



## England Athletics movement skills for running, jumping and throwing

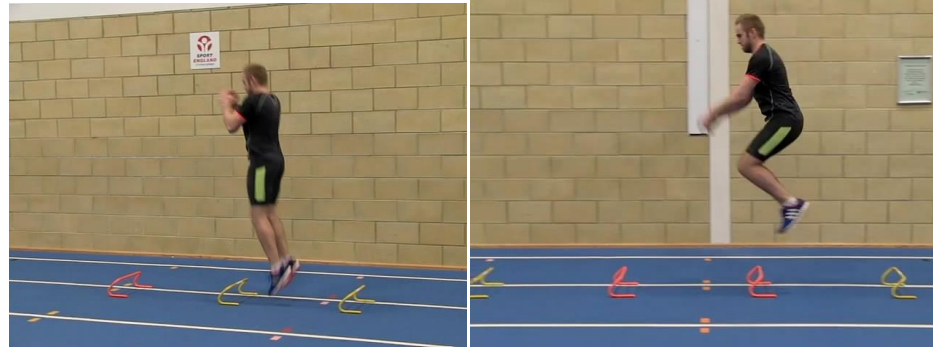
### Day 2 exercise progressions and key coaching points

#### Jumping

<p><b>Jump to box</b></p>	<ul style="list-style-type: none"> <li>○ Squat-like posture and even weight distribution across foot during rapid descent</li> <li>○ Rapid hip flexion to get onto box</li> <li>○ Aim to land downwards onto box on mid-foot with stiff ankle</li> </ul> 
<p><b>Jump to box &amp; vertical jump</b></p>	<ul style="list-style-type: none"> <li>○ Squat-like posture and even weight distribution across foot during rapid descent</li> <li>○ Rapid hip flexion to get onto box</li> <li>○ Aim to land downwards onto box on mid-foot with stiff ankle</li> <li>○ Immediately rapidly extend Hips and jump vertically</li> <li>○ Land in a stable semi squat position</li> </ul> 

**Jump over hurdles (6-12 inch hurdles)**

- Semi-squat stance, weight evenly distributed through feet
- Explosive triple extension in sequence through hips, knees, then ankles
- Short, rapid upward arm swing for explosive triple extension
- 'Cycle' leg to lift over hurdles
- Dorsiflex foot and 'actively reach' for the floor
- Land in semi-squat stance, Mid-foot landing with brief contact



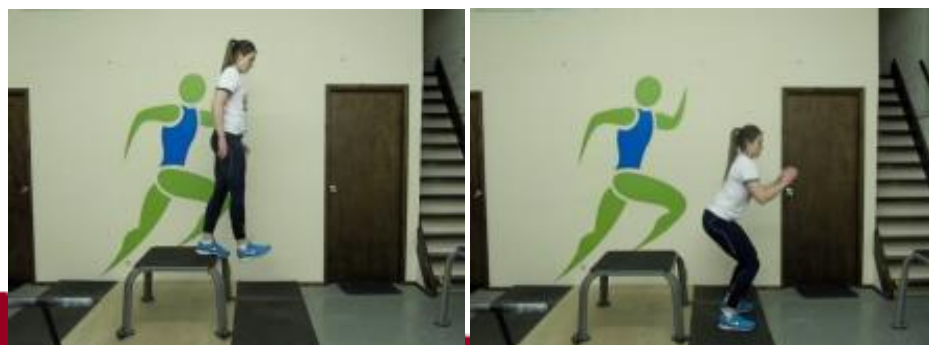
**Single leg vertical jump**

- Hip, knees and ankle in line; no collapse inwards of knee
- Short dip (countermovement) and explosively triple extend
- Keep *whole* foot in contact during initial descent
- Dorsiflexed foot and mid-foot landing
- 'Stick' the landing with no 'bounce'



**Drop & fix/depth jump (without rebound)**

- Step off box or bench, tall posture, prepare for contact
- Land with stiffness, avoiding 'excessive give' in joints
- Land with neutral ankle and flat foot
- Share load across hip, knee, ankle joints in slight triple flexion
- **Note:** This athlete is very advanced and it is recommended that athletes drop off a 25cm box initially.



