

Key Vocabulary – Skill-related fitness

Agility – the ability to quickly and precisely move or change directions without losing balance or time
Balance – the ability to maintain the centre of mass over a base of support
Static balance – no movement – headstand position
Dynamic balance – there is movement – not falling over when performing a cartwheel
Coordination – the smooth flow of movement needed to perform a motor task smoothly and efficiently
Power – the product of strength and speed expressed as the work done in a unit of time.
Reaction Time – time taken to respond to a stimulus and the initiation of their response

Key Vocabulary – Exercise Intensity

Intensity – how hard an athlete is working, judged by measuring **heart rate (HR)**
Training Threshold – the level of intensity recommended to improve cardiovascular health and fitness (60-85% of HR max)
Borg Scale – Rate of Perceived Exertion – How hard an individual thinks they are working on a scale of 6 – 20.

BTEC Sport Knowledge Organiser – Unit 3

Component of Fitness	Fitness Test
Agility	Illinois agility test
Muscular endurance	Sit up test Press up test
Aerobic endurance	Multi-stage fitness test
Speed	35m sprint test
Flexibility	Sit and reach test

FITT Principle
 Frequency = how often you exercise
 Intensity = how hard you exercise
 Time = how long you exercise
 Type = what kind of exercise you do

- SMARTER Targets**
- Specific
 - Measurable
 - Achievable
 - Realistic
 - Time-Related
 - Exciting Recorded

BORG Scale	
Rating of perceived exertion	Intensity
6	No exertion
7	
8	
9	
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard
18	
19	
20	Maximal exertion

Key Vocabulary – Components of Physical Fitness

Aerobic Endurance – the ability of the cardio-respiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity
Muscular Endurance – the ability of the muscles to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load without getting tired
Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or group
Flexibility – having adequate range of movement in all joints of the body; the ability to move the joint fluidly through its full range of movement
Body Composition – the relative ratio of fat mass to fat-free mass (vital organs, muscle and bone) in the body
Speed – distance divided by time taken, measured in m/s.
Accelerative Speed – sprints of up to 30m
Pure Speed – sprints up to 60m
Speed Endurance – sprints with short recovery period in between.

Goal Setting
 A **short term** goal is something I want to achieve in the near future. It can focus on single sessions and can be from 1 day to 1 month
 A **medium term** goal is something I want to achieve over a longer period of time than a short term goal. It can focus on a period of weeks or months (a block of sessions)
 A **long term** goal is normally set around seasons or competitions. In this case something you want to achieve over a longer period of time like over our 6 week programme.

- Training Diary Review**
- Aim
 - Objective
 - Warmup
 - Main Activity
 - Cool down
 - Training intensity
 - How I felt before, during and after the session
 - Personal performances and achievements
 - Progressive Overload/ Changes to next session

Key Vocabulary – Principles of training

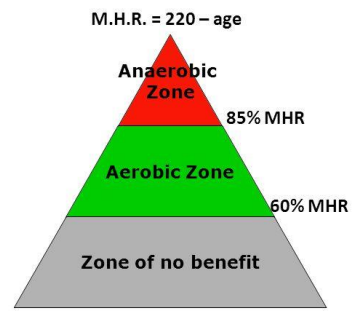
Progressive Overload – In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance
Specificity – training should be specific to the individual's sport, activity or physical/skill-related fitness goals to be developed
Individual differences/needs – the programme should be designed to meet the individual training goals and needs
Adaptation – How the body reacts to training loads by increasing its ability to cope with those loads
Reversibility – if training stops, or the intensity of training is not sufficient to cause adaptation, training effects are reversed.
Variation – Vary the training regime to avoid boredom and maintain enjoyment

Thresholds of Training

Long term benefits of training:

- Heart wall gets thicker.
- Blood vessels gain elasticity.

- Heart gets bigger.
- RHR drops.
- Blood volume increases.
- More capillaries around muscles.



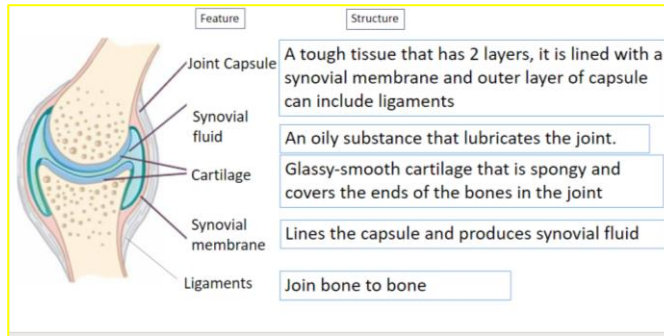
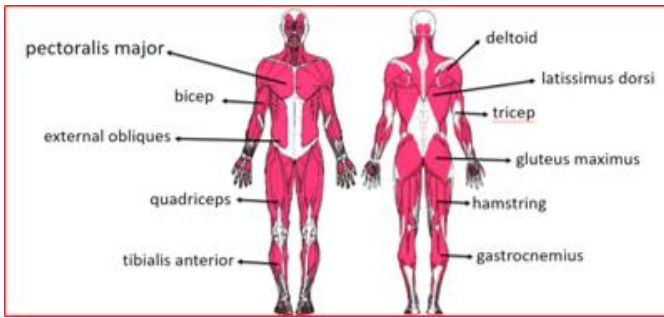
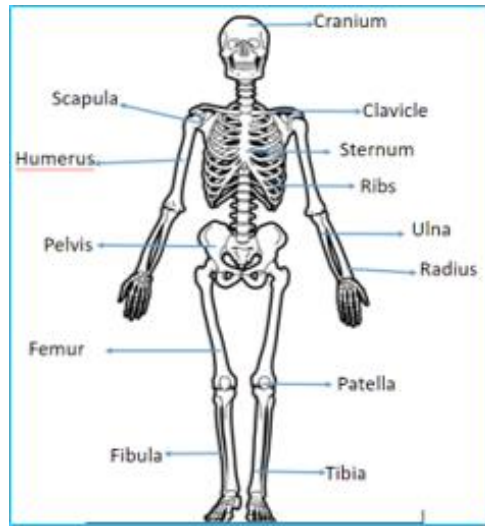
Max Heart rate = 220 - age

Training Zone = 60% - 85% of max heart rate

A training plan for triathlon should develop aerobic and muscular endurance. It needs to be specific to the activities – swim, bike, run. It should allow time for rest and recovery.

Training should be demanding enough to cause the body to adapt. It gets harder by increasing the number of session (F), increasing how hard you exercise (I) or how long you exercise for (T)

Musculoskeletal System



Function of the Skeleton

- Support
- Protection
- Movement
- Mineral Storage
- Blood Cell Production

Types of Movement

- **Flexion** – decreasing the angle of bones at a joint
- **Extension** – increasing the angle of bones at a joint
- **Abduction** – movement where limbs are moved away from the midline of the body
- **Adduction** – movement where limbs are moved towards the midline of the body
- **Rotation** – turning a limb along its axis or movement around an axis

Cardiorespiratory System

