

GCSE Physical Education – Fitness Testing

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.

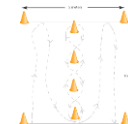


Advantages	Disadvantages
<ul style="list-style-type: none"> Simple test to complete 	<ul style="list-style-type: none"> Motivation dependant

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 stationary 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)

