

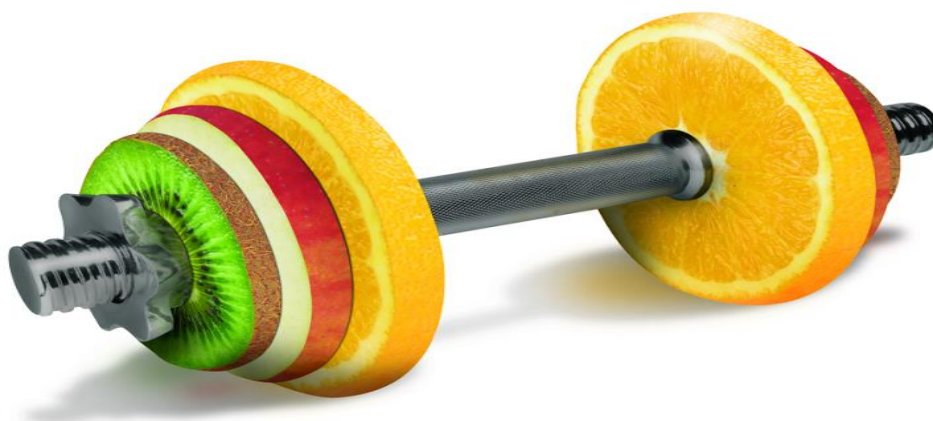


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Examiners' Report/
Lead Examiner Feedback
Summer 2017

BTEC Level 3 Nationals in Sport
Unit 2: Fitness Training and
Programming for Health, Sport and Well-
being (31525H)



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Grade Boundaries

What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, at Distinction, Merit, Pass and Near Pass.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments

Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each assessment, because then it would not take accessibility into account.

Grade boundaries for this, and all other papers, are on the website via this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>

Sport: Unit 2, 31525H

Fitness Training and Programming for Health, sport and Well- being

Grade	Unclassified	Level 3			
		N	P	M	D
Boundary Mark	0	9	18	31	45

Introduction

This was the first series of the new Level 3 Nationals specification for Unit 2: Fitness Training and programming for Health, Sport and Well-being. This unit has been a combination of several previous QCF units such as Exercise, Health & Lifestyle, Fitness Training and Programming, Nutrition and Fitness Testing. This is the first time that these units have been combined as well as being assessed externally through a task based assessment. Overall learners appeared to be well prepared for this style of examination as this was a new concept for many centres and learners with the release of Part A and B being on different scheduled dates and the learner's use of their research notes within the examination period.

The task based assessment followed the same format as the sample assessment material as well as the additional sample assessment material. The task based assessment was split into 6 questions which were all open response answers and were given different marks.

Question 1 looked into the different lifestyle factors of the given individual within the scenario as well as assessing their health monitoring test results. There was a total of 12 marks for this question. Question 2 covered the different lifestyle modification techniques that were appropriate for the individual and would be given a total of 12 marks. Question 3 would ask the learners to propose and justify nutritional guidance for the selected individual and would be given a total of 8 marks. Question 4 covered different training methods for the selected individual and would be given a total of 8 marks. Question 5 asked the learners to design weeks 1, 3 and 6 of a 6-week training programme taking into account the individuals training needs and would be given a total of 6 marks. The final question looked at giving a justification of the design of the training programme that learners had completed in the previous question and this would be given a total of 14 marks.

Introduction to the Overall Performance of the Unit

Learners have performed relatively well across the paper and to the style of assessment being carried out. It was clear that majority of the learners had prepared for the task based assessment in an appropriate manner through the preparation of their research notes which could be taken into Part B of the examination. Question one performed particularly well as there was a vast amount of information on both the lifestyle factors and health monitoring tests that learners could discuss and cover in their answers.

Question 2, Trait 3 of the mark scheme did not answer particularly well as many learners did not give a prioritisation of the lifestyle factors taking into account which ones were the most important and why. More of a link to the lifestyle factors from question 1 could have also been more apparent.

Question 3 performed less effectively as many learners failed to give any specific nutritional guidance that was taken from the unit specification. Guidance such as Recommended Daily Allowance of calories, suggested quantities of both macronutrients and micronutrients and Hydration could have been included more across the board.

Question 6, Trait 2 of the mark scheme was also answered poorly as many learners failed to justify the design of the training programme taking into account the aims and objectives of the programme, resources needed and personal goals of the chosen individual and most importantly periodisation was very poorly covered.

Individual Questions

The following section considers each question on the paper, providing examples of popular learner responses and a brief commentary of why the responses gained the marks they did. This section should be considered with the live external assessment and corresponding mark scheme.

Q1 – Interpret the lifestyle factors and screening information for Helen Jones.

Majority of the marks would be gained if learners could identify both positive and negative lifestyle factors from the screening information and describe these comprehensively. The lifestyle factors that should be covered are Sleep, Diet, Exercise, Smoking, Alcohol, Stress and having a Sedentary Lifestyle.

