# PHYSICAL EDUCATION – The Principles and Methods of Training



SPOR and principles of training

Intensity

Frequency

Duration

# PRINCIPLES OF EXERCISE

### Overload

Training must be raised to a higher level than normal to create the extra demands to which your body will adapt

## Specificity

Training must be specific to the sport or activity, the type of fitness required and the particular muscle groups.

### Progression

As your body adapts to training, you progress to a new level of fitness. To then take this to the "next level", a gradual increase in intensity is needed to create an overload.

## Reversibility

The effects of training are reversible. If exercise is reduced in intensity or even stopped, the benefit can be lost quickly.

# Adaptation

With continued practice, your body will eventually turn a new sport, activity or movement skill into second nature.

# Individual Differences

Each person has a different response to an exercise or training program and each person needs to exercise and train accordingly.

### **FITT Principles**

FITT	
Frequency	the number of training sessions completed over a period of time, usually per week.
Intensity	how hard an individual will train.
Time	how long an individual will train for.
Туре	how an individual will train by selecting a training method to improve a specific component of fitness and/or their sports performance.

### Method of training

## CONTINUOUS-



- Long periods of moderate work, without rest.
- Improves cardiovascular fitness and muscle endurance.
- Suitable for distance runners and tri-athletes.

# -FARTLEK (SPEED PLAY)-



- · A continuous workout, involving changes in speed and/or terrain.
- Improves recovery time and both aerobic and anaerobic fitness.
- Suitable for cross country runners and team games involving changes in speed.

### CIRCUIT-



- A series of exercises performed in a circuit.
- · Improves cardiovascular endurance and muscular endurance.
- Excellent for general fitness and can be structured to suit most sports.

# -INTERVAL-



- Involves alternating periods of work and rest.
- Can be used to improve speed, recovery time. and aerobic and anaerobic fitness.
- Suitable for team games involving short bursts of speed.

# FLEXIBILITY/MOBILITY



- . Stretching methods including static, dynamic and Proprioceptive Neuromuscular Facilitation (PNF).
- · Improves range of movement, reducing the chance of injury.
- · Beneficial for all sporting activities, in particular gymnastics and dance.

### -WEIGHT TRAINING-



- · A workout using weights as a form of resistance.
- . Can be tailored to improve muscular endurance, power and strength.
- Suitable for all activities and general fitness/toning.

# -PLYOMETRICS



- · A series of explosive movements such as jumps, bounds, hops etc.
- · Improves power.
- · Excellent for activities that require explosive strength, e.g. long/high jump.

# SAQ (SPEED, AGILITY, QUICKNESS)



- · Exercises aimed at activating neural pathways.
- · Improves speed, agility and quickness.
- . Suitable for team games involving changes in direction.
- Homework 1- Remember the principles of training (SPOR)
- Homework 2- Understand the FITT principles in regards to overloading fitness levels
- Homework 3- Remember all the methods of training and describe their suitability to certain sports
- Homework 4- Design a pre-season training programme for your sport