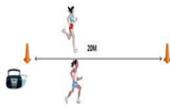


Knowledge Organiser – Unit 1 LAC

COF	How do we Test?		Advantages	Disadvantages
Body Composition	<p align="center">Body Mass Index (BMI)</p> $\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$		Easy to carry out	Results can be misleading as muscles weigh more than fat
	<p align="center">Bioelectrical Impedance Analysis (BIA)</p> <p>BIA = electricity passed through body from WRIST to ANKLE. Measures the resistance from muscle and fat</p>		Quick and gives instant results Can be repeated over time with no bad effects	Needs expensive equipment Cannot eat or drink prior to test
	<p align="center">Sum of Skinfolds</p> <p>Use CALLIPERS to measure skin on the BICEP, TRICEP, CHEST, SUPRILLIAC and HIP. Add measurements together and use to the JACKSON-POLLOCK nomogram</p>		Provides accurate results quickly	Specialist equipment People revealing skin will make people uncomfortable
Aerobic Endurance	<p align="center">Multi Stage Fitness Test (MST/Bleep test)</p> <p>Cones/Lines 20m apart, run in-between to the sound of a beep. Gradually gets faster. Indicated VO2 max.</p>		Test large groups at once Test maximum effort Indoors or outdoors	Needs assistants if testing large groups Not accurate unless maximal effort
	<p align="center">Forestry Step Test</p> <p>Step/ bench- 33cm for females and 40cm for males. Step up and down for 5 minutes to a metronome. (90bpm/22.5steps a min). Record pulse</p>		Low cost (minimal equipment) Indoor or outdoor Can test on your own Submaximal	People not stepping in time Finding pulse 15 seconds after finishing
Speed	<p align="center">35m sprint test</p> <p>Sprint from one line/cone to another in a straight line over 35m. Record time and compare to normative data</p>		Little equipment Cheap	Human error of assistant affects results (reliable)
Muscular Strength	<p align="center">Grip dynamometer</p> <p>3 attempts, squeeze grip dynamometer measure result in Kg or KgW. 1 min rest inbetween.</p>		Simple and easy test Lots of normative data	adjusted for hand size which may affect results Only test arm/hand strength
Flexibility	<p align="center">Sit and Reach test</p> <p>Both feet against the sit and reach box, reach forward and measure result in centimetres. 3 attempts.</p>		Well known test Quick and easy to perform	Only lower back and hamstring Long arms effect results
Muscular Endurance	<p align="center">1 minute Sit up and press up tests</p> <p>Count how many sit ups or press-ups completed in 1 minute</p>		Cheap / easy Little equipment Large groups at once	Technique has to be perfect and the same Only does arms / abdomen
Agility	<p align="center">Illinois Agility test</p> <p>Cones set up as in the image, lie face down on the floor at the start, measure time to complete course in seconds</p>		Cheap / easy Large groups at once	Human error of assistant Weather / needs to be dry
Power	<p align="center">Vertical Jump test</p> <p>Stand side on to wall reach up and measure. Then jump and measure difference between the 2 points.</p>		Quick easy to do Accurate with chalk	Technique Explosive so could cause injury