Learners should also be able to give a detailed analytical approach of the lifestyle factors of the chosen individual, leading to an interpretation of their impact on health and wellbeing. The interpretation should have specific relevance to the health and wellbeing of the individual.

Learners also need to give a detailed analytical approach and interpretation of the health monitoring test results of the chosen individual. The interpretation should be made specifically relevant to the individual and their health and lifestyle. All 4 health monitoring test results should be covered from Resting Heart Rate, Blood Pressure, Waist to Hip Ratio and Body Mass Index (BMI).

This response gained 11 out of 12 marks

Taskbook

Please do not write answers outside the spaces provided.

You must complete all activities in this taskbook.

1 Interpret the lifestyle factors and screening information for Helen Jones.

(12)

One lifestyle factor is exercise, this is a negative in Helens lifestyle because she doesn't exercise at all. This means she is at risk of getting a chronic disease like cancer or type 2 diabetes. Lack of exercise ~~is~~ psychologically can increase the chance of depression and stress. You can see in ~~the~~ her lifestyle that she does get stressed and ~~exercise~~ lack of exercise could be why. Stress is a negative response to the environment which could lead to hypertension or a heart attack. One negative of Helens week is that she works more ^{hours} than the normative data recommends, 37.5 hours per week. However a positive lifestyle factor is that she gets a good amount of time for a lunch break. Helen drives 12 miles

to work. This isn't very far and seems to be lazy when she could bike or walk to a bus stop and get the bus. One negative about Helens lifestyle is not having a balanced lifestyle, this increases her chances of getting stroke as a balance disease improves ~~your~~ immune function. Government recommends people to eat 5 a day and use the eatwell guide to adjust their diets. Helen eats far too much takeaway foods which contain large amounts of fats and dairy. She doesn't eat any fruit so there is a lack of nutrients, minerals and water in her diet. Helen drinks ^{(12 litres) is government recommendation} no water but likes unhealthy drinks like fizzy drink and alcohol. She consumes 18 units a week of alcohol, but the government only recommends 14 units a week, she is drinking far too much, increasing her

calorie intake leading to weight gain. Her timing of her meals are fine as she snacks between the meals however she should snack healthier as crisps, chocolate and doughnuts contain too much sugar, fat and calories. Helen smokes which is harmful to her health due to the nicotine and tar. She could become infertile or get lung disease because of the damage caused over time during smoking. Helens Blood pressure, systolic over diastolic, is on the edge of being hypertension, which is a rise of high blood pressure, this could lead to heart attacks, and it is measured by a digital monitor. Helens resting heart rate is over average, which means she is very unfit, and being unfit could lead to fatigue and depression. You

(Total for Activity 1 = 12 marks)

① heart rate can be measured by the radial artery in your wrist. Helens BMI is telling me that she is ~~over~~ obese, carrying a large amount of fat on her skeleton, which isn't good for her bones as they may break easily and deteriorate. Her waist to hip ratio tells you she is carrying too much weight comparing it to normalative data. Helen sleeps 8 hours a night, which is good because that's what the government recommends as it helps the body to rest and restore. It is greater that Helen eats breakfast as it helps her body function well for the upcoming daily work. Even more so better that she eats fibre for breakfast which helps her digestive system. Helen drinks far too much tea when she drinks little water, one coffee is okay but if she was to drink more of it, it would be unhealthy as it only stimulates mood, not so much hydrating you.

The learner has interpreted and described comprehensively all of the relevant positive and negative lifestyle factors from the screening information. Lack of exercise, diet, smoking, alcohol and stress have all been covered. This part of the answer has fallen into mark band 4 for trait 1 of the mark scheme.

The learner has also given a detailed analytical approach to the interpretation and impact of the lifestyle factors which has been made specifically relevant to the health and wellbeing of the individual. This part of the answer has fallen into mark band 4 for trait 2 of the mark scheme.

There has also been an analytical approach leading to the interpretation of the health monitoring test results and the interpretation has been made relevant to the individual. This part of the answer has fallen into mark band 3 for trait 3 of the mark scheme.

Activity 1

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Interpret lifestyle factors and screening information for an individual	0 No rewardable material	1-4 Lifestyle factors are identified from screening information. An interpretation of the impact of the lifestyle factors might be attempted, however has limited relevance to the health and wellbeing of the individual. An interpretation of health monitoring test results might be attempted, however is generic, lacking relevance to the individual.	5-7 Positive and negative lifestyle factors are identified from screening information, and are described. Attempted analytical approach, leads to an interpretation of the impact of the lifestyle factors; interpretation demonstrates general relevance to the health and wellbeing of the individual. Attempted analytical approach leads to an interpretation of health monitoring test results; interpretation is generally relevant to the individual.	8-9 Positive and negative lifestyle factors are identified from screening information, and are described in detail. Analytical approach leads to interpretation of the impact of the lifestyle factors; interpretation demonstrates relevance to the health and wellbeing of the individual. Analytical approach leads to interpretation of health monitoring test results; interpretation is relevant to the individual.	10-12 Positive and negative lifestyle factors are identified from screening information, and are comprehensively described. Detailed analytical approach, leading to an interpretation of the impact of the lifestyle factors; interpretation has specific relevance to the health and wellbeing of the individual. Detailed analytical approach, leading to an interpretation of health monitoring test results; interpretation is specifically relevant to the individual.

