

SPORTSMANSHIP

When performers act in a manner **with positive etiquette**. Showing good morals and doing the right thing.

GAMESMANSHIP

When performers act in a manner that uses methods that are not illegal or rule breaking but may not be seen as being fair. **Bending the rules**.

STRENGTH, MUSCULAR ENDURANCE AND POWER TRAINING

Strength = The maximum force that can be generated by a muscle or muscle group.

Muscular Endurance = The ability of muscles to continually contract over a period of time against a light to moderate resistance load.

Power = The product of strength and speed.

OLYMPIC & PARALYMPIC VALUES

Friendship
Respect
Excellence
Determination
Inspiration
Courage
Equality



STRENGTH, MUSCULAR ENDURANCE AND POWER TRAINING

1. Circuit Training

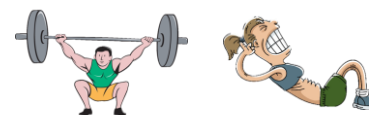
- ❖ Usually performed in a big indoor space. Participants perform different exercises in a specific order at approx. 8-15 stations.
- ❖ Different areas of the body are worked to improve strength/endurance.

2. Free Weights

- ❖ This type of training can be seen in fitness suite e.g. with the dumbbells.
- ❖ The idea of this training is to develop strength, power or muscular endurance.

3. Plyometrics

- ❖ A type of exercise that involves explosive types of sports specific movements.
- ❖ A lot of jumping, hopping, incline press-ups and lunging.



WARM-UP

1. Pulse Raising Activity

- ❖ Pulse raising activities gently raises the heart rate.
- ❖ E.g. Jogging, cycling, skipping.

2. Stretches

- ❖ Stretches should be dynamic (moving, not held). They prepare the muscles.
- ❖ E.g. High knees to stretch the hamstrings, heel flicks to stretch the quadriceps.

3. Skill-Based Activity

- ❖ This is the final part of the warm-up.
- ❖ This is where you familiarise yourself with the skills and actions that will be needed in the session.
- ❖ E.g. Passing the ball in rugby.

TRAINING PRINCIPLES - FITT

Frequency – The number of training sessions a person completes in a week.

Intensity – How hard your heart works in relation to your heart rate.

Max. HR = 220 – Age 60% = Aerobic threshold, 80% = Anaerobic threshold

Time – How long you train for. This depends on what you are training for!

Type – The type of training you do e.g. continuous vs. interval training. This depends on what you are training for.

Progressive Overload = In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance.

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COMPONENTS OF PHYSICAL FITNESS – FABS MS

1. **Flexibility** – The ability to move a joint fluidly through its complete range of movement.
2. **Aerobic Endurance** – The ability of the cardiorespiratory system to work efficiently supplying oxygen to working muscles during exercise.
3. **Body Composition** – The relative ratio of fat mass to fat-free mass in the body.
4. **Strength** – The maximum force that can be generated by a muscle or muscle group.
5. **Muscular Endurance** – The ability of muscles to continually contract over a period of time against a light to moderate resistance load.
6. **Speed** - Measured in metres per second. The faster an athlete runs over a given distance, the greater their speed.

COMPONENTS OF SKILL RELATED FITNESS – CRAP B

1. **Co-ordination** – The smooth flow of movement needed to perform a motor task efficiently and accurately e.g. do more than one thing at the same time.
2. **Reaction Time** – The time taken for a sports performer to respond to a stimulus.
3. **Agility** – The ability of a sports performer to quickly and precisely move or change direction without losing balance.
4. **Power** – The product of strength and speed. Power is needed in many sports.
5. **Balance** – The ability to maintain centre of mass over a base support; dynamic and static.

AEROBIC ENDURANCE TRAINING

Aerobic Endurance = The ability of the cardiorespiratory system to work efficiently, supplying oxygen to working muscles during exercise.

1. Continuous Training

- ❖ When a person trains at a steady pace at moderate intensity for a minimum of 30 minutes.
- ❖ E.g. Mo Farah will use continuous training.

2. Fartlek Training

- ❖ When the intensity of the training is varied by running at different speeds or over different terrain.

3. Interval Training

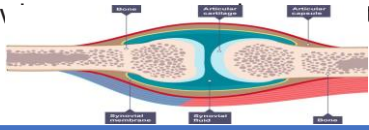
- ❖ This is where the individual performs a work period followed by a rest or recovery period.

