Unit 1 – Fitness for Sport and Exercise

Learning Aim C – Knowledge Organiser

Fitness Tests for Components of Fitness

Flexibility	• Sit and reach test (usually measured in cm or inches).
Strength	• Grip dynamometer (usually measured in KgW).
Aerobic Endurance	• Multi-stage fitness test, known as the bleep test (usually predicted in ml/kg/min). • Forestry step test (usually predicted in ml/kg/min).
Speed	• 35m sprint (usually measured in s).
Speed and Agility	• Illinois agility run test (usually measured in s).
Anaerobic Power	• Vertical jump test (usually measured in kgm/s).
Muscular Endurance	• One-minute press-up, one-minute sit-up (usually measured in number of reps per minute).
Body Composition	• Body Mass Index (BMI) (usually measured in kg/m²) • Bioelectrical Impedance Analysis (BIA), used for prediction of percentage body fat. • Skinfold testing via the Jackson-Pollock nomogram method for prediction of percent body fat (sites for males: chest, abdominal and thigh; sites for females: triceps, suprailiac and thigh).

Importance of Fitness Testing to Sports Performers and Coaches

Baseline Data	• Provides baseline data for monitoring/improving performance.
Training Programme Design	• Can design training programmes based on test results and determine if training programmes are working.
Goal Setting	• Results can give a performer something to aim for.

Requirements for Administration of Each Fitness Test

What to do before/during carrying out a fitness test…

- Consider the standard pre-test procedures (e.g. informed consent, calibration of equipment etc.).
- Ensure sound knowledge of the standard test methods and equipment/resources required for the test.
- Consider the purpose of each fitness test.
- Ensure accurate measurement and recording of test results.
- Ensure basic processing of test results for interpretation post-test (e.g. using published data tables and appropriate units for comparison purposes).
- Safely select appropriate test(s) for a given sport/individual needs.
- Consider the possible 'reliability', 'validity' and 'practicality' of each fitness test.
- Consider the 'advantages' and 'disadvantages' of fitness test methods.

Interpretation of Fitness Test Results

What to do with the test results once you've carried out a fitness test…

- Compare fitness test results to normative published data.
- Compare fitness test results to those of peers.
- Be able to analyse and evaluate test results.
- Be able to suggest and justify appropriate recommendations for improvements to fitness for a given sport/individual needs.
- Be able to suggest and justify appropriate fitness training methods that could be used for a given sport/individual needs.