The learner could have picked up the one extra mark by giving a more detailed analytical approach of the interpretation of the four health monitoring test results, making it specifically relevant to the individual within the scenario. This response would have fallen into band 4 for trait 3 of the mark scheme.

Q2 – Provide lifestyle modification techniques for Helen Jones.

The higher band of marks were gained here for proposed lifestyle modification techniques that demonstrated specific relevance to the individual's lifestyle and requirements. A learner should be able to give lifestyle modification techniques based around increasing Physical Activity, reducing smoking, reducing alcohol consumption and stress management techniques. Diet modifications may also be considered here. High end marks would be given to a learner that suggested lifestyle modification techniques that are specific to the chosen individual and their lifestyle.

A learner will also be able to give a justification for the proposed modification techniques that are specifically relevant to the individual's lifestyle factors. The common barriers to change such as Time, Cost, Location and Transport should also be integrated within the justification of the lifestyle modification techniques.

A learner should also be able to give proposals of lifestyle modifications that systematically link to the lifestyle factor analysis. The proposals given should demonstrate an understanding of significance, ie, which is the most important lifestyle modification technique and why.

This response gained 10 out of 12 marks.

2 Provide lifestyle modification techniques for Helen Jones.

11-4
15-3
(10)
(12)

One modification Helen should do is quit smoking because of the damage it causes, ~~logging up~~ ~~arteries~~ she can get help for this by contacting the NHS for information, advice and support, or she could buy nicotine replacements like gum, patches and tablets. Helen could also reduce her alcohol consumption so she is drinking ~~over~~ only 14 units a day and replace it with water so she is making sure she gets the 2 litres of water in her system like the government recommends because her body is 60% water, and due to the lack of it, ~~the~~ the body is finding it hard to function. If she needs help to decrease the amount she drinks she could get counselling where they explore triggers for alcohol. Helen needs

to relax and not be so stressed, ~~can~~ to do this she could try meditating ^(reduces heart rate) where it eliminates negative thoughts or work on her time management. She can work on her time management by achieving daily tasks and minimising unproductive activity. Helen doesn't exercise at all, so she must modify her inactivity is decrease chances of cancer, stroke and hypertension. Exercise will also decrease Helen's blood pressure and heart rate and reduce her waist to hip ratio. Helen could exercise by going for walks and jogs during her work break or cycle to work instead of driving. She could even take part in risk taking activities so that there's an endorphin release, making her motivated to lose weight and making her feel positive. Helen definitely needs to improve her diet, by including more protein

and (meats) so she gets her daily recommendation of 45g per day, down and decrease the amount of calories she eats.

She can decrease them by looking on labels of products or limiting herself to one chocolate bar every few days. By doing so her BMI and waist to hip ratio will decrease as she will be losing weight. Helen must consider barriers to lifestyle modifications like time, cost, transport and location. However because she isn't a professional sportsman ~~error~~ and isn't active at all, she could maintain a healthy lifestyle for free at home. At home she could do housework, gardening or dog walking to keep active. Even in her spare time she could take part in family activities like swimming.

(Total for Activity 2 = 12 marks)

The learner has proposed lifestyle modification techniques that demonstrate specific relevance to the individual's lifestyle and requirements from the targeted scenario. Lifestyle modification techniques have been suggested around all of the lifestyle factors that appear within the screening information in Part B of the task based assessment. The learner has given specific strategies to increase their physical activity, strategies to decrease both smoking and alcohol consumption, stress management techniques and diet advice has also been covered within this answer. This part of the answer has fallen into mark band 4 for trait 1 of the mark scheme.

The learner has also justified the proposed modification techniques and made them specifically relevant to the individual's lifestyle factors. The techniques that have been proposed have been justified in terms of the individual's lifestyle and work commitments. The learner has also included the common barriers to change within their answer and made them specific to the individual and their chosen lifestyle modification techniques. This part of the answer has fallen into mark band 4 for trait 2 of the mark scheme.

The lifestyle modification proposals do systematically link to the individual's lifestyle factor analysis and they do demonstrate an understanding of significance. The lifestyle modification techniques that have been proposed link to the individual's health monitoring test scores and discuss how they would be affected in a positive way. This part of the answer has fallen into mark band 3 for trait 3 of the mark scheme.

