

KNOWLEDGE ORGANISER – PE



Exercise intensity and how it can be determined:

Exercise intensity: how hard an individual is training.

Heart rate: the amount of beats your heart makes in 1 minute.

The lower and upper rate you should be training between for aerobic endurance is: Lower = 60% and upper = 85%

Maximum heart rate (HR max) = $220 - \text{age (Years)}$

RPE (rating of perceived exertion) is another The RPE (rating of perceived exertion) can be used to predict the exercise HR (heart rate) of an individual by:

$$\text{RPE} \times 10 = \text{HR}(\text{bpm})$$

Training = a well planned programme to improve performance, skill, game ability and fitness, that uses scientific principles.

Progressive Overload – In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance. Overload can be achieved by using the FITT principles

Adaption = this occurs during the recovery period after the training session is complete. Adaption is how your body increases its ability to cope with training loads

Reversibility = any improvement in fitness that takes place as a result of training will be reversed when a person stops. If you are unable to train due to injury or illness fitness levels will decrease. Also known as de-training. If muscles get smaller then this is known as atrophy.

Individual differences/needs = the programme should be designed to meet your training goals, needs, ability, level of fitness, skill level, and exercise likes/dislikes.

Specificity = training should be specific to the individual's sport, activity or physical/skill related fitness goals to be developed

Variation = boredom can lead to a decrease in motivation to train so try to make training fun.

Rest and recovery = these are essential to allow the body to repair and adapt, with renewal of body tissues. If your body doesn't get a chance to recover then the rate of progression can be reduced.

F

Frequency = how often you train. You could increase from training twice a week to training three times a week.

I

Intensity = how hard you train. Intensity can be prescribed using HR or RPE

T

Time = how long you train for. You could increase the time you train from 20 minutes to 25 minutes.

T

Type = type of activity. How you train. The appropriate method/s of training should be selected according to your needs and goals. For example if you wanted to increase muscular strength you may choose to do weight training

FITNESS PRINCIPLES