4. Circuit Training

- ❖ Where different stations/exercises are used to develop strength and endurance.

Joints

A joint is a place where two bones meet and is also called an articulation

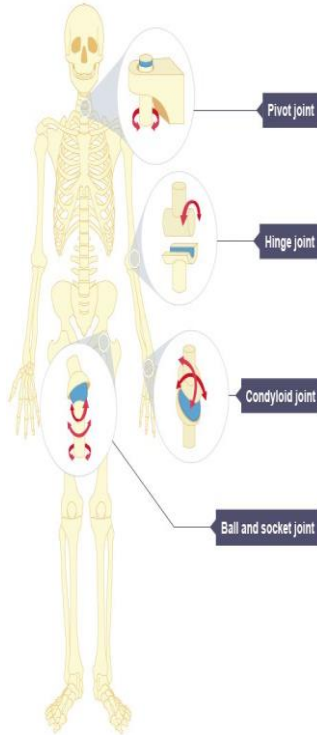


Hinge - these can be found in the elbow, knee and ankle. They allow flexion and extension of a joint.

Ball and socket - these types of joint can be found at the shoulder and hip and allow movement in almost every direction.

Pivot - this joint can be found in the neck between the top two vertebrae. It allows only rotational movement such as moving your head from side to side as if you were saying 'no'.

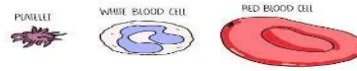
Condyloid - this type of joint is found at the wrist. It allows you to flex and extend the joint, and move it from side to side.



Short term effects of exercise

- Cardiovascular system-Increase in stroke volume (SV); increase in heart rate (HR); increase in cardiac output (Q); increase in blood pressure (BP)
- Respiratory system-Increase in breathing rate; increase in tidal volume
- Cardio-respiratory system-increase in oxygen uptake; increase in carbon dioxide removal
- Energy system--increase in lactate production
- Muscular system-ncrease in temperature of muscles; increased pliability; muscle fatigue

- Red blood cells - these transport oxygen around the body



Using drugs or alcohol can cause dehydration-induced seizures and damage immune systems. This increases susceptibility to infection and further complications, psychotic behavior, and serious cardiovascular conditions, including heart attacks and collapsed veins



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	Long term effects of exercise
Cardiovascular system	Cardiac hypertrophy; increased stroke volume (SV); decrease in resting heart rate (HR); increase in maximum cardiac output (Q); capillarisation at the lungs and muscles; increase in number of red blood cells; increased size and strength of the heart; drop in resting blood pressure due to more elastic muscular wall of veins and arteries
Respiratory system	Increased vital capacity; increased number of functioning alveoli; increased strength of the respiratory muscles (internal and external intercostals and diaphragm); increased lung capacity and volume
Energy system	Increased production of energy from the aerobic energy system; increased tolerance to lactic acid
Muscular system	Muscle hypertrophy; increased strength of tendons; increased strength of ligaments
Skeletal system	Increase in bone density

Fitness Test

- Strength - Hand grip dynamometer
- Maximal strength - One rep max test
- Select the body part that is to be tested and use the weight lifting technique for that body part - for example quadriceps a leg extension, pectorals - bench press
- Cardiovascular endurance - Multi-stage fitness test
- Flexibility - Sit and reach test
- Speed - 30 metre sprint test
- Muscular endurance - 60 second press-up test
- Muscular endurance - 60 second sit-up bleep test
- Agility - Illinois agility test
- Coordination - Alternate hand wall toss test
- Reaction time - Ruler drop test
- Balance - Standing stork test
- Power - Vertical jump test



Aerobic and Anaerobic activity

- Aerobic exercise (in the presence of oxygen) eg long distance running
- Bi product of aerobic exercise is water and carbon dioxide
- Anaerobic exercise (in the absence of enough oxygen eg sprinting)
- Bi product of anaerobic exercise is Lactic acid

Sedentary lifestyle

A sedentary lifestyle is one with no or irregular physical activity and an excessive amount of daily sitting. Consequences-obesity, Depression, Type 2 diabetes, Poor muscle tone, osteoporosis.



Water Safety

Make sure you have permission to swim at your chosen spot.