Activity 2

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
	0	1-3	4-6	7-9	10-12
Proposed lifestyle modification techniques	No rewardable material	Proposed lifestyle modification techniques are generic, with limited relevance to the individual's lifestyle or requirements. Justification for proposed modifications might be attempted, however has limited relevance to the individual's lifestyle factors. Linkage between proposals and factor analysis might be present.	Proposed lifestyle modification techniques demonstrate general relevance to the individual's lifestyle and requirements. Justification for proposed modifications is often present and generally relevant to the individual's lifestyle factors. Proposals link to lifestyle factor analysis, although there may be occasional lapses.	Proposed lifestyle modification techniques demonstrate relevance to the individual's lifestyle and requirements. Justification for proposed modifications is present and relevant to the individual's lifestyle factors. Proposals systematically link to lifestyle factor analysis; proposals demonstrate an understanding of significance.	Proposed lifestyle modification techniques demonstrate specific relevance to the individual's lifestyle and requirements. Justification for proposed modifications is present and specifically relevant to the individual's lifestyle factors. Proposals systematically and consistently link to lifestyle factor analysis; proposals may be prioritised, demonstrating thorough understanding of significance.

The learner could have picked up the extra two marks by consistently linking their lifestyle modification techniques to their lifestyle factor analysis and health monitoring test scores. The learner could have also given a conclusion that prioritised the selected lifestyle modification techniques for the chosen individual, demonstrating a thorough understanding of significance.

Q3 – Provide and justify your nutritional guidance for Helen Jones to meet her specific requirements.

The proposed nutritional guidance should demonstrate specific relevance to the individual's requirements and health and wellbeing. The recommended daily allowance of calories for the individual should be stated, as well as the quantities and sources of food for both macronutrients and micronutrients. Hydration should also be covered as well as adapting their diet to lose weight to improve their health and wellbeing.

The proposed nutritional guidance should also be justified making it relevant to the individual's dietary requirements. The fact that the chosen individual is now starting to exercise should be considered and taken into account.

This response gained 7 out of 8 marks.

3 Provide and justify your nutritional guidance for Helen Jones to meet her specific requirements.

(8)

- 1 - healthy attainable
- 1 - CHO 60% fat 15% ^{macro}protein 25% ^{micro}BMR. - Saturated - unsat
- 2 - calwen NHS + Gov - high GI - low GI - Timing meals.
- 3 - hydration
- 4 - Dietary/adaptive thermogenesis/energy balance layout.

Within Helen's diet and food intake there are many ways she can reduce her amount of ~~saturated~~ fats and replace them with unsaturated fats. Overall she can improve her diet to be healthy.

Firstly Helen mainly eats saturated fats such as eating a Chinese takeaway and snacking on saturated foods after that such as a doughnut. She does not consume any fruit throughout the day, where the government recommends people to eat 5 pieces of fruit a day. Helen should be making 60% carbohydrates (CHO) 15% Triglycerides and 25% protein. Which are all forms of macronutrient. Within her current diet she is hardly receiving the correct vitamins through not consuming fruit or vegetables such as bananas containing vitamin D. Helen's basic metabolic rate is around 2250 calories a day which is vital she has this amount of calories to stay alive. Helen hardly consumes vitamins and minerals which are vital.

micronutrients she needs to consume.

It's important that Helen replaces most of the saturated fats in her diet to unsaturated fats which is a liquid at room temperature where a saturated is a solid at room temperature. She can do this by replacing the doughnuts, chocolate bars with fruit such as lemon which increases the rate of your metabolism.

She can also use simple and complex carbohydrates by simple carbohydrates (CHO) being ^{high} GI foods which links to the glycemic index being the measurement of glucose being your blood sugar level. Simple CHO are food products such as white bread and rusks which contain high level of CHO and complex CHO are low GI foods such as bran which would be good to have in Helen's diet. Helen should also follow the government guidelines of the Eatwell Plate giving vital advice of the quantities of food you should consume each day.

Such as fruit and vegetables being the biggest quantity. Helen can also spread out her meal timings by having 5 smaller meals a day rather than 3, through her metabolism then not shutting down which means she will be burning calories throughout the day.

Through Helen's eating and drinking plan she consumes no cups of water (Total for Activity 3 = 8 marks) which shows that she could be dehydrated, she

3 Sugary drinks such as wine. She could replace this by increasing her water intake daily and replacing the sugary drinks with water, considering 50-60% of total body weight is water. Water is the main transport mechanism in the body by helping digest foods and removing waste products. If Helen was in a hot climate then she would need to be more hydrated through losing water by urinating and sweating.

It's also important to consider dietary thermogenesis which is the digestion and transportation and also storage of food where eating regular meals burns energy more quickly.