**Pogo Jumps**

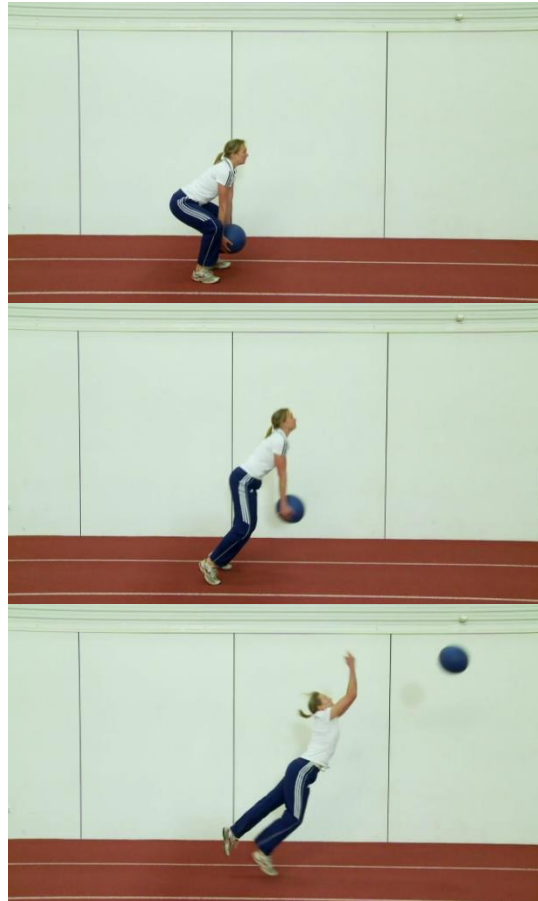
- Bounce rather than jump, keeping foot up
- Contacts brief (listen to how they sound)
- Minimal flexion at hips and knees on landing
- Keep arms flexed and in rhythm with jumping



## Throwing

### **Underarm Forwards throw**

- Flex hips and knees with forwards torso lean – ball between legs
- Explosively extend hip, knee and ankle
- As torso becomes more upright release ball at chest height in underarm action for distance



**Diagonal slam**

- Evenly distribute weight through mid-foot
- Ball off left hip with straight arms
- Take ball in a diagonal path over right shoulder with straight arms and high on toes
- Explosively slam the ball into the ground outside the left foot and brace the trunk
- Perform on the other side



**Neider throw**

- Semi-squat stance, weight evenly distributed through feet
- Ball against chest
- Explosively triple extend followed by elbows to release the ball at 45°
- Trunk stable and braced



**Overhead Backwards Throw**

- Semi-squat stance with weight evenly distributed on feet
- Extend hips, knees then ankles
- Scoop ball upwards and backwards for distance with straight arms
- Hyperextending back on release and finish on toes



