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He trained for 3 months.

At the club, Daniel participated in a training programme which included swimming, aerobic circuit classes and stretching classes.

Daniel took part in a number of fitness tests before and after this training programme.

Both sets of results are shown in the table.

Using the fitness test results, evaluate how the training programme is suitable preparation for a 10k run. (8)

Type your answer in the box.

The sit and reach results show that he has improved by 10 cm, this means that he is more flexible, which could also mean that he has lost weight. The bmi results show that he has 4kg/m² this means that he has lost weight and his bmi is healthy this result may not be accurate if you want to see if you have a healthy weight or not because muscle weighs more than fat so if your bmi is overweight it may be because of the amount of muscle you have. The Vo₂ max results show that he has improved by 10ml/kg/min this means that his aerobic endurance is better which means he will be able to run further than could have done before the training

Do it Now!

Read this response to an 8 marker, how many marks would you give it?

Question 18/18

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Both sets of results are shown in the table.

Fitness test	Pre-training results	Post-training results
Sit and reach	5 cm	15 cm
BMI	27 kg/m ²	23 kg/m ²
VO ₂ Max	35 ml/kg/min	45 ml/kg/min

Using the fitness test results, evaluate how the training programme is suitable preparation for a 10k run. (8)

Type your answer in the box.

Question 18/18

Ewan is 18-years-old and has a 400m race in 12 weeks' time.
He currently trains for 30 minutes twice a week with his coach at the athletics track.

Discuss how the FITT principles could be applied to a training programme for Ewan. (8)

Type your answer in the box.

Candidate answers

Question Part 1

Structure response:

A 400m race would be run and 80-90 percent of a persons maximum heart rate which for Ewan is 202 so he should be running at about 180. The race is run using the lactic acide system as the atp-cp system will only last for the first 20 seconds of the race the next 30-40 seconds would be run using the lactic acid system.

FREQUENCY- if ewan wants to increase the amount of times he trains, it would be advisable that he does this in about 8 weeks away from the event as it would push his fitness a little bit further. However when it comes to 2 weeks from the race he would want to lessen the frequecny to rest and recover to be fresh for the race. If he already tarins 2 times a week i personally think he could do more if he is serious about the race he should eb doing 3-4 training sessions a week to imporve his speed and aerobic endurance. As Ewan is 18 years old his body is almost full developed and is at avery good age for running so he should be able to recover fatser than and older athlete.
INTENSITY- Becasue ewan runs the 400m race he wants to be training both speed and endurance(more towards the speed) so i think if he trains 4 time sa wekk two of them being very high intensity for 30 mintues like he already does he would improve his acceleration to get round the first 30m .He should then to two other sessions where the intensity is lower but for a longer time, this would. he should lower the intesity when he approaches the last 2 weeks before the race for rest and recovery improve his aerobic endurance two finish the race with speed.

TYPE- Ewan shold use a range of training types as his race is inbetween the relms of short and moderatley long distance. For the high intesity sessions he sould be using training mehtods like interval(flat out sprints for 40m with resting time) this would improve his accelerative speed. He could also improve hius pure speed by making the distance longer for example 80m with double resting time. Ewan would definitley want to do fartlek training as it includes running at different speeds and different terrains, this would greatly benefit Ewan as he does not know where the race is so by training on different terrain he can run on anything when it comes to the race. Ewan could also if he needs it be doing leg work with resistance machines which would increase muscular endurance and strength giving him more power to hit the track hard and beat his opponents. The main training for a 400m runner should be for speed endurance as the race is basically a long sprint, so for this he could use and elemnt of continous training crossesd with interval, for example long sprints of 400m but with good resting time. This would give Ewan the chance to practise his race stratergy amd see how much of his maximum heart rate he can use.

TIME- Ewan already says he trains for 30 minutes twice a week, i agree with the 30 minutes if it is at high intensity as Ewan would be two tired to do any longer, he could increase the time if he felt his body was adapting and needed to be pushed further to gain progressive overload. For the less intense sessions i would recomend doing them for a longer time like 1 hour and 15 minutes as its aim is to work on aerobic endurance to get round the last 100m. Both these times would vary on accordance to how near the event is if he is close to the event he could lower the time and rest more however 12 weeks away he wants to be pushing his limits and increasing the time to imporve his fitness.

Read this response to an 8 marker, how many marks would you give it?

Nadia is a club level tennis player. To perform this sport she needs high levels of balance and fast reaction times.

Explain how three other components of skill-related fitness will help Nadia's tennis performance. (8)

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Explain how three other components of skill-related fitness will help Nadia's tennis performance. (8)

	Skill component 1	Skill component 2	Skill component 3
COMPONENT	Power	Agility	Co ordination
POINT	To hit power shots	To change direction at speed around the court	To ensure you hit the ball accurately
EXPLANTION	This will mean it will be harder for the opponents to return the shot. Faster serves mean you will get upper hand in the rally. If you use power when playing a smash shot you could win the point	Need agility to move left to right and front to back around the court for different shots, the opponent may a drop shot or play the shot away from you so may have to change direction quickly in order to reach the shot	This will mean the tennis player will play more accurate shots making it harder for the opponent to return meaning they will score more points. Having coordination will also help you to perform forehands, backhands, smash shots at the right time

