

## Paper 1: Types of training

<b>Plyometrics</b>
<b>What?</b> An eccentric contraction is performed and followed by a larger, concentric contraction
<b>Components</b> Power
<b>Advantages</b> ★ Can be performed with little equipment
<b>Disadvantages</b> ★ Requires correct technique to avoid injury
<b>Useful for</b> Appropriate for those who require quick and strong contractions, e.g. sprinters

## Paper 1: Optimising training – training intensities

The intensity of training can be altered in order to train different components of fitness. The calculations needed to work out the intensity of exercise required are provided below:

### Calculations

#### Anaerobic/Aerobic

Anaerobic and aerobic training thresholds are determined by your heart rate during exercise and indicate which energy systems you are using.

#### One Repetition Max

$$1 \text{ RM} = \text{Weight} \left( 1 + \frac{\text{Repetitions}}{30} \right)$$

#### Max heart rate:

- ★ 220 – age (years)



#### Training zone:

- ★ Aerobic: 60–80% of max heart rate
- ★ Anaerobic: 80–90% of max heart rate



#### Strength / power training:

- ★ Performed with weights greater than 70% of 1 RM
- ★ Low number of repetitions

#### Muscular endurance:

- ★ Performed with weights less than 70% of 1 RM
- ★ High number of repetitions