



Pearson



Examiners' Report/ Lead Examiner Feedback

June 2018

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



Sport

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications website at <http://qualifications.pearson.com/en/home.html> for our BTEC qualifications.

Alternatively, you can get in touch with us using the details on our contact us page at <http://qualifications.pearson.com/en/contact-us.html>

If you have any subject specific questions about this specification that require the help of a subject specialist, you can speak directly to the subject team at Pearson. Their contact details can be found on this link: <http://qualifications.pearson.com/en/support/support-for-you/teachers.html>

You can also use our online Ask the Expert service at <https://www.edexcelonline.com>
You will need an Edexcel Online username and password to access this service.

Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your learners at: www.pearson.com/uk

June 2018

Publications Code 31525_1806_ER

All the material in this publication is copyright

© Pearson Education Ltd 2018

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 (Distinction, Merit, Pass and Near Pass). The grade awarded for each unit contributes proportionately to the overall qualification grade and each unit should always be viewed in the context of its impact on the whole qualification.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the 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 should be 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 test 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 test, because then it would not take into account that a test might be slightly easier or more difficult than any other.

Grade boundaries for this, and all other papers, are on the website via this link: qualifications.pearson.com/gradeboundaries

Unit 2: Fitness Training and Programming for Health, Sport and Well-being

Grade	Unclassified	Near Pass	Pass	Merit	Distinction
Boundary Mark	0	10	21	34	47

Introduction

This was the third exam series of the new Level 3 Nationals specification for Unit 2: Fitness Training and Programming for Health, Sport and Well-being. The unit is a combination of several previous QCF units such as Exercise, Health & Lifestyle, Fitness Training and Programming, Nutrition and Fitness Testing. There have been no major changes to the format of the examination from the 1706 and 1801 series.

The task-based assessment followed the same format as the 1706 and 1801 series with the emphasis being around a different scenario. The task-based assessment is split into 6 questions which are all open response answers and are awarded different marks.

Question 1 identified the different lifestyle factors of the chosen 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 awarded a total of 12 marks. Question 3 would ask the learners to propose and justify nutritional guidance for the selected individual and would be awarded a total of 8 marks. Question 4 covered different training methods for the selected individual and would be awarded 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 individual's training needs and would be awarded 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 awarded a total of 14 marks.

Introduction to the Overall Performance of the Unit

Learners are starting to perform consistently better across the paper following two previous exam series. Learners are giving more detailed answers that are both taken from the unit specification as well as being made specific to the given scenario and individual. Learners appear to be using their preparation and research time effectively before part B is released and utilising the use of their notes within the controlled assessment period.

Question 1 responses again performed consistently well across the board due to the amount of information that was available for the learners to discuss within Part A and Part B of the scenario. The scenario allowed for all of the lifestyle factors from the specification to be discussed and their implications on the health and wellbeing of the individual. All four health monitoring tests were also accessible from the scenario. Majority of the responses performed consistently well as learners had a lot of information that they could use within their answer.

Question 2 responded better than the previous 1801 series with learners giving more specific lifestyle modification techniques from the specification for the chosen individual. This series allowed for the learners to give lifestyle modification techniques

based around exercise, alcohol consumption and stress management. A large proportion of learners gave lifestyle modification techniques taken from the specification around these areas with some justification, if not more.

Question 4 and 5 both responded better than the previous 1801 exam series as the individual within this scenario was sedentary, having done no exercise in the past. This made learners responses more awardable as proposing training methods and planning a 6-week training programme was less of a challenge than it was for a specific athlete, which was suggested in 1801. Learners appeared to respond well to this question giving training methods from the specification and planning a 6-week training programme, taking the principles of training into account.

Question 6 performed as expected against previous exam series with a high proportion of learners giving responses based around the principles of training that they had implemented into their 6-week training programme. However, there are still a large number of learners that are giving responses that are away from the mark scheme and are justifying their 6-week training programme without mentioning the principles of training at all. Some learners are also giving limited information around the design of the programme taking into account its aims and objectives, equipment needed, personal goals and finally periodisation. Learners planning their exam time for each question should also be taken into consideration here as there are still a large proportion of responses that appear to have run out of time.

