



Performance skills and techniques

Balance- Being able to keep a stable body (without wobbling or falling) over a base of support e.g. hands or feet.

Body Awareness- Understanding how your body is moving in time to the music, without having to look in a mirror.

Canon- This is where a group of performers repeats the same action one after another. A good example of this is the Mexican wave.

Choreography- Being able to create a dance or set of dance moves.

Control- The power to direct your body and body parts to master dance moves.

Co-ordination- Being able to move different body parts at the same time.

Dynamics- Being able to change the way your body moves- fast, slow, jerky, smooth etc.

Expression- Being able to show a story or a feeling through the medium of dance, also, being able to use your face to show the meaning of the dance.

Performance skills and techniques continued.

Rhythm- Being able to listen to the beat of a music and ensure that your moves are in time with this beat.

Space- Using the correct amount of space needed to show the meaning of the dance i.e. not just standing in one position. Also, when in groups using different layouts on the stage.

Timing- You can use the simple 1-8 beat rhythm or you can use half beats in between the beats to gain shorter or faster moves '1 and 2 and 3 and 4 etc...' Also ensuring that if you are in a group you are completing the moves at the same time.

Unison- This technique is where all performers complete the same movement at exactly the same time.

Styles of Dance

Ballet- This dance style is over 500 years old and it is all about telling a story through dance and music. A famous ballet move is going onto pointe toes, this is where the shoes allow dancers to go onto the very tip of their toes which creates a sense of light and airiness.

Street/Hip-hop- This is a very quick style of dance which requires music with a heavy beat,

Keywords

Proxemics
Performance
Audience
Style
Movement

Awareness

Control
Timing
Choreography
Rhythm
Flexibility

Pictures



Extension- To be able to stretch parts of the body to their upper limits, usually your arms, legs and fingers.

Flexibility- The ability of your joints to move through a full range of motion. Having flexibility in your muscles allows for more movement around the joints.

Isolation- Moving one body part on its own whilst the rest of the body is still.

Mirroring- This is where a pair or group of people complete the same movement but the opposite side of the body- as if they were looking in a mirror.

Movement Memory- Being able to replicate certain movements and learning them without having to look in a mirror.

Posture- To be able to distribute weight evenly on the feet, knees bend over toes, back has curves but not forces, shoulders relaxed, this will help to freely move into different dancing positions.

dancers move around quickly creating moves on the floor and tricks such as head spins and flips. This style has derived from a variety of other dance styles yet only became popular in the early 90's.

Modern- This is dance that follows no rules and is focused on expressing inner feelings through music and movement. This style of dance was created in a rebellion against classical ballet due to the limitations. Modern dance became famous in the 1900's. Modern dancers usually dance barefooted and wear weird/revealing costumes which also tell a story

Cultural- Cultural dances are those that originate from a certain country, culture or religion and these are very famous within that culture. For example, Irish dancing originates from Ireland, Bollywood originates from India and Rock n Roll originates from America.

Jazz- This style uses bold and dramatic movements and a lot of facial expression, it is very energetic and is seen as a fun style to dance to. Jazz dancers are encouraged to create their own moves and to interpret every move to suit their own personality and expression.



Ballet



Hip-Hop/Street



Modern



Cultural



Jazz

Table Tennis – Serves

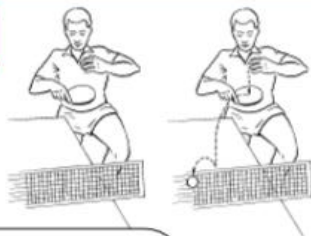
Keywords

Attack	Return
Serve	Push
Rally	Disguise
Forehand	Side Spin
Backhand	Topspin
Coordination	Slice

Can you think of anymore?

