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Fulwood academy PE Knowledge Organisers: Fitness



Year 7: Fitness Knowledge Organiser

Key Skills:

Three Elements of a Warm up

Pulse raiser – This allows us to increase our heart rate and the amount of blood pumped around our body which carries more oxygen to the muscles we are using.

Stretching – Increased blood flow to the muscles. Increased range of motion at the joints. Reduced risk of injury.

Increased intensive activity – This allows the participant to take part in activities relevant to the sport/ activity to be undertaken.

Increase mental preparation.

Purpose of a cool down – Return heart rate to resting levels gradually. Remove LACTIC ACID from the body (reduce muscle soreness).

Effects of exercise on the body – Breathing and Heart Rate increase with intensity of exercise.

Pulse rate – Pulse rate (the number of times your heart beats in a minute) can be taken at either your wrist or neck. The normal rate =70-100BPM

How to take your pulse rate: -

Gently place 2 fingers of your other hand on this artery.

1. Do not use your thumb, because it has its own pulse that you may feel.
2. Count the beats for 30 seconds, and then double the result to get the number of beats per minute.

Stretch and Challenge Task:

Note where the Radial and Carotid sites are for taking the pulse.
Describe activities that may raise the pulse rate.

Main Muscles



Key Content and Terms to learn:

Warm up; Cool Down; Heart Rate; Body Temperature

Year 8: Fitness Knowledge Organiser

Key Skills: Components of Fitness/ Tests for Components of Fitness:-

Muscular endurance- The ability to use muscles repeatedly for a long period.

1 Minute Sit-Up Test &

1 Minute Press-Up Test

Cardiovascular/Aerobic Endurance - Being able to exercise the whole body for a long period using oxygen and nutrients efficiently. **Cooper 12-Minute Test; multi stage & Harvard Step Test**

Muscular Strength- The amount of force that muscle produces in one contraction. **Grip Dynamometer**

Flexibility- The range of movement possible at a joint. **Sit and Reach Test**

Body Composition- The measure of how much of your body is made up of fat-free mass, vital organs and fat. **Body Mass Index**

Agility- The ability to change direction at speed (quickly) without losing balance. **Illinois Agility Run Test**

Balance- The ability to maintain centre of mass over a base of support. **Stork Balance Test**

Co-ordination- The smooth flow of movement needed to perform a motor task efficiently and accurately using two or more body parts together.

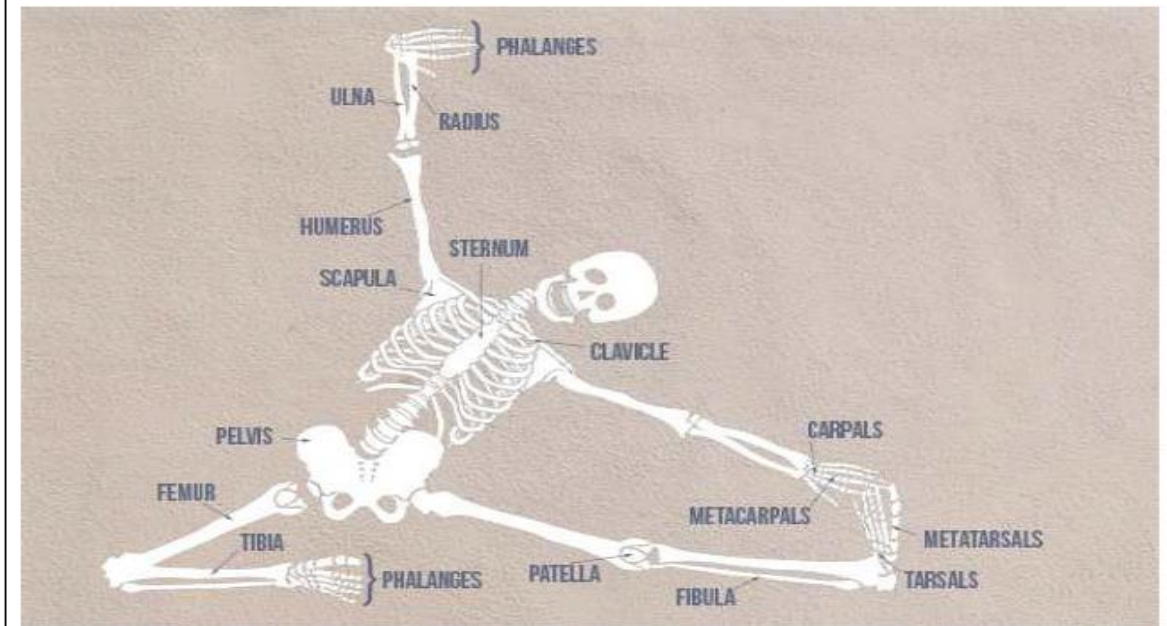
Alternate Hand Wall Toss Test

Power- Speed X Strength **Vertical Jump Test**

Reaction time- How quickly someone can react to a stimulus. **Ruler Drop Test**

Speed- How quickly an object or human moves from 'A' to 'B'.

30m/40m Sprint Test



Stretch and Challenge Task:

Link the Components of fitness to specific Sports/activities.

Describe Training that could be undertaken to improve components of Fitness.

Key Content and Terms to learn:

Endurance; Aerobic; strength; Flexibility; Agility; Balance; Coordination; Power; Reaction Time; Speed and Body Composition.

Year 9: Fitness Knowledge Organiser

Key Skills:

Aerobic means "with oxygen and anaerobic means "without oxygen."

Aerobic Exercise: This occurs when blood is carried through your vessels to deliver oxygen to the muscles to keep you moving, and you sustain the activity for more than just a few minutes.

Anaerobic Exercise: short, high intensity exercise. At the point in time where the energy you are using does not allow the body to create enough oxygen.

Training Methods:-

Interval -Athletes training with periods of work followed by periods of rest

Continuous -Training for a specific period of time with no rest

Fartlek -A combination of slow and fast running over a variety of distances and terrains

Cross -A mixture of training

Circuit -A number of exercises, set out at 'stations' to avoid exercising the same muscle group consecutively

Weight -Using progressive resistance, either in the form of actual weight lifted or in terms of the number of times the weight is lifted

Flexibility – Either Ballistic; Static or PNF.

Plyometric – Involves jumping and immediately Jumping again.

Speed Training – Could include Hollow Sprints ; Acceleration and Interval Training

Stretch and Challenge Task:

Devise a Training Programme for a Specific Sport



Key Content and Terms to learn:

Maximum Heart Rate (MHR), Aerobic and Anaerobic exercise, Types of training methods