Skill related fitness

Agility:
-Illinois agility run test
-T Test.

Balance:
-Stork stand test
-Y balance test.

Coordination:
-Alternate-Hand Wall-Toss test
-Stick flip coordination test.

Power:
-Vertical jump test
-Standing long/broad jump
-Margaria-Kalamen power test.

Reaction time:
-Ruler drop test
-Online reaction time test (reaction test timer)

Physical related fitness

Aerobic endurance:
-Multi-stage fitness test (Bleep test 20 metre distance)
-Yo-Yo test
-Harvard step test
-12-minute Cooper run or swim.

Muscular endurance:
-One-minute press-up
-One-minute sit-up
-Timed plank test.

Flexibility:
-Sit and reach test
-Calf muscle flexibility test
-Shoulder flexibility test.

Speed:
-30 metre sprint test
-30 metre flying sprint.

Muscular strength:
-Grip dynamometer
-1 Rep Max.

Fitness testing considerations

Reliability:
-Whether the results can be replicated/ trusted

Validity:
-Whether the test measures the correct component of fitness.

Factors affecting reliability:
-Calibration of equipment
–Motivation of the participant
–Conditions of the testing environment
–Experience of the person administering the test
–Compliance with standardised test procedure.

Practicality:
-cost
-Time taken to perform &set up the test
-Time taken to analyse data
-Number of participants that can take part in the test at any time.

Methods of training - Physical related fitness

Aerobic endurance:
-Continuous training
-Fartlek training
-Interval training
- Circuit training

Flexibility:
-Static active
-Static passive
-Proprioceptive Neuromuscular Facilitation (PNF) technique

Muscular Strength:
-Fee weights
-Fixed resistance machines

Speed:
-Acceleration sprints
-Interval training
-Resistance drills

Muscular Endurance:
-Fee weights resistance machines
- Circuit training

The effects of long-term fitness training on the body systems

Aerobic endurance training:
-Adaptations to the cardiovascular and respiratory systems
-Cardiac hypertrophy
Decreased resting heart rate
-Increased strength of respiratory muscles
-Capillarisation around alveoli.

Flexibility training:
-Adaptations to the muscular and skeletal systems
-Increased range of movement permitted at a joint
-Increased flexibility of ligament and tendons
-Increased muscle length.

Muscular endurance training:
-Adaptations to the muscular system
-Capillarisation around muscle tissues
-Increased muscle tone

The effects of long-term fitness training on the body systems

Muscular strength and power training:
-Adaptations to the muscular and skeletal systems
-Muscle hypertrophy
-increased tendon and ligament strength
-Increased bone density.

Speed training:
-Adaptations to the muscular system
-Increased tolerance to lactic acid.

Training intensity

-Maximum heart rate 220 -Age
-Aerobic training zone 60-85% MHR
-Anaerobic training zone 85%-MHR

Rate of perceived exertion
RPE to HR = x10
HR to RPE = Divide by 10

Methods of training - Skill related fitness

Agility:
-Speed Agility and Quickness training (SAQ) – drills

Power:
-Plyometrics (lunging, bounding),

Balance:
-Use of specific training exercises that require balancing on a reduced size base of support.

Coordination:
-Use of specific training exercises using two or more body parts together.

Reaction time:
-Use of specific training

Principles of training (In SPOR VARR)

Additional principles of training
-Individual needs
-Specificity
-Progressive Overload
-Reversibility

-Variation
-Adaptation
-Rest & Recovery

Basic principles of training
-Frequency
-Intensity
-Time
-Type