 100m of the second lap – so second runner can cut to the pole lane at the arc line just after the first bend. (This should be coned or flagged).
- For 4 x 400m relays the third and fourth leg runners are lined up on the track from the inside lane in the order their team is placed at the 200m mark. So, winning team has lane 1, second team lane 2 etc. These positions shall not change even if team positions change.





# HIGH JUMP

## SCISSORS

The scissors leads naturally into the flop – bad scissors habits become bad flop technique. It is important young jumpers learn and master the scissors before starting on the flop. (Scissors jumps are an important part of experienced jumpers' flop training.)



1. Measure a 5-stride run up – any longer is inefficient. (Some may want to go to 6 paces – if so, let them) The jumper should be running their fastest at take off, not half way through the run up as happens with the long runs favoured by young jumpers.
2. Run up approximately 30° angle to the bar.
3. Take off mid-way between centre of bar and nearest upright, which means the jumper clears the bar at its mid-point.
4. Ensure take off foot is in front of hip and hip is ahead of shoulder.
5. Develop strong drive UPWARDS of lead (inside leg).
6. At the same time there must be a strong upward drive of arms.
7. Develop an accelerating run up with feet rhythm of ONE ..... TWO ..... ONE-TWO-THREE. First two strides relaxed, final three fast. (Or, with 6 paces: ONE ... TWO .....THREE-ONE-TWO-THREE.)
8. When lead foot over the bar the leg is driven down hard towards the mat, helping drive the take off leg up and over.
9. Ensure jumper does not lean in towards bar.

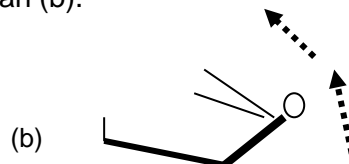
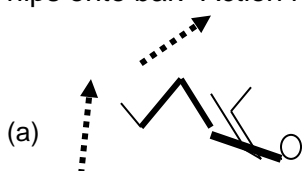
## THE FLOP

The flop is a progression from scissors. Important aspects to watch are:

1. Run up is accurate (see next page)
2. Athlete is in control throughout run up, i.e. is not trying to go too fast and losing co-ordination and technique.
3. Run accelerates in pace.
4. Run up is “J” shape and curve retains the arc (see next page).
5. Take off foot must be ahead of knee and hip, with hip ahead of shoulders.
6. Take off foot should be pointing INSIDE the far upright, i.e. avoid having foot parallel to bar.



7. At take off jumper should be eyeing the bar upright with eyes looking along the bar at clearance – do not look down at mat.
8. Avoid reaching over bar with inside arm or leaning towards bar – force must be vertical, not lateral. When takeoff foot hits ground arms should be low, when take off foot leaves ground arms should be high – i.e. drive arms and lead leg vigorously up.
9. When hips are over the bar the feet are raised up to clear bar. Watch for and correct any tendency for jumper to raise torso from waist, which puts them in a pike position and lowers hips onto bar. Action needs to be (a) rather than (b).

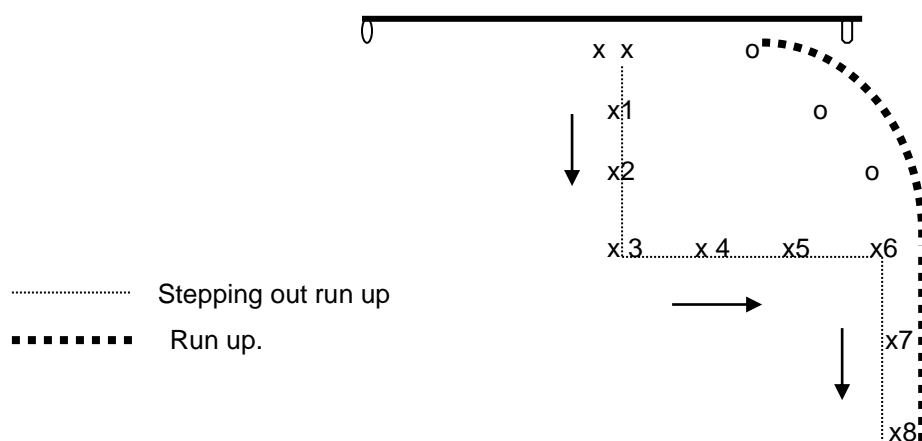


THIS .....not ..... THIS

Progression from scissors is taught by:

1. Back flips – make sure jumper lowers hip, drives heels back under body.
2. Polish twists – feet point straight ahead at take off, no anticipating the turn.
3. Running in arc to get used to inwards lean.
4. Practise run up, particularly the ONE .....TWO .....ONE..TWO..THREE rhythm.
5. Practise hitting second check mark accurately.
6. At practise concentrate on one aspect at a time before moving onto the next. Jumper should concentrate on the one skill being practised, get that right then progress.

