Basketball - Dribbling

Keywords

Attack	Accuracy
Balance	Movement
Possession	Receive
Control	Two Steps
Speed	Shoot
Double Dribble	Travelling

Can you think of anymore?

Teaching Points:

1. Keep your head up - don't look at the ball.
2. Keep the ball at waist height.
3. Keep your dribbling hand on top of the ball - don't "carry".

What can you do?

Making and Applying Decisions	Can you select the correct shot?
	Can you dribble with both hands?
	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	How can you get past opponent?
	Can get away from marker?
	Can you cross over dribble?
	Can you control the game?
Accurate Replication	Can you copy the set shot?
	Can you perform the layup?
	Can you dribble with control?
	Can you keep your body between ball and marker?
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

Handy Hints

1. Don't over use the dribble - a quick pass is always a better option if you have an open team-mate further up the court.
2. Keep your head up - don't look at the ball. If your looking at the ball you can't see where your going, or where the defenders are. You must be able to see the court.
3. A "good" basketball player can dribble well with both hands. Practice with your weak

Dribbling Rules:

What is...(a) Double Dribble?

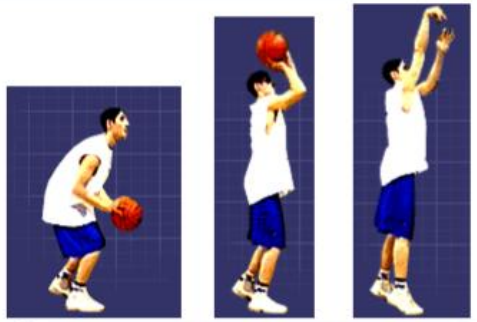
(b) Travelling?

Basketball – Shooting

Keywords

Attack	Accuracy
Balance	Movement
Possession	Receive
Control	Release Point
Speed	Free Throw
Follow Through	Set Shot

Can you think of anymore?



What can you do?

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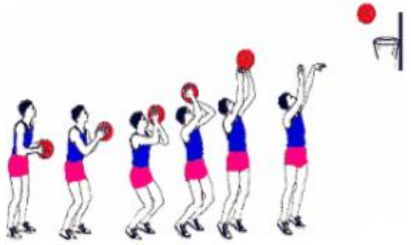
Coaching Points

- Square up, bend knees and elbows, bend wrist.
- Release and wave "good-bye" to the ball (have the shooting hand follow through).
- Extend the shooting arm up and out toward the basket.



Holding the Ball

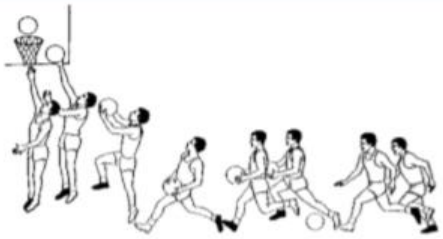
1. Holding the ball correctly you should see a "Y" being formed by your thumb, fingers and forearm of your shooting arm.
2. Hold ball with the pads of the fingers and thumbs. There should be a gap between the palm of the hand and the ball.
3. The other hand only acts as a guide and is removed from the ball before the shot is released.

Basketball – Lay-Up

Keywords

Attack	Accuracy
Balance	Movement
Possession	Receive
Control	Two Steps
Speed	Shoot
Backboard	Triple Threat

Can you think of anymore?



1. You are allowed to take two steps. Jump up, not forward.
2. As you take your steps and jump, bring the ball up with two hands to the shooting position.
3. Shoot with the outside hand, using the inside arm to protect the shot.
4. At the height of the jump, shoot the ball softly off the backboard.

What can you do?

Making and Applying Decisions	Can you select the correct shot?
	Can you dribble with both hands?
	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?
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	Can you cross over dribble?
	Can you control the game?
Accurate Replication	Can you copy the set shot?
	Can you perform the layup?
	Can you dribble with control?
	Can you keep your body between ball and marker?
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
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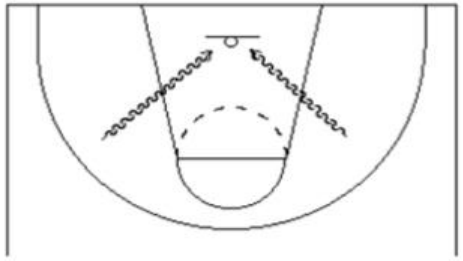
The Lay-Up is one flowing movement, not 'Stop & shoot'



Ideally, approach the basket at an angle of 45 degrees

Basketball – Passing

Keywords

Attack	Accuracy
Balance	Movement
Possession	Receive
Control	Rhythm
Speed	Overhead Pass
Chest Pass	Bounce Pass

Can you think of anymore?

