Your notes

GCSE PE: revision notes

Principles of training

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The principles of training

- **Individual needs**: training must match the person's sport, fitness, age and goals.
- **Specificity**: training must match the demands of the sport, such as a sprinter doing short, fast runs.
- **Progressive overload**: gradually making training harder than normal so the body adapts and improves.
- Rest and recovery: the body adapts during rest, so training days must be balanced with rest days.
- **Reversibility**: fitness is lost if training stops ("use it or lose it"). Endurance is lost faster than strength.
- **Overtraining**: training too much without enough rest, causing injury, illness or poorer performance.

FITT

- Frequency: how often you train.
- Intensity: how hard you train.
- Time: how long you train for.
- Type: the method of training.
- Changing one part of **FITT** is a way to apply **progressive overload**, such as running for 30 minutes instead of 25.

Thresholds of training

- **Maximum heart rate** = 220 – age. For a 16-year-old: 220 – 16 = 204 bpm.
- The aerobic training zone is 60% to 80% of **maximum heart rate**: for a 16-year-old, about 122 to 163 bpm.
- The anaerobic training zone is 80% to 90% of **maximum heart rate**.

Seasons

- Pre-season: building general fitness, such as cardiovascular endurance, and specific fitness for the sport.
- Competition (peak) season: keeping fitness and working on skills and tactics.
- Post-season (transition): rest and light activity to recover, while staying active.

Key terms

Specificity	Making training match the demands of the sport.
Progressive overload	Gradually increasing training so the body keeps adapting.
Reversibility	Losing fitness when training stops.
Overtraining	Training too much without enough rest, which can cause injury.
FITT	Frequency, intensity, time and type: ways to plan and adjust training.
Maximum heart rate	220 minus age.
Training threshold	The range of heart rates in which training improves fitness.
Individual needs	Planning training to suit the person.

Quick questions

Cover the answers and test yourself: remembering is what makes it stick.

1. What does the F in FITT stand for?
2. What is the maximum heart rate of a 15-year-old?
3. What is the aerobic training zone?
4. What is progressive overload?
5. What is reversibility?
6. A sprinter doing short, fast runs in training is applying which principle?
7. What can overtraining cause?
8. What is the anaerobic training zone?

Answers

1. Frequency
2. 205 bpm
3. 60% to 80% of maximum heart rate
4. Gradually making training harder so the body adapts
5. Losing fitness when training stops
6. Specificity
7. Injury and poorer performance
8. 80% to 90% of maximum heart rate

Your notes

What to do next

Practise 12 questions on this topic

Try 5 exam questions, with mark schemes

Read the lesson, one step at a time

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