### **MEASURING 5-PACE HIGH JUMP RUN UP FOR FLOP.**



(see notes next page ...)

1. Start in centre of bar with back to bar approx half an arm length out from the bar. Take three large strides straight out. (To x3)

2. Take three large paces parallel to the bar to the side the jumper jumps from – when facing away from the bar left footed jumpers turn to the left, right footed jumpers to the right. Mark the spot at x6.
3. Take two paces straight back and mark the spot (x8)
4. Run up is a “J” shape, NOT a “C” or opened up “L”.
5. On the run up start at x8 with feet together. First step is with take off foot. Run the two paces to the mark at x6, staying in control and with relaxed, accelerating rhythm.
6. Outside foot (for left footed jumpers this is the right foot) must land beside the x6 mark.



7. Next three paces are on a curve, taking the jumper to take off position.

Important that the jumper hits the mark at x6 – this is the key to arriving at correct take off position. First two paces are relaxed, final three paces fast.

Run up rhythm is ONE .....TWO .....ONE..TWO..THREE.

It is important that the run up is on a curve and the athlete is leaning in towards the centre. The change in direction from straight-ahead to curve (at x6) must not be a side step. Look for the feet pointing in the direction the athlete is running at all times, i.e. no crabbing, no side step. And make sure the curve is a full quarter circle with an appropriate arc.

When the jumper gets accomplished and confident the run up can be increased to 3 paces out, three paces to the side and four paces back to give a seven pace run up.

## **BASIC RULES**

- Take off must be from one foot. (No diving or forward rolls).
- Knocking the bar off, knocking the uprights over or touching the ground or landing area beyond the plane of the uprights (both between and outside the uprights) without first clearing the bar is a failure. However, if a jumper touches the mat with his foot while jumping and the judge believes no advantage is gained, it is not counted as a failure.
- A jumper is out after three failures. These do not have to be at the same height, so a jumper can miss twice at one height then pass to the next height.
- Jumpers do not have to jump at every height. 2cm is the minimum the bar can be raised each round. However, if there is only one competitor left he or she can nominate the height, including 1cm increases.
- Ties: the jumper with fewest attempts at the tying height is placed higher. If tie still remains the jumper with the lowest number of failures throughout the competition shall be awarded the higher place. If there is still a tie and it involves first place, there should be a jump off with athletes given one attempt at the height they missed at. If all are successful the bar goes up 2cm and jumpers given one more attempt each. If result not determined the bar is lowered 2cm and each has one more attempt. This continues until the winner is found. There cannot be a tie for first place (hence the jump off) but all other places can have a tie.



## LONG JUMP

There are a few generalisations that sum up the most important aspects of the long jump

1. Up to the age of sixteen, the athletes approach should be within two steps of their age, for example a ten year old would take between eight and twelve steps.
2. Speed at the beginning of the approach is useless.
3. Speed at the end of the approach is vital.
4. Good sprinting form is very important.
5. The amount of height an athlete can gain on take-off is key to the distance they will travel.
6. The ability to hold their legs up as they come down for landing will gain many centimetres on their jump.



### **RUN UP**

Speed and consistency are the keys to good long jumping, which means getting the run up right.

1. Run up should not be too long – within 2 steps of age. Help the young athletes find a spot to start from. This can be done by having them run back from the centre of the metre board and mark where they hit the same number of steps as their age. Don't be tempted to let them run further than two steps beyond their age. Once established run up should be measured by tape and distance remembered. Check the run up as wind or surface (e.g. soft grass, all weather surface, hard grass ) can vary the run up length. Adjust check marks as necessary.
2. Ensure jumper always starts with same foot.
3. Accelerate gradually, reaching full speed over the last few strides.
4. Listen to sound of feet – that will tell you more than watching the athlete

### **TAKE OFF.**

1. Drive up with knee of leading leg driven high.



2. Do not reach for the board – this loses forward speed.
3. Look up and forward, not down.
4. Do not slow down on approaching board.
5. Avoid forward or backward lean.