What can you do?

Making and Applying Decisions	Can you select the correct shot?
	Can you dribble with both hands?
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The Chest Pass

1. The ball is held close to the chest; keep your elbows close to your body - no "chicken wings".

2. The ball is held in both hands. Hands either side of the ball, fingers spread, thumbs behind the ball. Use the fingers and thumbs to hold the

The Bounce Pass

1. Execution is the same as a chest pass except the arms are thrust out and down, so that the ball hits the floor about two-thirds of the distance to the receiver.

2. The ball should come up to waist level for the receiver.

The Overhead Pass

1. Hold the ball with both hands, using the finger pads and thumb on the outside of the ball.

2. Hold the ball above your forehead, not behind your head where it is easily stolen.

Netball – Catching & Landing

Keywords

Attack	Pivot
Balance	Obstruction
Control	Balance
Speed	Dodge
Defence	Shoot
Coordination	Footwork

Can you think of anymore?

- Monitor the flight of the ball
- Judge the speed and direction of the ball
- Reach for the ball with full arm extension
- Receive the ball with fingers spread wide and curved
- Bring your arms back into your body so you take the force out of the pass

What can you do?

Making and Applying Decisions	Can you select the correct shot?
	Can you use the correct footwork?
	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	How can you get past opponent?
	Can get away from marker?
	Can you make space in attack?
	Can you control the game?
Accurate Replication	Can you catch with both hands?
	Can you shoot at ring?
	Can you land with control?
	Can you keep your body between ball and marker?
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

- You can improve your play by turning in the air before you land
- To regain your balance you have to absorb the energy from your jump
- Bend your knees and flex your ankles as both feet hit the floor
- Try to land on the balls of your feet, not your heels

- The benefit of a two-footed landing is that you can decide which foot is your landing foot
- But once you lift one foot then you have made your decision
- You must then pivot, jump or simply step and make your pass

Netball – Passing

Keywords

Attack	Pivot
Balance	Obstruction
Control	Balance
Speed	Dodge
Defence	Shoot
Coordination	Footwork

Can you think of anymore?

What can you do?

Making and Applying Decisions	Can you select the correct shot?
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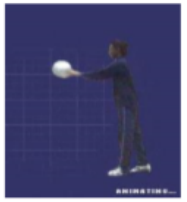
CHEST PASS



- The ball is held in two hands, fingers and thumbs spread
- The ball is brought in close to chest
- The wrists rotate so that the thumbs point downwards
- The player steps forward onto her left foot in the direction of the throw.
- The elbows & wrists extend strongly
- Step into the pass

OVERHEAD

- Bend your arms and keep your elbows close to your body
- . Lift the ball over your head and allow it to drop back a little
- Put one foot forward for you to step into the pass
- Aim between their head and chest for easier receiving
- The flight of the ball should be high

BOUNCE PASS

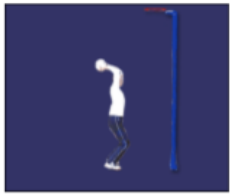
- The ball is brought in close to chest
- It should be held so that fingers are pointing towards the floor
- Release the ball from waist height
- Aim the ball 2/3rds the distance between you
- The ball should bounce into her hands at waist level

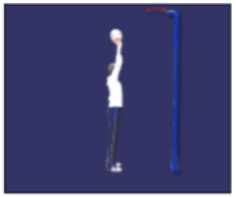
Netball – Shooting

Keywords

Attack	Pivot
Balance	Obstruction
Control	Balance
Speed	Flight
Defence	Shoot
Coordination	Footwork

Can you think of anymore?





Coaching Points

- Feet shoulder-width apart facing post
- Ball held high directly ABOVE your head
- Knees and elbows are slightly bent to push off
- Eyes looking at a point above the ring
- Flick the ball upwards using wrist and index finger