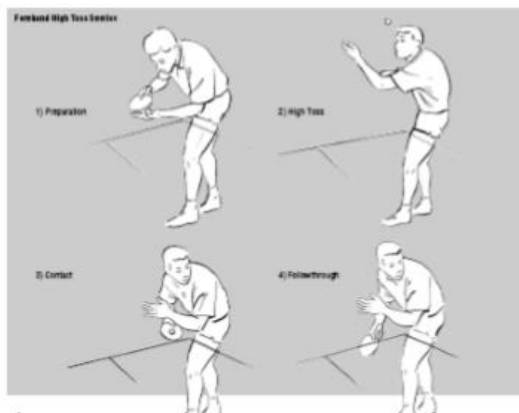
What can you do?

Service Action



Teaching Points

- Serves must be from behind the line and you must 'present' the ball
- Ball toss must travel at least 6 inches into the air
- Serves must land on both sides of the table



Can you experiment with different varieties of serve?

- Can you add topspin, sidespin or slice to your serve?
- How could you disguise your serve without breaking the laws of serve?

Table Tennis – Backhand/Forehand

Keywords

Attack	Return
Serve	Push
Rally	Disguise
Forehand	Side Spin
Backhand	Topspin
Coordination	Slice

Can you think of anymore?

What can you do?

Teaching Points

- Fit paddle firmly in hand with 1 finger across the back of the bat

Shakehands grip



Grip



Teaching Points

- Low stance and light on toes
- Make smooth connection between backswing and forward swing, rotating at the hips
- Start action low and follow through up high

Making and Applying Decisions

- Can you select the correct shot?
- What is effective grip?
- What tactics do you play?
- Can you adapt to each opponent?

Developing physical and mental capacity

- What type of training method?
- How often do you train?
- Overcoming mental barriers
- The will to be successful/achieve

Outwitting Opponents

- What is your opponents weakness?
- Can you feint your shot selection?
- What area of court do you aim at?
- Can you control the rally?

Accurate Replication

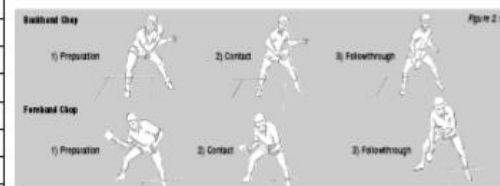
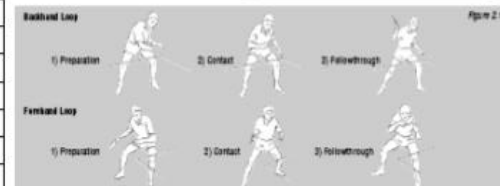
- Can you copy the each shot?
- Which foot do you lead with?
- Can you strike shuttle?
- Do you flick your wrist?

Exercising Safely & Effectively

- Did you warm up effectively?
- How long do you hold a stretch for?
- Why do we need to exercise?
- What happens to your body during exercise?

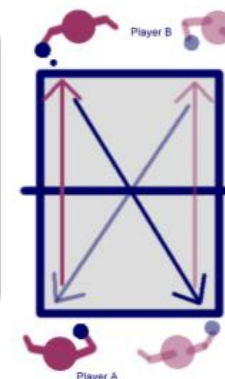
Evaluating and improving

- Able to compare work with others
- Pick out strengths/weaknesses
- To improve your skills and others
- React to the changes in a game



Forehand/Backhand Drill

One player plays shots straight ahead down each side (H's) and the other plays cross court shots into alternate corners (X's).



HANDBALL – Knowledge Organiser

Skills, Techniques and Tactics

Chest pass: This is a short and powerful pass, you have your hands in a W shape and push to extend your arms, you also step forward to give more power.

Shoulder pass: This is a long and powerful shot, you start with the ball in your strong hand next to your shoulder, you extend your arm and follow through with your body.

Bounce pass: This is a pass which is low to the ground, you use the same position as a chest pass but aim in $\frac{1}{4}$ of the way between you and the person you are bouncing to.

Overhead pass: This is a double handed throw, similar to a football throw in. This is for long distances and to get the ball over someone if they are trying to block.

