

Knowledge Organiser

Unit 3 BTEC Sport Level 2



Introduction

This unit is all about you, the individual performer, training to improve and enhance personal fitness for one activity/sport you participated in for Unit 2: Practical Performance in Sport. You must select one component of fitness and one method of training that is most appropriate, beneficial and engaging to improve your fitness for your chosen activity/sport. This may mean training with a group of friends in a local park, or using a personal fitness training programme at a local sports club or leisure centre. Whatever the setting, the design of the training programme must be tailored to meet your personal training goals, aspirations and needs.



Training diary for each session recording

- Date, time and location for training undertaken.
- Aims and objectives for each session.
- Session duration.
- Type of training undertaken – selected method/activity.
- Programme details (FITT).
- Log of personal performance and achievements.
- Resources required, e.g. equipment.
- The principles of progressive overload and details of how progressive overload has been achieved over the course of the programme.
- Details of programme intensity using % HR max and RPE.



Programme design

Personal information to aid training programme design. E.g. DOB. Appropriate training method/activity for improving/maintaining the selected component of fitness, e.g. **flexibility, strength, muscular endurance and power, aerobic endurance, speed.** Personal training needs, goals, aims and objectives.

Programme design

- Application of the basic principles of training - Frequency, Intensity, Time and Type (FITT).
- Application of the additional principles of training.
- Selection of appropriate activities for warm-up (light, continuous physical activity to prepare the body for exercise).
- Selection of appropriate activities for cool down (light, continuous physical activity to reduce heart rate, remove lactic acid and prevent blood pooling).
- Creative design: consideration given to prevent/avoid barriers to training occurring, ensuring exercise adherence is maintained and the programme is enjoyable, for example including interesting, different exercise activities to maintain motivation and commitment, and to prevent boredom.
- Intensity:
 - o target zones and training thresholds (calculating and applying maximum heart rate (HR max) to training):
 - o HR max = 220 – age (years)
 - o 60–85% HR max is the recommended training zone for cardiovascular health and fitness
 - o Borg Rating of Perceived Exertion (RPE) Scale (1970) (6–20) can be used as a measure of exercise intensity
 - o the relationship between RPE and heart rate where $RPE \times 10 = HR$ (bpm).



Applying the Principles of Personal Training



Safely implement a personal fitness training programme

- Using an appropriate training method (e.g. taking part in planned sessions), performing to the best of your ability, gaining agreement from coach/trainer for any missed sessions, understanding the importance of commitment.
- Wearing correct training gear, safe and correct use of equipment, implementation of correct technique, awareness of wider safety issues, e.g. personal safety if training outdoors.
- Students should take responsibility for completing and recording details for each training session. For example a register and keeping record of medical conditions etc.

Programme design and additional information

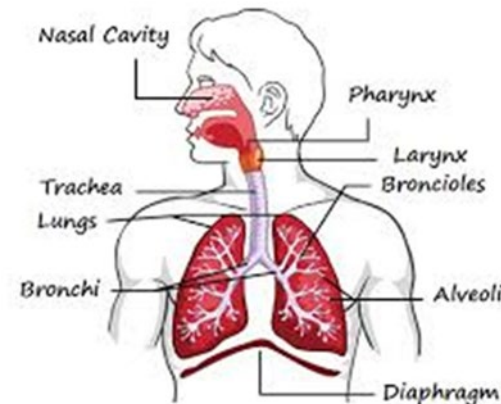
- Lifestyle and physical activity history. This is normally in relation to smoking and alcohol use.
- Medical history questionnaire. This could be highlighting asthma or a recent sports injury.
- Attitudes, the mind and personal motivation for training.



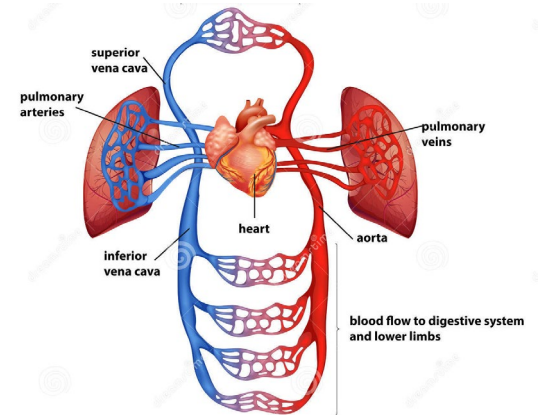
Cardiorespiratory system

Short-term effects of fitness training on the cardiorespiratory system include: increased heart rate and breathing rate to supply oxygen to the working muscles. Increased build-up of lactic acid in the muscles.