Question 2, Trait 3 of the mark scheme again did not answer particularly well as many learners did not give a prioritisation of the lifestyle factors and lifestyle modification techniques taking into account which ones were the most important and why for the chosen individual within the scenario.

Question 3 did not answer as well as expected this series as learners struggled to give specific and detailed nutritional advice for the chosen individual within the scenario. A large proportion of learners emphasised their advice and guidance around the individual's meal times as well as the fact that they didn't eat breakfast on a regular basis. While this information was important, learners struggled to give more detailed nutritional advice around other aspects of their diet.

For this examination series, the mark scheme for unit 2 had the following percentage weighting for the different questions and traits;

Question/Traits	1	2	3
1	35%	35%	30%
2	40%	50%	20%
3	50%	50%	
4	40%	60%	
5	40%	60%	
6	70%	30%	

This was taken into account when marking the learner work and placing their answers into the relevant mark bands to decide their overall score for each question. This

percentage weighting for the mark scheme may change every examination series to come in line with the current scenario being applied.

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.

Question 1 – Interpret the lifestyle factors and screening information for Christine Timms.

Majority of the marks would be awarded 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 a Sedentary Lifestyle.

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

Learners also needed to give a detailed analytical approach and interpretation of the health monitoring test results for 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 12 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 Christine Timms.

(12)

One negative lifestyle factor is alcohol. The government recommends that we should consume no more than 14 units a week. It can be seen that Christine is currently consuming 28 units per week which is well above Government recommendations. This will therefore increase Christine's risk to chronic disease such as CHD and liver problems. At her current alcohol intake may also explain her poor mental health as it will lead to issues such as depression due to low serotonin levels.

Another negative lifestyle factor is stress. Christine experiences stress on a daily basis. This will have a negative effect on her health as high levels of cortisol will be secreted which is the stress hormone and this can increase her risk to diseases such as angina. This is the narrowing and hardening of blood vessels which leads to

blood pressure increasing. This temporary rise in blood pressure could also put Christine at risk of a stroke as arteries in the brain may split and rupture. The recommended amount of stress is none at all.

A further negative lifestyle factor is a Sedentary lifestyle. This is a lifestyle where there is severe inactivity. Christine has a sedentary job working in an office. This can increase her chances of developing issues such as depression and heart disease and may also be a factor causing her stress.

Additionally, Smoking is a negative lifestyle factor but Christine states that she doesn't smoke. This will have a positive effect on her health as she decreases her susceptibility to CHD, bronchitis and cancer. The government recommends that no-one should smoke any amount and Christine is sticking within these recommendations.

There are also positive lifestyle factors which influence overall health and well-being. One of these is sleep. The national sleep foundation recommends that individuals should get between 7-9 hours a night.

However Christine is currently only getting 5. This lack of sleep could be a cause of her mental health issues and mean she is more likely to suffer from depression.

This lack of sleep could also lead to over-eating resulting in obesity and even heart disease.

Another positive lifestyle factor is physical activity. The government recommends that a woman Christine's age should be doing 150 minutes of aerobic exercise per week and strength exercises on 2 or more days which work all major muscle groups. However, Christine doesn't do any physical activity and this may lead to issues such as obesity which is subsequently going to have negative economic implications for the NHS. Doing no physical activity may also link to Christine's stress as there is no endorphine (feel-good hormones) being released

In her body.

The final positive Lifestyle Factor is diet. The government recommends that an average woman should consume up to 2,000 calories a day. It is clear that Christine consumes nowhere near this amount.

This means that Christine isn't receiving enough high-density lipoprotein (good cholesterol) which keeps the blood flowing and too much low-density lipoprotein which decreases blood flow. This will have negative effects on Christine such as poor immune system functioning which will increase her susceptibility to illness. The government also recommends drinking 6-8 glasses of water per day. Christine drinks nowhere near this amount and this could therefore result in dehydration.