3	<p>There is also adaptive thermogenesis which is the process of burning calories through the temperature of the body, which may not be so reliable to help through living a sedentary lifestyle. It's also important to consider energy balance by the energy input being food and drink and the energy output being exercise which is very unbalanced for Helen by consuming more food than she burns off</p>	L R
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PSM110206

ABS

Question number

	<p>which means she can not maintain a healthy weight</p>

The learner has proposed nutritional guidance that demonstrates specific relevance to the individual's requirements of improving health and wellbeing. The nutritional guidance is specific to the individual as they have stated their recommended daily allowance of calories, the quantities and sources of food for both macronutrients and micronutrients, how hydration can be improved as well as adapting their diet to lose weight and improve health and wellbeing overall. This part of the answer has fallen into mark band 4 for trait 1 of the mark scheme.

The learner has also justified the proposed nutritional guidance and made it specifically relevant to the individual's dietary requirements. The justification takes into account that the individual wants to improve their health and wellbeing by losing weight and also that they will be taking part in exercise in the very near future. This part of the answer has fallen into mark band 4 for trait 2 of the mark scheme.

Activity 3

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Nutritional guidance	0 No rewardable material	1-2 Proposed nutritional guidance is generic, with limited relevance to the individual's dietary requirements. Justification for proposed nutritional guidance has been attempted, however shows limited relevance to individual's dietary requirements.	3-4 Proposed nutritional guidance demonstrates general relevance to the individual's requirements. Justification for proposed nutritional guidance is generally relevant to the individual's dietary requirements.	5-6 Proposed nutritional guidance demonstrates relevance to the individual's requirements. Justification for proposed nutritional guidance is relevant to the individual's dietary requirements.	7-8 Proposed nutritional guidance demonstrates specific relevance to the individual's requirements. Justification for proposed nutritional guidance is specifically relevant to the individual's dietary requirements.

The further one mark could have been gained if the justification for micronutrients was more detailed and made more specifically relevant to the chosen individual. More specific food sources for micronutrients could also have been suggested for the individual.

A high percentage of learners did not include much of the specification within their answer to this question. Learners generally gave nutritional advice around food sources to replace the individual's current diet. To give more specific nutritional guidance, learners must include more from the specification such as Recommended Daily Allowance of calories, suggested quantities and sources of food for both macronutrients and micronutrients, Hydration and adapting their diet to lose weight.

Q4 - Propose and justify different training methods that meet Helen Jones's training needs.

To gain maximum marks for this question learners should be able to propose training methods that demonstrate specific relevance to the individuals training requirements. A learner should be able to propose training methods based around both Aerobic and Muscular Endurance. Proposing training methods around flexibility would also aid in making their answer more specifically relevant. A learner should be able to propose training methods for Aerobic Endurance such as Continuous Training, Fartlek Training, Interval Training and Circuit Training. For Muscular Endurance, it could be Circuit training again as well as Fixed Resistance Machines and Free Weights. For Flexibility, it could be Static stretching, Dynamic Stretching and PNF.

A learner should be able to justify the proposed training methods above making it specifically relevant to the individual's training needs. Learners should be able to state which methods of training would be most appropriate and why.

This response gained 7 out of 8 marks

4 Propose and justify different training methods that meet Helen Jones's training needs.

(8)

Helen's goals are to improve overall health and wellbeing, and do regular exercise in order to gradually improve fitness levels.

In my opinion the best training method which is most suitable for Helen as a beginner is cardiovascular-vascular endurance, specifically continuous aerobic training. This type of training method is relevant in order to achieve the individual's goals and different types of exercise can be adapted in order to prevent Helen's ~~fatigue~~ ^{boredom}.

Helen will need to exercise at approximately 60% of her MHR (103 bpm) to begin with as she is a beginner, and as she progresses she should aim for 75-80% of her MHR (120-138 bpm). Another training method which may be used to build up to continuous ~~exercise~~ ^{training} could be fartlek training. In this way, Helen can vary the intensity from walking - jogging - running, instead of exercising at a continuous intensity. This training method is suitable for her as a beginner and is also relevant to her goals. Helen could even train to develop her

muscle tone with very light resistance training. Fixed resistance machines would be a safer option for her as a beginner as there is a guided range of movement/motion. She would need to perform high reps with a low weight (eg. 30 reps and 3 sets), in order to overcome fatigue. This may be suitable because the size and number of mitochondria will increase, which means that her aerobic training will be more effective (energy for aerobic respiration is from mitochondria). Helen could also undertake core stability training such as yoga and pilates. These exercises show to have positive effects on social, mental and physical wellbeing (which is a part of the individual's goals). Yoga incorporates breathing techniques which might help relieve Helen's chest pains. Circuit training may be an excellent way to improve Helen's fitness levels and burn fat. This may be useful in the 6th week of her training after she has progressed in fitness beforehand, using the other training methods mentioned.