### **FLIGHT**

- Have someone hold the safe end of the rake or something equally long and non-dangerous (maybe a stick with a cloth tied to the end) out over the sand just far enough that the children can leap off the metre board and touch it. Having something to look at and jump towards automatically teaches them to gain height off the board! If done properly the free knee will go up with the opposite arm and that arm will reach to touch the rake handle or cloth. First attempts can be from a two or three step run up then move back to full run up
- Keep lead leg up. Bring trail leg forward to meet it then shoot both legs forward. Many young athletes want to learn the hitch kick, but this is not recommended, as it serves no purpose below a jump of 6 metres or so.

### **LANDING.**

- Still using the jump and reach drill, have the athletes bring both legs together in front of them and hold them there till they hit the sand. The lead knee should already be up as they are reaching for the target and this is a matter of just bringing the back leg up to it.
- Bend knees as heels touch the sand to avoid the bottom hitting the sand behind feet landing point and reducing jump measurement. Have the athlete think of the sand coming to the feet, not the feet going the sand.



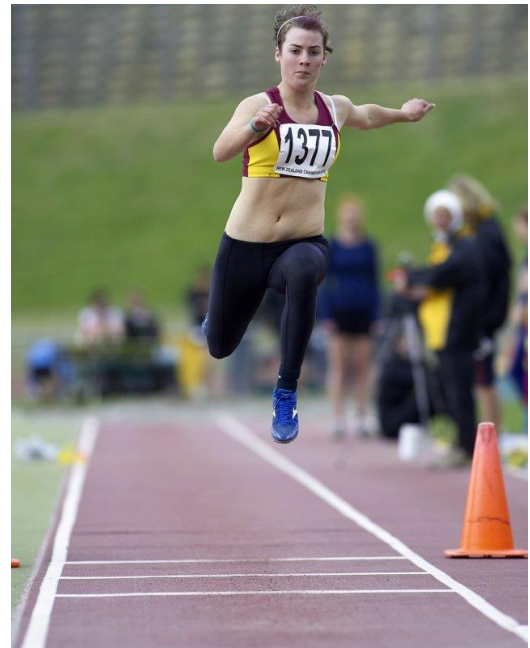
### **BASIC RULES**

- Take off must be from behind the take off board or mark and within the width of the runway.
- Measurement is taken from the nearest break in the sand caused by any part of the body and is taken at a right angle to the take off line. (If landing is outside the width of the board a line is made extending the front of the board to the appropriate side to allow the right angle measurement. Any straight edge including tape or the rake handle can be used).
- Jumpers cannot walk back through the pit.
- Marks cannot be placed on the runway or in the pit but can be placed alongside the runway.



## TRIPLE JUMP

As triple jump is in high school competition (including N.Z. and South Island champs) it can be added to club training for older children – it also helps develop speed, strength and flexibility for sprinting and long jumping. However, triple jump is an event that is hard on the body – it really is a plyometric session, so make sure athletes are strong enough to handle it, i.e. if too young to do plyometrics, too young to try triple jumping.



Triple Jump becomes part of the competition program at age 13, but it's ok to begin teaching it lightly to twelve year olds who are keen to have a go.

### **LEARNING**

All of the previous for long jumping applies to the triple except forward momentum is more important, so take off angle is flatter. Horizontal speed must be maintained. Whereas the long jumper aims for UP and FORWARD the triple jumper emphasises the FORWARD. Action is like a stone skipping across water – low and fast gets it further, but if the stone bounces high it stalls and sinks. Emphasise that the object in the triple jump is to keep your speed so be watchful that the athlete does not produce a high hop, which causes loss of momentum in the landing to the step. The hop should be long and low, the step a bit higher and the jump the highest phase of the three.

Start with standing triple jumps - have the athlete stand on the grass with either their left or right foot forward then take a hop – a step – the a jump landing on two feet. Distance should be minimal – it is the rhythm they are trying to master, not distance. If they start with their right foot forward they will hop back on to the right foot, step on to the left foot and jump onto both feet. Or they may prefer to start with their left foot forward - There are no hard and fast rules about which foot should start the hop. This must be arrived at through experimentation. Athletes will at some point gain a preference as to which foot feels more comfortable. However it makes sense to hop from the strongest foot (LJ take off foot) as 2 of the 3 take offs are from this leg.

For beginners it is important arms are used to stay balanced and are using the arms in coordination with the , so if the right leg is driving forward, the left arm should be forward.