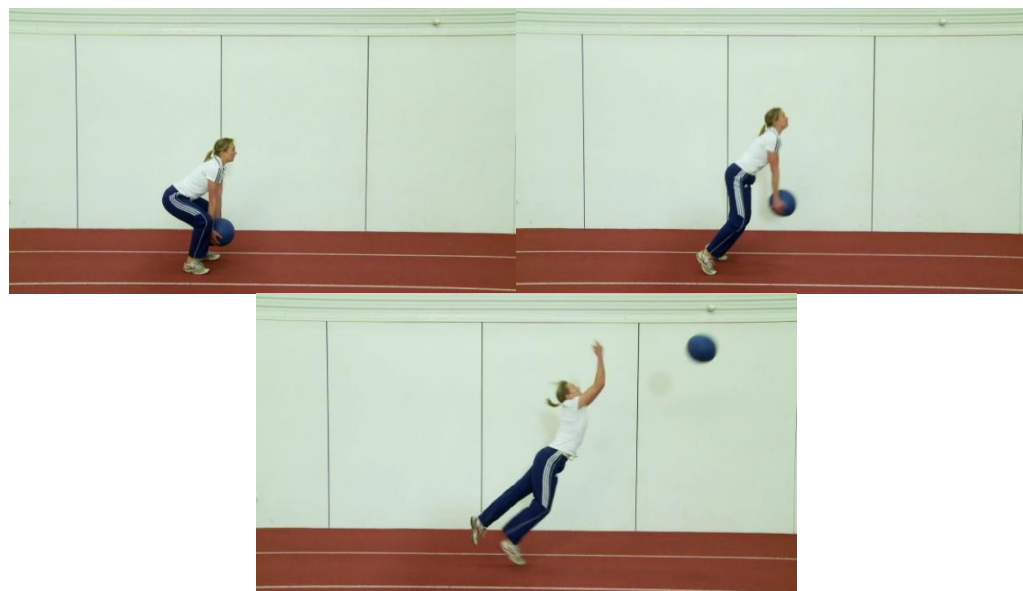
**Split stance side throw**

- Assume a lunge position with back knee approx 20cm from floor
- Stabilise base and cue athlete to stay braced through trunk
- Rotate ball with straight arms away from front knee and maintain knee over toes
- Rapidly rotate across knee uncoiling like a spring and releasing horizontally







**Underarm forwards throw into run**

- Flex hips and knees with forwards torso lean – ball between legs
- Explosively extend hip, knee and ankle
- As torso becomes more upright release ball at chest height in underarm action for distance
- On releasing the ball take a step pushing down and back to accelerate explosively (as in falling starts – see below)
- Perform acceleration over 10m initially



## Running

<p><b>High knees</b></p>	<ul style="list-style-type: none"> <li>○ Have relaxed shoulders</li> <li>○ Keep a Tall upright posture</li> <li>○ Keep the hips high</li> <li>○ Bring the knee up so it is parallel to the ground and toes up so the ankle is a 90°</li> <li>○ Drive the arms backwards and forwards in coordination with the legs</li> <li>○ Be reactive off the ground (vertical force application)</li> </ul> 
<p><b>Straight leg runs (SLR's)</b></p>	<ul style="list-style-type: none"> <li>○ Active on the balls of the feet</li> <li>○ Athlete adopts a relaxed active straight leg skip</li> <li>○ Foot swings down and back into the ground from a position 30cm in front of the athlete</li> <li>○ Foot contacts are under the hip – avoiding contact with the heel</li> <li>○ Arms balance the movement – opposite hand passes the hip on ground contact of the foot.</li> </ul> 

<p><b>Single leg step-over skips (advanced)</b></p>	<ul style="list-style-type: none"> <li>○ Athlete performs straight leg skips</li> <li>○ In sequence the athlete 'cycles' one leg tight under the hip stepping over the opposite knee and back into the floor</li> <li>○ Exercise emphasises the figure four position in top speed mechanics</li> <li>○ The key point is that the recovering knee is in front of the support leg knee at contact</li> </ul> 
<p><b>'B' skips</b></p>	<ul style="list-style-type: none"> <li>○ Adopt a tall upright posture</li> <li>○ Hips high throughout</li> <li>○ Skip with thigh to parallel and then extend lower leg so it is parallel to the ground – laces to shin</li> <li>○ Actively accelerate the leg striking the foot underneath the hip and propelling the whole body forwards</li> <li>○ Avoid heel contact with the ground</li> </ul>
<p><b>Falling starts</b></p>	<ul style="list-style-type: none"> <li>○ Stand upright with feet shoulder width apart</li> <li>○ Lean forwards to start the fall</li> <li>○ Keep body straight</li> <li>○ Athlete pushes down and back when ready – piston like action</li> </ul> 



**Scramble starts**

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- From a variety of positions (face down, on the back, kneeling etc) get up and accelerate into a run
- Push the feet down and back to accelerate explosively – emphasising pushing down and back off both feet with front shin and torso parallel (see picture below)
- Recover the foot quickly to get back on to the ground (think piston action), foot contact should be behind the centre of mass for the first few strides



**3 point starts**

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- Place the opposite hand to front leg placed down on the ground (just over the line) creating a 3 point stance
- Lean forwards into a 3 point stance position maintaining a straight back and distributing the BW over the 3 points of contact
- Push the feet down and back to accelerate explosively – emphasising pushing down and back off both feet
- Front shin and torso parallel



3 point start set-up



1<sup>st</sup> stride



3<sup>rd</sup> stride

**Running over micro-hurdles (6 inch)**

- Place 6-8 micro-hurdles at approximately 5 pigeon steps apart
- Accelerate to the first hurdle over 15m so the athlete is not over-striding between the hurdles
- Step over the knee and maintain high hips
- Present the foot with laces up and contact the ground with heel just off the ground
- Be reactive off the ground
- Use cones instead of hurdles if too advanced