Making and Applying Decisions	Can you select the correct shot?
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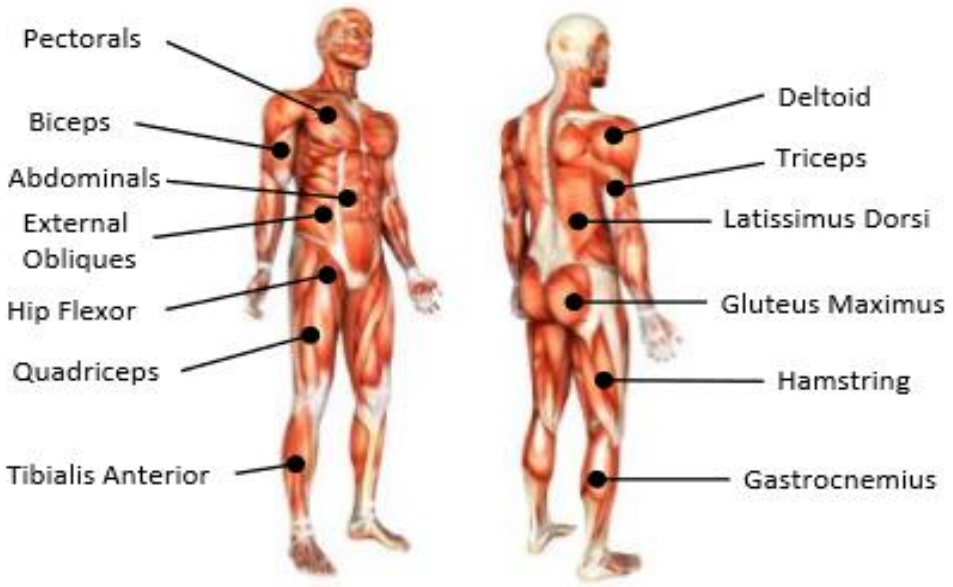
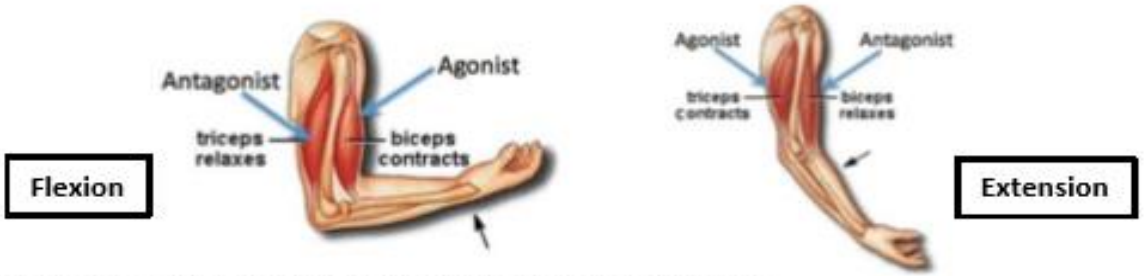
Holding the Ball

- The ball rests on the fingertips of your stronger hand
- Hand is directly below the ball
- Index (pointing) finger is in line with the post
- Other hand supporting – held to the side of the ball

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

Voluntary muscles enable movement throughout the body.

Involuntary muscles are essential in maintaining healthy body systems.

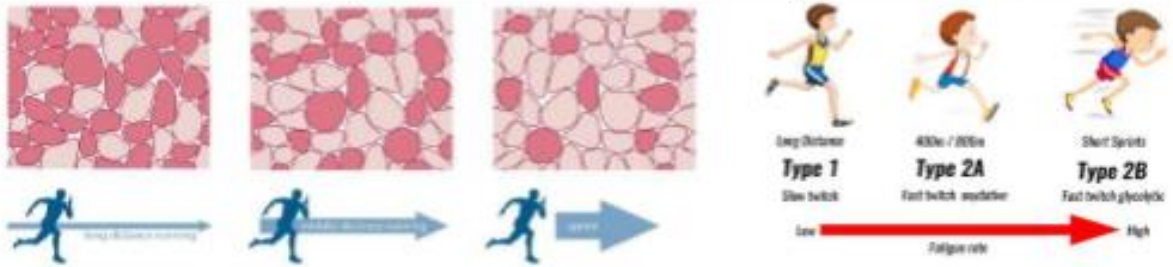
Cardiac muscle is vital in sport because it makes the heart pump. Fitness training will strengthen cardiac muscle making the heart more efficient at pumping blood around the body.

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)