Dribbling: Players may dribble the ball as in basketball but are allowed three steps before and after the dribble. You need to keep the ball close to your body to help

Shooting



Jump shot



Blocking

Handball Rules

- 7 players per team with 1 nominated goalkeeper
- Substitutes may enter the game at any time through own substitution area as long as the player they are replacing has left the court.
- It is illegal to keep the ball in a team's possession without making a recognisable attempt to attack and to try to score. In other words, a team cannot slow down (free-throw awarded to the other team).
- No player except the GK is allowed in the goal area (unless both feet are off the floor)

A player is allowed

- To run 3 steps with the ball
- To hold the ball for 3 seconds
- Perform unlimited dribble with 3 steps before and after dribbling (NO DOUBLE DRIBBLE)

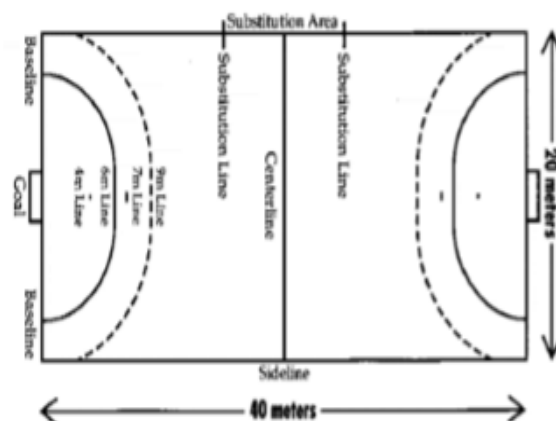
A player is not allowed:

- ✓ To endanger an opponent with the ball.
- ✓ To pull, hit or punch the ball out of the hands of an opponent.
- ✓ To go inside the goal area – penalty throw awarded
- ✓ To dive on the floor for a rolling or stationary ball.



Keywords

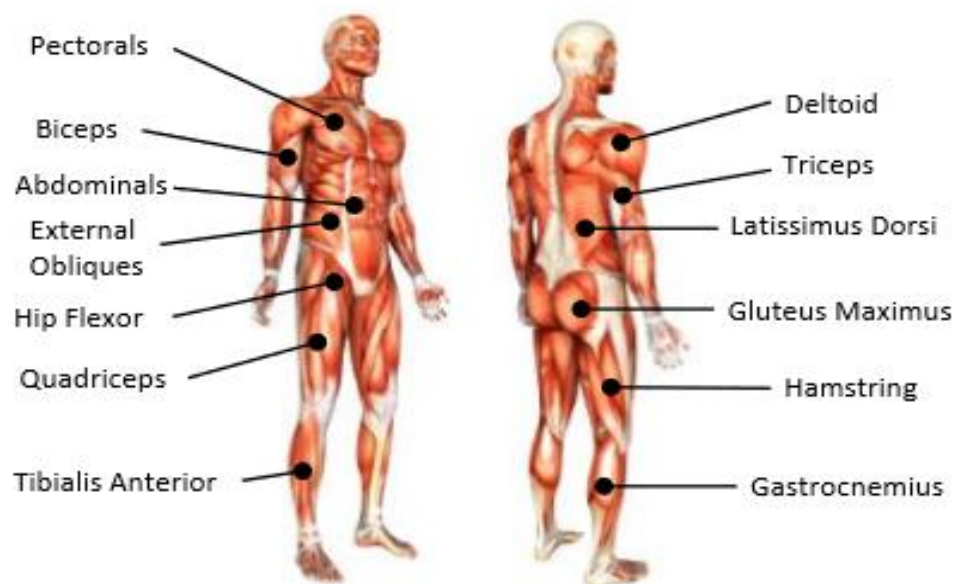
- | | |
|---|--|
| <ul style="list-style-type: none"> • Dribble • Shoulder pass • Chest pass • Bounce Pass • Jump shot • Defence • Attack | <ul style="list-style-type: none"> • Penalty throw • Team work • Communication • Coordination • Speed • Agility • Power |
|---|--|