- Look out for safety signs!
- If a sign says “no swimming” and/or “danger” don’t swim there. When there are signs, they are there for a reason.
- Avoid weirs, locks and other structures. These can create underwater currents that can pull even strong swimmers underwater.
- Have entry and exit points that are accessible by everybody. You need to be able to enter and exit the water slowly in a safe way. (The majority of accidental drownings involving children occur within 2m of safety, where the child could not get out!). Avoid jumping into the water.
- Children should never swim, or indeed be near open water without parental supervision



Barriers to participation in sport

Lack of transport, income, role model, facilities
Solutions-Provision, Promotion and access



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Sportsmanship--When performers act in a **manner with positive etiquette**. Showing good morals and doing the right things.

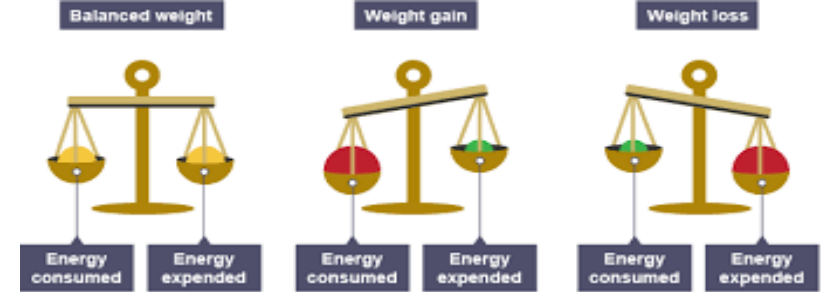


Gamesmanship

Bending the rules, making use of dubious methods that are not strictly outside of the rules to gain an advantage



Energy balance



Cardiovascular system

- Transport system for oxygen, carbon dioxide and nutrients
- Veins - Carry deoxygenated blood back to the heart
- Arteries - Carry oxygenated blood away from the heart and to the body



Redistribution of blood

During exercise, the cardiovascular system **redistributes the blood** so that more of it goes to the **working muscles** and less of it goes to **other body organs such as the digestive system**. This **redirection of blood flow** is caused by a mechanism (or

process) called the **vascular shunt mechanism**.

Diet

Carbohydrates provide energy, Proteins are consumed to help with muscles growth and repair. Fats, minerals. Vitamins. Fibre. water

Carbohydrates are primarily involved in energy production. Stored in the muscles and the liver as **GLYCOGEN**. They provide the energy to exercise and should form 60% of our daily intake.