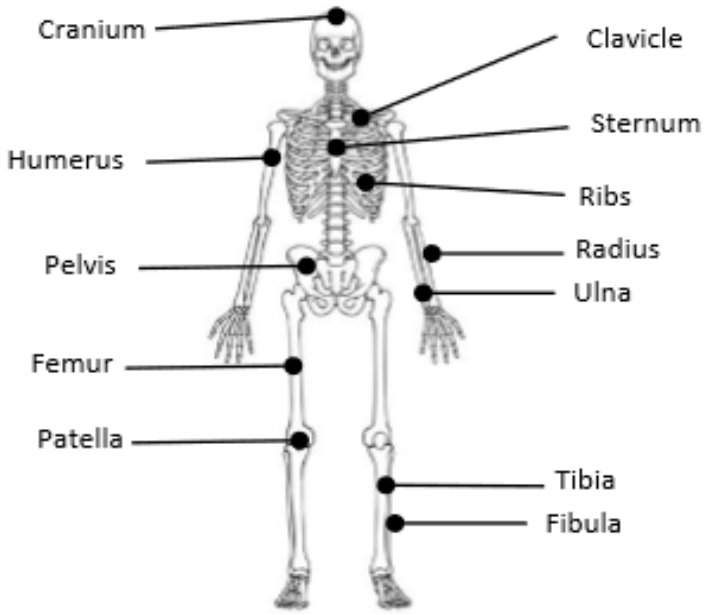
Muscle fibre types

Slow twitch muscle fibres (Type I)	Fast twitch muscle fibres (Type IIa)	Fast twitch muscle fibres (Type IIx/b)
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. **Marathon runner**	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. **400/800m runner**	1. Large in size 2. Work anaerobically & linked to extreme high intensity activities. 3. Very high speed of contraction but low fatigue resistance. **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



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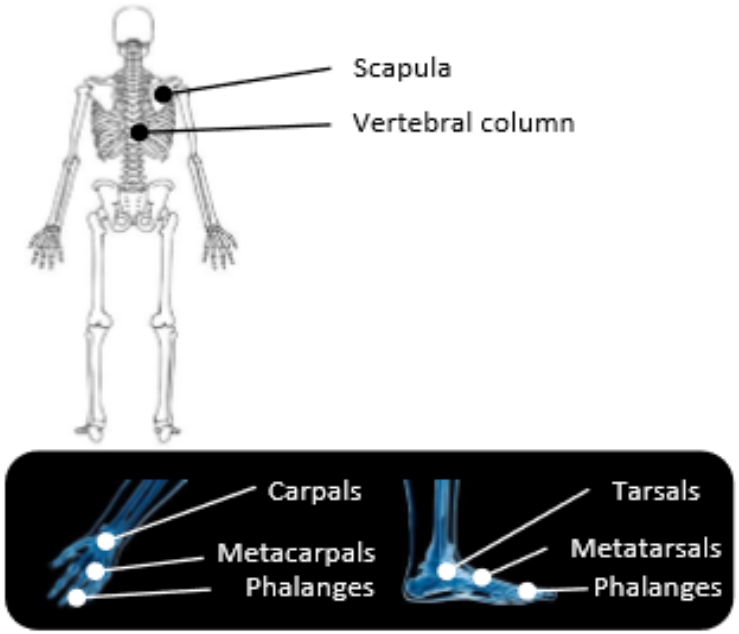


Vertebral Column

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

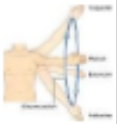
Ligaments – attaches bone to bone to add joint stability.

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.e. femur, humerus & phalanges*	Light, small and very strong. *i.e. carpals tarsals* 	Broad surface area for muscle attachment. *i.e. cranium* 	Assist the functioning of certain joints. *i.e. Patella/vertebrae* 

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. 

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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.

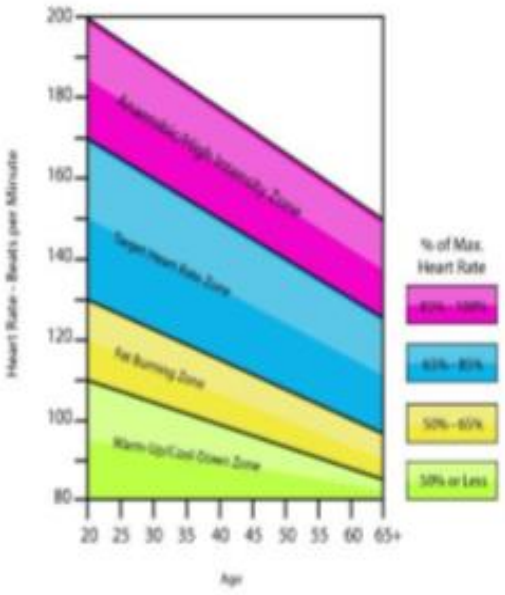
Rest & Recovery: The time required to allow your body to repair any damage sustained during training/competition. The body will repair itself and become stronger than before.

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 had 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
• Simple and easy to complete	• 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
• Simple test to complete • Minimal equipment needed.	• 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
• Quick and easy to perform. • Data table readily available for comparison	• 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
• Minimal equipment needed • Test can be self administered.	• 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
• Simple test to complete	• 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
• Simple and easy to complete	• 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
• Quick test to complete. • Minimal equipment needed and can be performed anywhere with a flat 50m run.	• 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
• Quick and easy to perform. • Easy to complete with large groups.	• Technique plays are 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.

<u>Results can be improved:</u>
- 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)