**SUMMARY**

- 1 Start by learning standing hop-step-jump.
- 2 Keep hop and step low and flat
- 3 Keep each phase even as much as possible.
- 4 On hop avoid looking down and forward lean. Free leg does cycle motion
- 5 On step keep leading knee high as long as possible and avoid having lead foot stuck out.
- 6 Everything said about long jump applies to the third action of the triple.



*Note in picture above on and previous page the leading knee held high.*



# SHOT PUT

## **SAFETY**

First consideration must be safety – make sure everyone except the thrower is well behind the circle or throwing area. Athletes throw only after receiving permission from coach or official. Implements must be carried or rolled back, never thrown.

## **HOLDING THE SHOT.**

Shot is held between thumb and fingers and does not touch the palm.

Picking the shot up from the ground then holding directly above the head gives a feel for how it should rest between thumb and fingers.

Shot is lowered to under the chin and the chin pressed down on the shot.

## **FEET.**

Look for a comfortable, balanced stance, with feet around shoulder width and the thrower standing sideways to the direction of throw.

## **THE PUT.**

Back (right leg for right handed athlete) steps back while the trunk is turned to face the rear of the circle. Elbow must be kept up. Then the athlete drives hard with the right leg to face the front and pushes out with the right arm. Have the athlete keep their eyes on the back of the circle and the left arm across the chest for as long as possible, allowing the torso to rotate and provide much of the momentum.

Have the athlete aim high – practise by throwing over a high jump bar set up so that it forces the put to be at a 40 to 45° angle.

## **BEING A SPRING.**

Have athletes imagine they are a jack in a box. By driving with the legs and using the torso to “spring” up and around they will be using their entire body, not just shoulders and arms.





**CLEAN PALM, DIRTY CHIN.**

If athletes have dirt on their palms they are obviously not holding the shot correctly (see above). And if their chins are clean the shot is not in the correct position. Look for clean palms (shows shot is between thumb and fingers) and dirty chin (therefore shot is put, not thrown).

**BASIC RULES**

- Shot must leave from beneath the chin – if it drops away from the chin or is thrown from the shoulder it is a no-throw.
- Thrower must leave the circle from the rear – and must wait until the shot has landed before leaving the circle.
- Touching the top of the stop board or ground outside the circle is not allowed. However, feet touching the inside edge of the circle and/or stop board is permissible.



# DISCUS

Although the event is called the discus throw and athletes usually referred to as throwers, young athletes should grasp the concept of “slinging” rather than throwing. The discus is slung, and if that is understood the idea that speed is more important than strength is more readily accepted.

## **SAFETY.**

Refer to shot put – same applies.

## **HOLDING THE DISCUS**

Ends of the fingers are wrapped over, not around, the rim with the discus resting on the pads of the fingers.

Thumb rests on side and does not hook around the edge. Make sure the athlete does not cup the discus in the wrist.

## **STANCE (STANDING THROW)**

Stand side on to direction of throw, right foot forward, pointing slightly to rear of circle 135° from direction of throw). Ensure feet are comfortably apart to ensure balance (slightly wider than shoulder width).

## **RELEASE**

Discus comes off the index finger. Practise by “bowling” the discus along the ground, having come off the index finger with a clockwise spin on its rim. When the athlete has mastered rolling it, let them throw it forward to land and roll, then have them throw it upwards before it lands and rolls.

## **STANDING THROW**

- Movement is from low to high – legs first then chest then arms.
- Discus is supported with free hand. There is no need and no advantage for the athlete to do a number of warm up arm swings – one swing then throw should be the aim.
- Weight is on front foot – weight transfers to back foot as discus is taken back as far as possible.
- Legs and hips vigorously driven to face the front, pivoting on the balls of the feet. Remember, arms last, so throwing arm is behind chest and hips.
- Arm is kept long (slinging action – longer the sling, faster the movement).



- When torso is facing the front the throwing arm is brought round, discus release – arm follows through.
- Make sure the discus is “slung” and not scooped.
- When athletes confident with standing throw they can do a one step throw – stand with back to direction of throw, take step back with left foot (in direction of throw) keeping weight on flexed right foot. Legs, hips then chest drive around as in standing throw above.

### **BE A SPRING**

As with the shot, have the athletes imagine a spring – first part is coiling the spring, final position is releasing the spring – wind it up, let it go.

### **BASIC RULES**

Discus must land in the sector – the part of the discus touching the line or outside the line on first hitting the ground is a foul.

Any part of the body touching the ground outside the circle means a foul.

Athlete must leave the circle from the rear AFTER the discus has landed.





**NOTES**

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