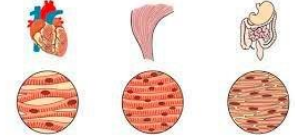




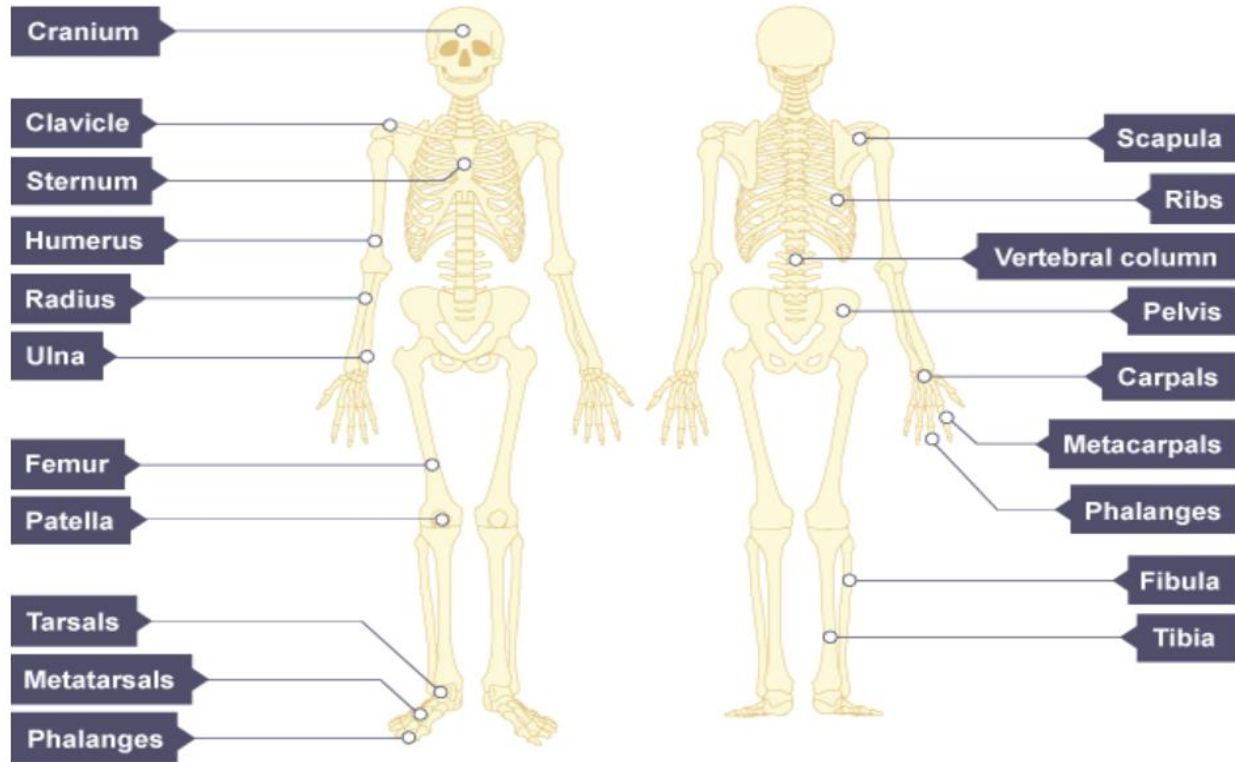
Types of muscles

- smooth muscle - found in the internal organs and blood vessels - this is involuntary.
- cardiac muscle - found only in the heart - this is involuntary
- skeletal muscle - attached to the skeleton - this is voluntary.

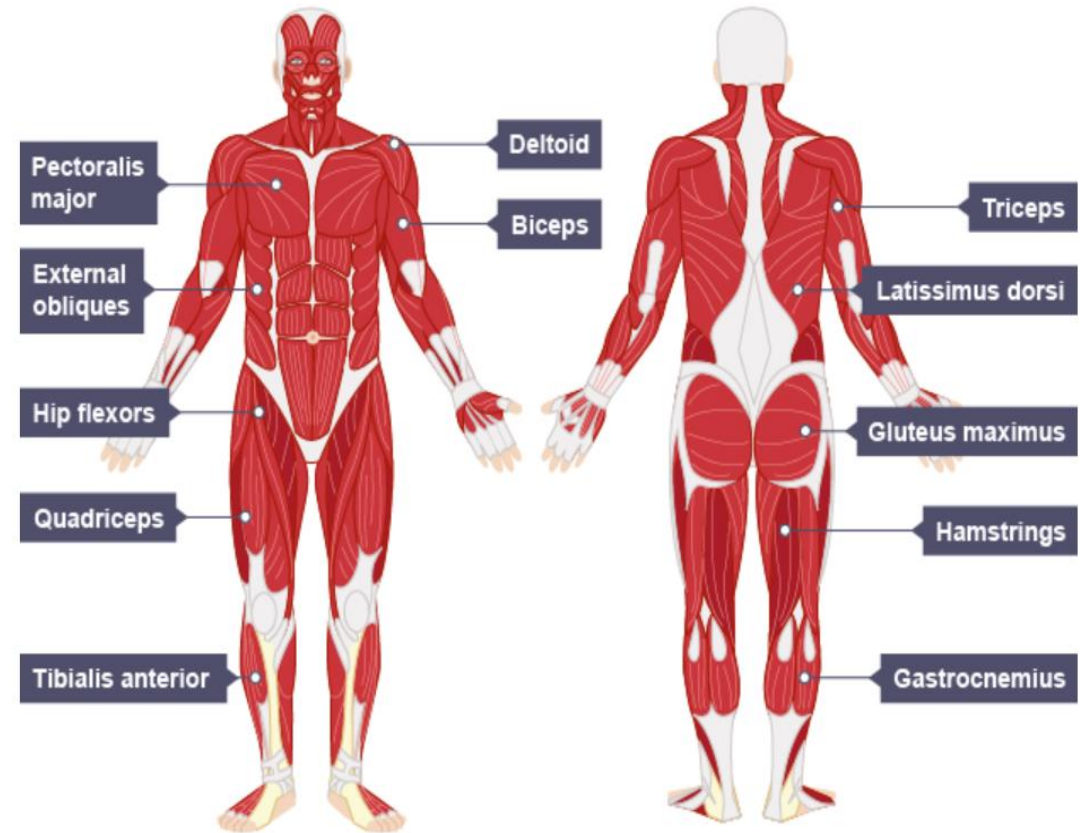
Types Of Muscle



Skeletal System



Muscular System



Vocab bank