7

(Total for Activity 4 = 8 marks)

The learner has proposed training methods for aerobic endurance, muscular endurance and flexibility showing specific relevance to the individuals training requirements. The learner has discussed continuous and fartlek training to improve the individual's aerobic endurance, fixed resistance machines for muscular endurance and also yoga, which does cover flexibility. The learner has also mentioned circuit training which will aid with both aerobic endurance and muscular endurance. The main two components of fitness here that needed to be covered with different training methods were aerobic endurance and muscular endurance. Adding yoga for flexibility makes the learners answer even more specific. This part of the answer has fallen into mark band 4 for trait 1 of the mark scheme.

The learner has also justified the proposed training methods making it specifically relevant to the individuals training needs. The learner has stated the most suitable training methods for each of the main components of fitness that have to be covered for the chosen individual and their training needs giving reasons why. This part of the answer has fallen into mark band 4 for trait 2 of the mark scheme.

Activity 4

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Training methods	0	1-2	3-4	5-6	7-8
	No rewardable material	The proposed training methods are generic, with limited relevance to the individual's training requirements. Justification for proposed methods is attempted however, is not always relevant to the individual's training needs.	The proposed training methods demonstrate general relevance to the individual's training requirements. Justification for proposed training methods is generally relevant to the individual's training needs.	The proposed training methods demonstrate relevance to the individual's training requirements. Justification for proposed training methods is relevant to the individual's training needs.	The proposed training methods demonstrate specific relevance to the individual's training requirements. Justification for proposed training methods is specifically relevant to the individual's training needs.

The learner could have gained the extra one mark if they had included interval training for aerobic endurance, free weights for muscular endurance as well as add more specific flexibility training methods such as static and dynamic stretching. These should have also been justified in relation to the individual and their training needs and lifestyle.

Q5 – Design weeks 1, 3 and 6 of a 6-week fitness training programme for Helen Jones.

Majority of the marks for question 5 would be gained if learners could design a training programme that demonstrated specific relevance to all of the fitness requirements of the individual. Learners must include Aerobic Endurance and Muscular Endurance activities within the programme design. Flexibility training methods would make the programme even more specific to the chosen individual.

The training programme should also demonstrate a thorough understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements. The FITT principle must be applied in full detail to the programme, being specific with the intensity of each activity. Additional principles of fitness training must also be applied such as specificity, overload, progression, reversibility, rest and recovery, adaptation, variation and individual needs. Not all of the additional principles of fitness training need to be applied here but the programme must demonstrate a thorough understanding of these and that they have been taken into account when designing the 3 weeks of the 6-week programme.

This response has gained 6 out of 6 marks.

5 Design weeks 1, 3 and 6 of a 6-week fitness training programme for Helen Jones.

(6)

Week 1

Physical activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
morning	walk to bus stop, bus to work	walk to work, bus to work	walk to work, bus to work	Rest Drive to work	walk to work 2 miles	30 min run @ 50% of max HR	Rest
lunch	20 mins walk = continuous @ 50% MHR (max heart rate)	Rest Healthy lunch = salad	30 min interval training walk to lampost, run to lampost @ 50% MHR	20 min interval training walk to lampost, run to lampost @ 50% MHR	20 min run = continuous @ 40% MHR	Rest	Rest
evening	walk to bus stop, bus home	walk to bus stop, bus home core stability - plank = 30s - dolphin = 2 mins - lunge = 1 min	take bus home core stability - plank = 30s - dolphin = 2 mins - lunge = 1 min	walk home = 2 miles @ 55% MHR core stability = plank = 1 min static stretching = 5 mins	Rest drive home active stretching 10 min passive stretch with legwear 15 min	yoga class 30 mins	Rest

Week 3

Physical activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
MOM	cycle to work = continuous @60% MTHK	walk to work	walk to work	cycle to work = continuous @60% MTHK	walk to work	45 min run = continuous @60% MTHK	Rest
	Forest 30 min @60% MTHK	30 min run @60% MTHK	30 min brisk walk @50% MTHK	Rest	30 min run interval training @55% MTHK	passive + active stretching 15 mins	Rest
DZ	cycle name Gym Resistant machines 3 sets 25 reps - bench press - leg curl - bicep curl	Run home @60% MTHK Gym resistant machines 3 sets 25 reps - bench press - delts - trapezius - triceps	8 Station virtut at local school 30 sec at each 3 circuits 1 hour	cycle name @60% MTHK active + passive stretch 15 mins Gym 3 sets 25 reps low weights deltoids, back abdominals	Gym = low resistance 3 sets 20 reps Medium weight - Reetored - biceps - triceps	Yoga class 45 mins	Rest

