**Unit 4 Revision Session**



**KK 1 : fitness components: definitions and factors affecting the health-related fitness components, including aerobic capacity, anaerobic capacity, muscular strength and endurance, flexibility, body composition, and the skill-related components, including muscular power, speed, agility, coordination, balance and reaction time.**

For each of the fitness components you need to be able to

* Define them
* Health or skill related
* Know factors affecting them
* Energy system and fibre type
* Tests
* Training methods
* Sporting examples

|  |  |
| --- | --- |
| **Fitness component** | Aerobic Capacity |
| **Health or skill related** | Health |
| **Definition** |  |
| **Factors** |  |
| **Energy system and fibre type** |  |
| **Fitness tests** |  |
| **Sporting examples** |  |

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| **Fitness component** | Anaerobic capacity |
| **Health or skill related** |  |
| **Definition** |  |
| **Factors** |  |
| **Energy system and fibre type** |  |
| **Fitness tests** |  |
| **Sporting examples** |  |

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| **Fitness component** |  |
| **Health or skill related** |  |
| **Definition** |  |
| **Factors** |  |
| **Energy system and fibre type** |  |
| **Fitness tests** |  |
| **Sporting examples** |  |

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**KK 2 : Data collection activity analysis, including skill analysis, movement patterns and work to rest ratios.**

**DATA COLLECTION**:

The following tables are only guides and may need to be adjusted to suit your requirements.

## Table 1. LOCOMOTOR/MOVEMENT PATTERNS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Locomotion** | **Intensity** | **0-5m** | **6-10m** | **11-15m** | **16+m** | **Total** | **Distance** | **% Total (Distance/Total)** | **Average**  **(m)** |
| **Walk** | **Low** | 13 | 4 | 2 | 0 | **19** | 97 | 16% | 5 |
| **Jog** | **Med/Low** | 4 | 12 | 6 | 4 | **26** | 266 | 44% | 10 |
| **Shuffle** | **High** | 9 | 10 | 3 | 2 | **24** | 180 | 30% | 7.5 |
| **Sprint** | **V. High** | 8 | 4 | 1 | 0 | **13** | 63 | 10% | 4.8 |
| **Totals** |  | **34** | **30** | **12** | **6** | **82** | **606** | **100%** |  |

NB- Enter appropriate distances

**Table 2. SKILL FREQUENCY**

The average number of repetitions of each skill:

|  |  |
| --- | --- |
| **Skill** | **Frequency** |
| Pushes | 7 |
| Hits | 15 |
| Flicks | 10 |
| Dribble – 5m | 3 |
| Dribble > 5m | 1 |
| Intercept | 10 |
| Tackles on opposition | 16 |
| Disposals | 22 |
| Corners | 0 |
| Change of Direction | 30 |
| Lunges | 25 |
| Traps | 18 |

**Figure 1. HEART RATES (IF MONITORS AVAILABLE)**

## Insert own heart rate(s) in similar table



**Work to Rest Ratio (Timemotion)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Analysis Date** | 19 June 2012 |  |  |  |
| **Player Name** | Player 1 |  |  |  |
| **Analysis Time** | 9:49 |  |  |  |
| **Category** | **Frequency** | **Frequency %** | **Time** | **Time %** |
| **Stand** | 8 | 8 | 0:54 | 9 |
| **Walk** | 26 | 27 | 3:29 | 35 |
| **Jog** | 25 | 26 | 2:51 | 29 |
| **Run** | 14 | 15 | 0:41 | 7 |
| **F Run** | 13 | 14 | 1:06 | 11 |
| **Sprint** | 9 | 9 | 0:48 | 8 |

From this you can calculate work to rest ratios.

Work (Run, F Run, Sprint) Total time % = 26

Rest (Stand, Walk, Jog) Total time % = 63

Work to rest ratio

26:63 or 1:2.4 (Divide both by 26)

**KK3 - Assessment of fitness, including aims, protocols (informed consent and fitness testing), and methods and outcomes of at least two standardised, recognised tests for each fitness component**

What are the rules behind fitness testing?

Specific

Valid

Reliable

Safe

Accurate

Norm referenced

Informed consent

What is informed consent?

Tests covered earlier but need to know the way in which these are conducted

**KK4 + 5 - Fitness training principles, including intensity, duration, frequency, overload, specificity, individuality, diminishing returns, variety, maintenance and detraining**

**Fitness training methods, including continuous, interval, fartlek, circuit, weight/resistance, flexibility, plyometrics, speed, swiss ball and core strength training to improve aerobic capacity, anaerobic capacity, muscular strength and endurance, speed, flexibility and muscular power**

Define including intensity, duration, frequency, overload, specificity, individuality, diminishing returns, variety, maintenance and detraining.

For each training method state the FITD for each

|  |  |  |
| --- | --- | --- |
| Methods | |  |
| Continuos | | Frequency – At least 3 up to 6  Intensity –  Type –  Duration –  Energy system - |
| Fartlek | |  |
| Long interval | | Frequency –  Intensity –  Work to rest ratio  Duration -  Energy system - |
| Intermediate interval | | Frequency –  Intensity –  Work to rest ratio  Duration -  Energy system - |
| Short interval | | Frequency –  Intensity -  Work to rest ratio:  Duration - |
| Speed |  | |
| Weights | Isometric –  Isokinetic –  Isotonic – | |
| Circuit | Individual load -  Fixed time -  Fixed load - | |
| Plyometrics | What does it involve?  What does it develop? | |
| Flexibility | Dynamic  Static stretching | |
| Core strength and swissball |  | |

**KK 3 - Chronic adaptations of the cardiovascular, respiratory and muscular systems to training.**

**List and discuss all chronic adaptions to training for the following systems**

**Aerobic Chronic adaptions**

**Cardiovascular (Then categorize them into heart, blood vessels or blood)**

**Respiratory**

**Muscular**

**Anaerobic chronic adaptions**