TEAM HANDBALL SKILLS

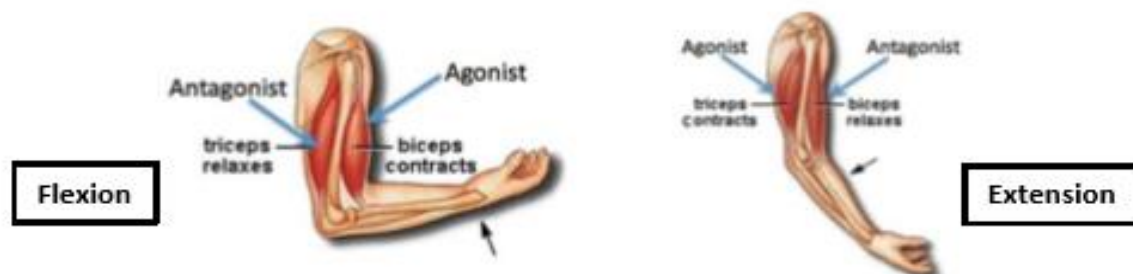


Structure of the muscular system



Antagonistic pairs - Muscles are arranged in antagonistic pairs.

As one muscle contracts (shortens) its partner relaxes (lengthens) *i.e. Biceps and Triceps.*



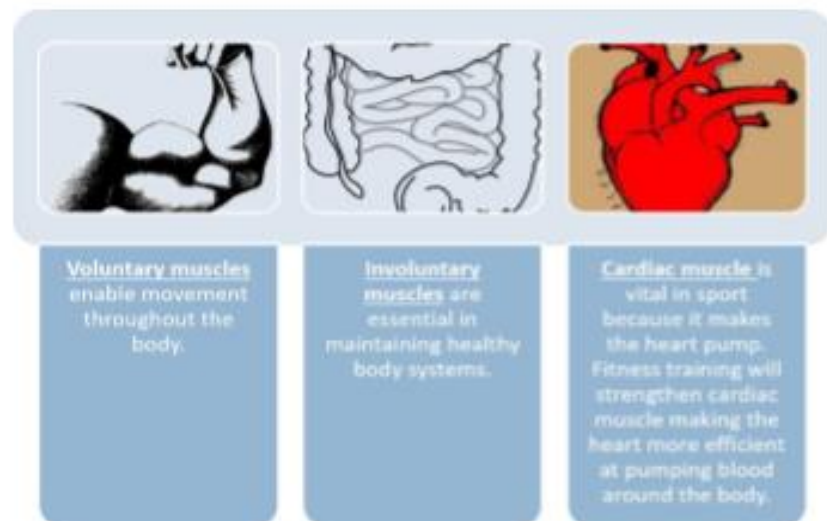
Agonist = the muscle that contracts to produce movement.

Antagonist = the muscle that relaxes to allow the movement to occur.

Examples in the body:

- Biceps & Triceps
- Quadriceps & Hamstring
- Hip Flexor & Gluteus Maximus
- Tibialis Anterior & Gastrocnemius

Types of muscle

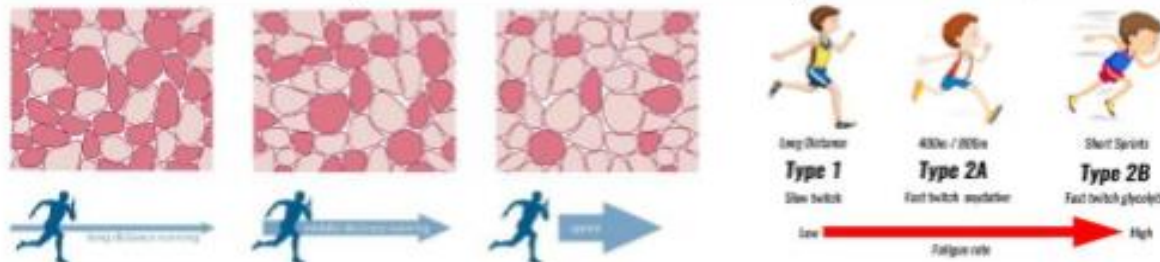


The **short term effects** of exercise on the muscles:

1. Working muscles produce heat
2. Increased muscle fatigue due to lactate accumulation
3. Blood is re-distributed to working muscles (Shunting)

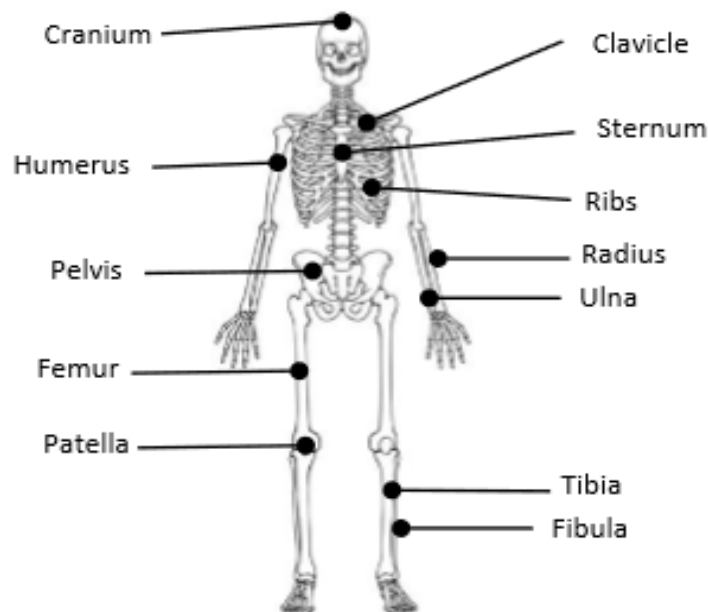
Muscle fibre types

Slow twitch muscle fibres (Type I)	Fast twitch muscle fibres (Type IIa)	Fast twitch muscle fibres (Type IIx/b)
<ol style="list-style-type: none"> 1. Smaller in size. 2. Work aerobically with high fatigue resistance. 3. Have a good oxygen supply = deep red in colour. 4. They contract slowly, but can work for long periods. 	<ol style="list-style-type: none"> 1. Larger in size 2. Work anaerobically & linked to high intensity activities. 3. Are paler in colour and have limited oxygen supply. 4. They contract quickly and powerfully, but tire easily. 	<ol style="list-style-type: none"> 1. Large in size 2. Work anaerobically & linked to extreme high intensity activities. 3. Very high speed of contraction but low fatigue resistance.
Marathon runner	400/800m runner	100m Sprinter

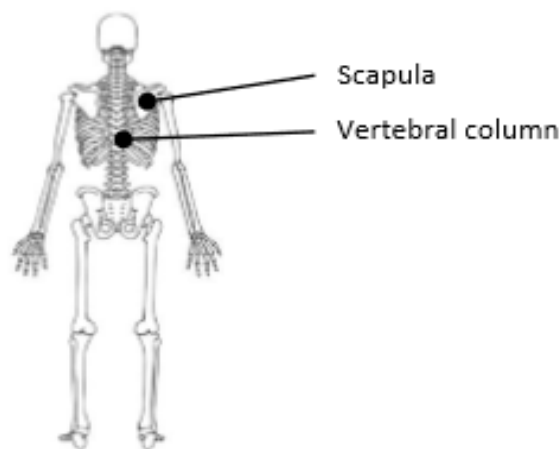


Link of the muscular and skeletal system – both systems work together to produce movement. *i.e. a contracting muscle pulls on a bone which changes the angle at a joint.*

Structure of the skeletal system



Structure of the skeletal system



Vertebral Column

The vertebral column is divided into 5 sections. It is made up of irregularly shaped bones called vertebrae.

Each vertebra is protected with cartilage to prevent friction.

The vertebrae protects the spinal cord.



Function of the skeleton

- Protection of vital organs
- Muscle attachment
- Joints for movement
- Blood cell production (platelets, red and white)
- Storage of calcium and phosphorus

Classification of joint

- Pivot (neck – atlas and axis)
- Hinge (elbow and knee)
- Ball and socket (hip and shoulder)
- Condyloid (wrist)



Connective tissue

Ligaments – attaches bone to bone to add joint stability.