Week 6

Physical activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
mom	cycle to work @ 6.5 mtk	cycle to work @ 6.5 mtk	cycle to work @ 6.5 mtk	cycle to work @ 6.5 mtk	cycle to work @ 6.5 mtk	50 min run = continuous @ 6.5 mtk	Rest
Wendy	yoga class 30 mins	plyometric ladders, jumps, ropes, medicine balls, benches, hurdles 30 mins @ 6.5 mtk	Rest	30 min interval training bike ride @ 6.5 mtk	skipping 4 rounds of 2 mins each	Pilates class 45 mins	Rest
Julia	walk home interval training 45 mins @ 6.5 mtk	Gym resistance machines 3 sets 25 reps • bench press • leg curl • bicep curl	Football @ 6.5 mtk run, jog, walk 45 mins	Circuits 8 stations 30 sec at each station 3 circuits 1 hour	Gym work fixed resistance 3 sets of 20 reps medium weights • pectoral • bicep • triceps	passive stretching • quads • hamstrings • abs hold for 30 seconds	Rest

(Total for Activity 5 = 6 marks)

The learner has designed a training programme that demonstrates specific relevance to all of the fitness requirements of the individual as they have included training methods for aerobic endurance, muscular endurance and flexibility. The learner has included continuous, interval and fartlek training for aerobic endurance, resistance machines and circuit training for muscular endurance as well as passive and static stretching for flexibility. This part of the answer has fallen into mark band 3 for trait 1 of the mark scheme.

The training programme that has been designed has also demonstrated a thorough understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements. The learner has implemented the FITT principle each week and clearly stated the intensity for majority of the sessions. The training programme is specific to the individual and their needs and lifestyle as it is based around their daily work routine. The programme progresses each week, has included rest and recovery days, has variation included with a variety of different training methods being used and the programme also takes the persons individual needs into account by having simple activities at the start of the programme and progresses these as the weeks move on. This part of the answer has fallen into mark band 3 for trait 2 of the mark scheme.

Activity 5

Assessment focus	Band 0	Band 1	Band 2	Band 3
Six-week training programme	0 No rewardable material	1-2 The training programme is generic, with limited relevance to the fitness requirements of the individual. Certain requirements may be omitted. The training programme demonstrates a limited understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.	3-4 The training programme demonstrates relevance to the fitness requirements of the individual, although not all requirements are covered. The training programme demonstrates an understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.	5-6 The training programme demonstrates specific relevance to all fitness requirements of the individual. The training programme demonstrates a thorough understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.

There was a high percentage of learners that did not include both the main components of fitness for this individual such as aerobic endurance and muscular endurance within the programme. Many learners did not state an intensity for each session for the individual or include the bpm (beats per minute) or MHR (Maximal Heart Rate) where relevant.

Q6 – Justify the fitness training programme that you have designed for Helen Jones.

A learner should be able to give a justification that demonstrates a thorough understanding of the principles of fitness training applied to their training programme. The FITT principle must be justified in relation to their training programme and again majority of the additional principles of fitness training should be justified such as specificity, overload, progression, reversibility, rest and recovery, adaptation, variation and individual needs in terms of the training programme that has been designed.

A learner should be able to give a justification that demonstrates relevance to the design of the training programme and the training requirements of the individual. Learners should be able to justify the aims and objectives of the training programme for the chosen individual as well as any personal goals and resources required. Periodisation should also be mentioned in the context of the design of the 6-week fitness training programme.

This response gained 13 out of 14 marks

6 Justify the fitness training programme that you have designed for Helen Jones.

(14)

The training programme which I have designed for Helen is specific to her requirements as a beginner who has high health monitoring test results and chest pains. The programme ensures this by ~~me~~ incorporating the SMARTER principle, the FITT principle and the SPORVAIR principle also.

In order for her goals to be reached I made sure the programme is specific as it is suitably designed to the individual (as mentioned above). The design is measurable which means that results will be easily seen. It is achievable for Helena to reach her goals and so it is also realistic for that to happen. The programme is also time phased with a deadline of a 6 week period. Even though it is achievable and realistic, it is still exciting for the individual, which helps Helen become motivated and engaged. The results can be recorded because the training can be written down and tracked.

The FITT principle has been successfully applied to the training programme because the frequency is week 1 (is suitable for a beginner (4 rest days)) and gradually increases

to 3 rest days in week 3 and only 2 rest days in week 6. This means that the amount of days in the microcycle (week) that she trains increases. The intensity increases gradually as well as the frequency. I have done this by increasing the time of her warm up by 5 min every 3 weeks, increased the percentage MHR at which she should target to train at and also increased the time at which she has to maintain that heart rate. This means that the effort that she has to input increases after each microcycle. I have also added the amount of times that she contributes in physical activity for each day. For example in week 1 she works out for 1-2 times a day whereas in week 6 she works out 3 times a day (excluding rest days). The type of training is suitable for the individual and is appropriate for the desired outcome of the training itself. In this case it is aerobic continuous training with elements of yoga in week 6. This will allow Helena to reach her goals.