Respiratory system

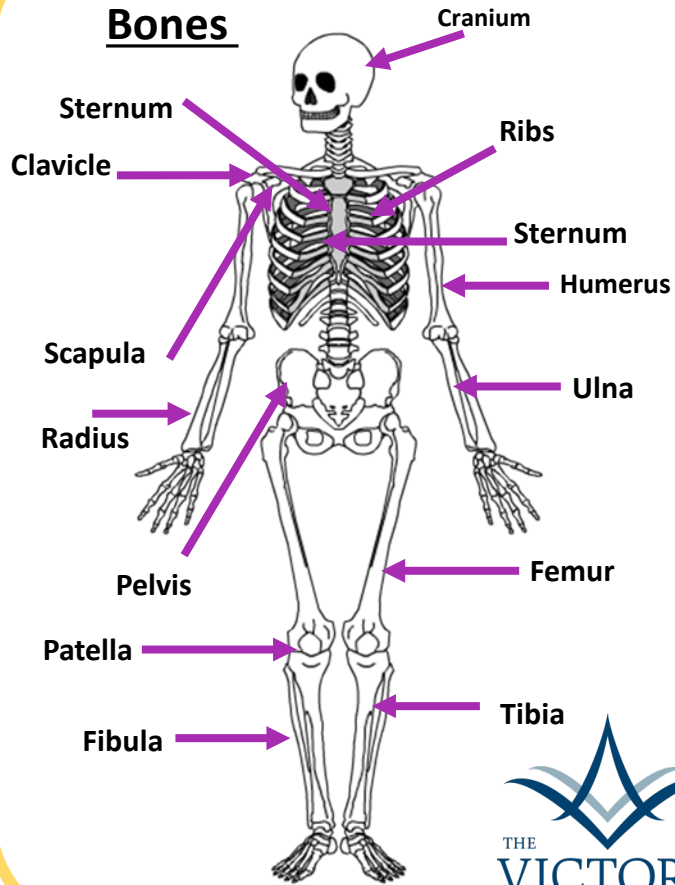


Cardiovascular system

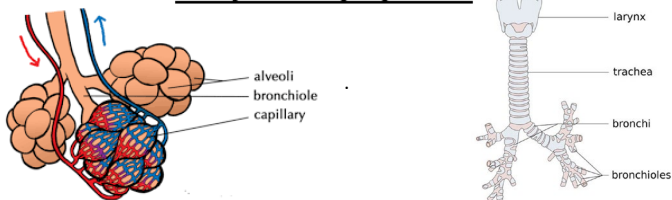


Musculoskeletal system

Bones



Respiratory system



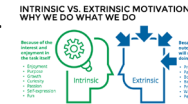
Measures for success

Types of motivation

Intrinsic:- Involves doing something because it's personally rewarding to you and you want to improve.

Extrinsic :- Involves doing something because you want to earn a reward or avoid punishment.

- Benefits of motivation and self-confidence to successfully complete a fitness training programme.
- Motivation for training, including details in the diary of personal feelings before, during and after each training session.
- Details of how the programme has been adapted to ensure continued commitment to training, for example using a variation of activities/training methods.
- Achievement against personal aims and goals.



Training programme design

- SMARTER targets (specific, measurable, achievable, realistic, time-related, exciting, recorded).

Development plans should include:-

- Aims and objectives
- Goals
- SMARTER targets (specific, measurable, achievable, realistic, time-related, exciting, recorded).
- Activities and opportunities, e.g. training, courses, qualifications
- Possible barriers. (Finance, transport, equipment and injury)



Goal setting

- Short-term goals (set over a short period of time, between one day and one month)
- Medium-term goals (should give progressive support towards achievement of long-term goals)
- Long-term goals (what they want to achieve in the long term, and the best way of doing this).

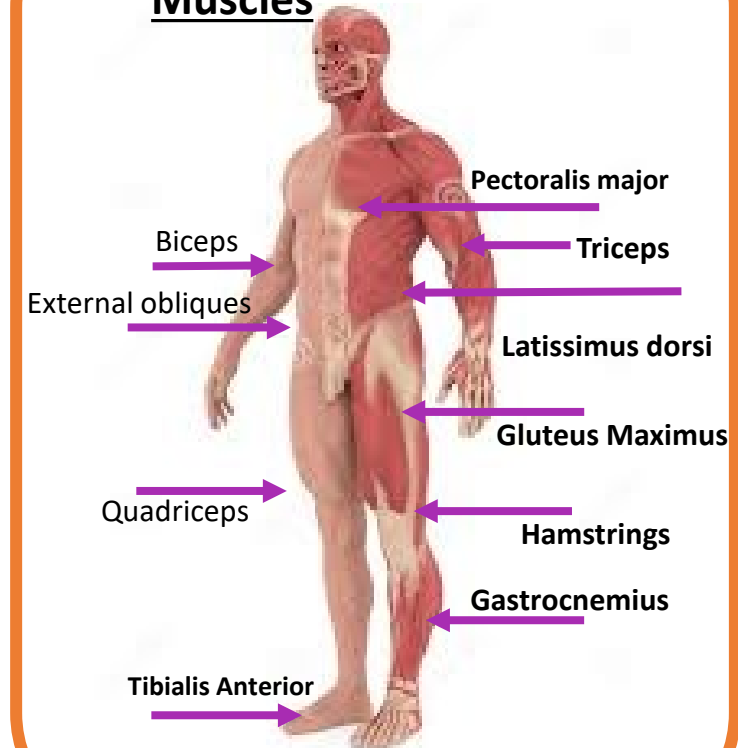
Aims and Objectives

- Aims (details of what they would like to achieve for the selected activity/sport).
- Objectives (how they intend to meet their aims using an appropriate component of fitness and method of training).
- Lifestyle and physical activity history.
- Medical history questionnaire.
- Attitudes, the mind and personal motivation for training.



Musculoskeletal system

Muscles



Review

Review, including short term physiological effects, improvements as a result of the programme to meet the activity/sport goal.

- After each training session.
- Evidence of modifying the programme to achieve planned personal goals.
- Strengths: areas of the programme where and how personal aims and objectives have been achieved with reference to measures of success.
- Areas for improvement: where outcomes do not meet planned goals.
- Recommendations for improving future training and performance, for example personal training needs, use of different training methods/activities or strategies, use of psychological training techniques to improve performance.