Tendons – attaches muscles to bone and contributes to joint movement as a result of muscle contraction.

Classification of bones

Long (leverage)	Short (weight bearing)	Flat (protection + muscle attachment)	Irregular (protection and muscle attachment)
Clear shaft region to the bone. <i>i.e. femur, humerus & phalanges</i>	Light, small and very strong. <i>i.e. carpals, tarsals</i>	Broad surface area for muscle attachment. <i>i.e. cranium</i>	Assist the functioning of certain joints. <i>i.e. Patella/vertebrae</i>

Joint movements

Flexion	Adduction	Rotation	Dorsi-Flexion (ankle joint)
Decreasing the angle at a joint (bending)	Limbs moving towards the midline of the body.	A twisting/turning action around a joint.	When the toes are turned up to the body.
Extension	Abduction	Circumduction	Planter-Flexion (ankle joint)
Increasing the angle at a joint (straightening)	Limbs moving away from the midline of the body.	A combination of flexion, extension, adduction & abduction.	When the toes are pointed away from the body.

Physical-Related Fitness Components

Aerobic Endurance: The ability of the heart and lungs, to work for a long period of time. Sports: Long distance running, Football, Road Cycling.

Muscular Endurance: the ability of a muscle, to work continuously without tiring. Sports: Hockey, Rugby, Endurance Sports

Flexibility: The range of movement at a joint. Sports: Gymnastics, Dance, Diving.

Muscular Strength: The maximum amount of force a muscle can produce in a short period of time. Sports: Rugby, Powerlifting, Boxing.

Speed: The ability to cover distances quickly. 3 types of speed; Accelerative Speed, Pure Speed & Speed Endurance. Sports; Athletics, Football, Rugby.

Body Composition: The ratio of Fat to fat-free mass In the body. Different sports will need a different body fat percentage



Skill Related Fitness Components

Agility: Ability to change direction quickly and efficiently. Sports: Tennis, Rugby.

Balance: Ability to maintain centre of mass over a base of support. Two types; Static and Dynamic Balance. Sports; Gymnastics, games sports.

Co-Ordination: Smooth flow of movement to be able to perform a motor skill fluently. Sports; Tennis, Rugby, Gymnastics.

Power: Combination of Speed and Strength. Sports; Long Jump, Rugby, American Football.

Reaction Time: The ability to react quickly to a stimulus. Sports; Sprinting, Tennis, Table tennis.



Principles of Training

For any training to be successful, it must stick to the following principles;

Specificity: Tailoring training to your goals and sport.

Progressive Overload: Gradually increasing exercise intensity to cause adaptation.

Variation: Changing the type of training, to increase motivation.

Adaptation: Changes in the body caused by exercising at a high intensity.

Reversibility: When you stop training, you lose any fitness adaptations you will have gained.

Rest & Recovery: The time required to allow your body to repair any damage sustained during training/competition. The body will repair itself and become stronger than before.

Frequency: How often you train

Intensity: How hard you train

Time: How long you train for

Type: what type of training do you do



Exercise Intensity

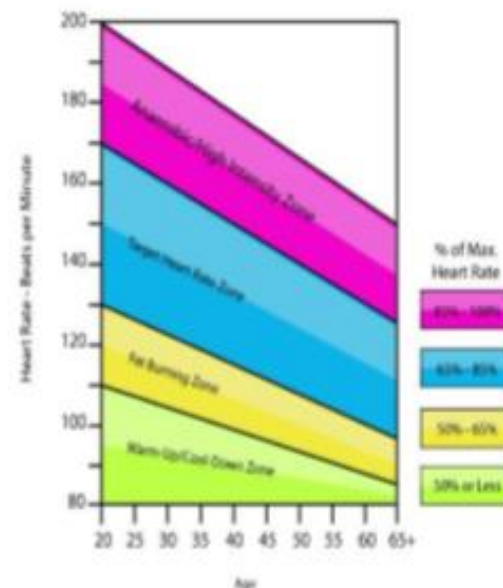
Measure how hard you are training by using your heart rate (BPM).