Specificity has been applied because as mentioned, the programme is designed only for ~~Helen's~~ Helen's specific needs and goals. The training gradually gets harder which means Helen is making progression throughout the programme, which predominantly brings her gradually closer to her goals being reached.

Overload has been successfully incorporated into the training programme because of the ~~freq~~ frequency, intensity and time has increased. This means that the individual's body has been pushed to work harder than what it's used to.

Reversibility should not be an issue within ~~Helen's~~ Helen's progress

because I have applied variations ~~add~~ to the programme. This means that the body overcomes the adaptation (keeps it guessing) and will not allow the body to make training easier for itself; potentially reverse the progress.

This also suggests that Helen will not experience tedium (boredom) because the programme changes each week.

For example, yoga is applied in

week 6 and a variety of ~~exercise~~ exercises are dictated e.g. rowing, running, swimming and x-trainer.

Individual training needs have been met because of her medical conditions (chest pain) have been considered and that's why ~~the~~ week 1 and 3 are light. National guidelines for physical activity have also been met. The final feature of the programme is that it contains an ~~apppr~~ appropriate amount of rest and recovery. This means Helen will have enough physiological and psychological rest. She will be mentally prepared to train after her rest ~~&~~ days and also be physically prepared. This is because the microtears in her skeletal muscles will have repaired in the aid of the protein from her new healthy and balanced diet. The individual should successfully meet her goals ~~and~~ with all the lifestyle changes she has established; she may now see the doctor again to see her improved health monitoring results.

(Total for Activity 6 = 14 marks)

The learner's justification has demonstrated a thorough understanding of the principles of fitness training that have been applied to the training programme. The learner has justified the FITT principle in relation to the training programme and individual and they have also included all of the additional principles of fitness training from the specification. They have commented on specificity, overload, progression, reversibility, rest and recovery, adaptation, variation and individual needs in terms of application to the training programme. This part of the response has fallen into mark band 4 for trait 1 of the mark scheme.

The justification given also demonstrates specific relevance to the design of the training programme and the training requirements of the individual. The learner has included the personal goals and aims of the programme for the individual and summarised this with the SMARTER acronym. They have also briefly mentioned and applied periodisation to the training programme and its design. This part of the answer has fallen into mark band 4 for trait 2 of the mark scheme.

Activity 6

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
	0	1-4	5-7	8-10	11-14
Provide a justification for the training programme that has been produced for an individual	No rewardable material	The justification demonstrates a limited understanding of the principles of fitness training. The justification is generic with limited relevance to the design of the training programme, or the training requirements of the individual.	The justification demonstrates a limited understanding of the principles of fitness training applied to the training programme. The justification is generally relevant to the design of the training programme and the training requirements of the individual.	The justification demonstrates an understanding of the principles of fitness training applied to the training programme. The justification demonstrates relevance to the design of the training programme and the training requirements of the individual.	The justification demonstrates a thorough understanding of the principles of fitness training applied to the training programme. The justification demonstrates specific relevance to the design of the training programme and the training requirements of the individual.

The extra one mark could have been gained if the learner had given further justification around the design of the training programme including the resources required and the different objectives set for the individual. Further justification around periodisation could have also been achieved in terms of the training programme design.

There was a considerable number of learners that did not include any principles of fitness training when it came to their justification. Learners spoke about their fitness training programme but only in terms of what they had included for each of the 3 weeks, making their justification show a limited understanding of the principles of fitness training.

Summary

- Please make sure that all centres read the Administrative Support Guide document for BTEC National in Sport that can be found on the Pearson Website at; http://qualifications.pearson.com/content/dam/pdf/BTEC-Nationals/Sport/20161/external-assessment/2017_Sport_ASG_L3_U2.docx Centres need to print off a Learner Record Sheet for each learner taking the task based assessment and these should be submitted with their learner booklet.
- Question 2, trait 3 did not perform as well as expected. Learners need to link their lifestyle modification techniques to the lifestyle factors and health monitoring tests from question one. Learners should also give a conclusion that prioritises the different lifestyle modification techniques for the chosen individual.
- Question 3 did not perform as expected and learners need to ensure that they give more specific nutritional guidance for the selected individual that can be found in the specification. Guidance such as Recommended Daily Allowance of calories, suggested quantities and sources of food for both macronutrients and micronutrients, Hydration and adapting their diet to lose weight.
- For question 5, ensure the FITT principle is fully applied to the training programme including the intensity. For any aerobic based activity, the intensity values must include either MHR (Maximal Heart Rate) or BPM (Beats Per Minute).
- Question 6, trait 2 did not perform as expected. Learners need to ensure they justify the design of their fitness training programme taking into account the aims of the programme, its objectives, personal goals for the individual and resources required. Periodisation should also be mentioned when justifying the design of the fitness training programme.

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