Maximum heart rate = 220 – age
Target heart rate zone for Aerobic training 60-85% of your maximum heart rate.

Therefore, you should be training hard enough, that your heart rate is between 60-85% of your maximum heart rate. This will cause your body to adapt.

Borg's RPE scale can also predict intensity and heart rate.

RPE X 10 = HR



Muscular Strength

Test: Hand Grip Dynamometer Test

Protocol: Grip the dynamometer in one hand. Start with your hand up and bring down to side while pulling in handle. No swinging your hand.



Advantages	Disadvantages
<ul style="list-style-type: none">• Simple and easy to complete	<ul style="list-style-type: none">• Only one size of dynamometer which may affect reading.• Focuses solely on forearm strength.

Muscular Endurance

Test: 1 minute sit up test



Test: 1 minute press up test



Protocol: Complete as many full sit ups/press ups as possible in 1 minute.

Advantages	Disadvantages
<ul style="list-style-type: none">• Simple test to complete• Minimal equipment needed.	<ul style="list-style-type: none">• Difficult to assess whether each repetition is performed correctly. Difficult to accurately measure large groups.

Flexibility

Test: Sit and Reach Test

Protocol: Sit with legs straight out in front and soles of feet against box/table. Reach forward without bending knees. No jerking movements.



Advantages	Disadvantages
<ul style="list-style-type: none">• Quick and easy to perform.• Data table readily available for comparison	<ul style="list-style-type: none">• Can cause injury if not fully warmed up appropriately.• Only measures flexibility of lower back and hamstrings.

Cardiovascular Fitness (Aerobic Endurance)

Test: 12 min Cooper Run

Protocol: Continuously run/swim for 12 minutes. Distance recorded.



Advantages	Disadvantages
<ul style="list-style-type: none">• Minimal equipment needed• Test can be self administered.	<ul style="list-style-type: none">• Inaccuracy of heart rate measurements• Motivation dependant

Test: Harvard Step Test

Protocol: Step continuously for 5 minutes. Measure heart rate at 1, 2 and 3 minutes after exercise.

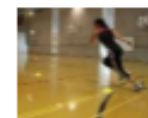


Advantages	Disadvantages
<ul style="list-style-type: none">• Simple test to complete	<ul style="list-style-type: none">• Motivation dependant

Agility

Test: Illinois Agility Test

Protocol: Start lying down at the start line. Complete course as quick as possible (10m x 5m – 4 central cones)



Advantages	Disadvantages
<ul style="list-style-type: none">• Simple and easy to complete	<ul style="list-style-type: none">• Motivation dependant / Timing errors.

Speed

Test: 30m Sprint Test

Protocol: Start from stationery position. Complete distance in the quickest possible time. Time is stopped when chest crosses the line.



Advantages	Disadvantages
<ul style="list-style-type: none">• Quick test to complete.• Minimal equipment needed and can be performed anywhere with a flat 50m run.	<ul style="list-style-type: none">• Running surfaces/weather conditions can affect the results.• Inaccuracies with stopwatch usage.

Power

Test: Vertical jump Test

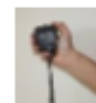
Protocol: Stand next to wall and mark an initial reach while feet are flat on the ground. Standing jump to reach as high as possible. Measure distance from first mark to second.



Advantages	Disadvantages
<ul style="list-style-type: none">• Quick and easy to perform.• Easy to complete with large groups.	<ul style="list-style-type: none">• Technique plays a large role in successful completion.

Reliability /Validity

Validity relates to whether the test actually measures what it sets out to measure.



Reliability is a question of whether the test is accurate. It is important to ensure that the procedure is correctly maintained for ALL individuals.

Results can be improved:

- By using experienced testers & calibrating equipment
- Ensuring performers have the same level of motivation to complete each test
- Repeatedly test to avoid human error (x3)