In relation to Christine's screening information, her blood pressure is average at 130/20 mmHg compared to normative data. This is a positive as her chances of strokes and damage to blood vessels will decrease. However, if she

T1 4 T2 4 T3 4

(Total for Activity 1 = 12 marks)

12

1	carries on drinking 25 units of alcohol a week and experiencing stress on a daily basis then her blood pressure will increase, putting her in danger of developing these issues.
	Christine's heart rate is currently <u>85 bpm</u> . The average (normative) for a <u>48 year old female</u> is between <u>74/77 bpm</u> . This shows that Christine's heart rate is way above what it should be so her heart is working harder which may lead to her suffering heart disease, strokes or damage to blood vessels. This increased heart rate could be due to her to low activity levels as well as her alcohol intake and daily stress.
	Christine's <u>BMi of 16.5</u> indicates that she is underweight. Normative data indicates that any <u>Bmi below 18.5</u> is underweight. This could lead to Christine becoming ill and have negative effects on her immune system functioning, putting her at greater risk of illness.



Similarly, her waist-to-hip ratio indicates she is underweight. Christine's is recorded at 0.70 and normative data suggests that 0.85 or above in women means they are carrying too much weight. This means suggests that Christine isn't carrying enough weight which will have further negative effects on her bodily functions.

The learner has interpreted and comprehensively described all of the relevant positive and negative lifestyle factors from the screening information. Smoking, Stress, Sleep, Sedentary Lifestyle, Alcohol, Physical Activity and Diet have all been covered by the learner. 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 each 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 a detailed analytical approach leading to the interpretation of the health monitoring test results and the interpretation has been made specifically relevant to the individual. This part of the answer has fallen into mark band 4 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.

Each scenario for all exam series will always allow for all seven lifestyle factors to be identified from the learner and therefore interpreted in the correct manner. Each scenario will also allow for all four health monitoring test results to be interpreted by the learner.

Question 2 – Provide and justify lifestyle modification techniques for Christine Timms.

The higher band of marks were awarded here for proposed lifestyle modification techniques that demonstrated specific relevance to Christine's lifestyle and her requirements. A learner should be able to give lifestyle modification techniques based around alcohol, stress and physical activity. If a learner was to propose at least one technique from the specification for each of the 3 identified lifestyle factors, then their response would fall into mark band 4 for trait 1.

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 specification states different lifestyle modification techniques for alcohol consumption, physical activity and stress management. Learners should be able to justify in detail at least one lifestyle modification technique from all three of these lifestyle factors making them specifically relevant to the chosen individual in the scenario. Learners should also take into consideration the 'barriers to change' while justifying their proposed 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, i.e. which is the most important lifestyle modification technique and why.

This response gained 12 out of 12 marks.

2 Provide and justify lifestyle modification techniques for Christine Timms.

(12)

Christine needs to adapt her lifestyle for the better if she wants to achieve her goal of improving her overall health and well-being.

One factor which needs to be modified is her alcohol intake. She is currently consuming 25 units a week and she needs to limit this to 14 units or below to stay in line with government recommendations. She can do this by seeking counselling. A counsellor will find the primary trigger of Christine's alcohol intake e.g. stress and attempt to eliminate this trigger, decreasing consumption consequently. Self-help groups such as alcohol anonymous may also help Christine as she can speak to people suffering from similar issues. Alternatively, Christine could replace some of her alcohol intake with water to achieve the 2 litre per day of water intake that the government recommends. If Christine uses these techniques then it will be justified as her screening

results will decrease.

Christine also needs to modify the amount of physical activity she partakes in. She currently does no physical activity. This could be modified by cycling or jogging to work instead of driving. This can be justified as it will enhance her confidence and aerobic endurance meaning that she is motivated to do more exercise. On her work break Christine could also go for a walk and this will be efficient as it will reduce her stress levels also, having a positive effect on her mental health and well-being.

In her leisure time Christine could also join the gym. This will help her build up to improving her general health and well-being.

However, one barrier which may prevent her from doing this is cost. If she can't afford a gym membership then this could be overcome by doing her own circuit or going for a jog for free in her own time. This will subsequently reduce her heart rate to a healthy one of 74-77bpm.

Furthermore, Christine needs to work to eliminate her current stress levels which may be caused by her workload. Christine

could attempt to modify this by goal setting or time management techniques. These will ~~also~~ therefore motivate Christine as she will have a goal to work towards and will also help her balance her time to achieve a good work-life balance which she is currently lacking. Partaking in ~~activity~~ physical activity and meditating could also work for Christine. This can be justified because this will help to eliminate any negativity that she may feel. Subsequently this will also help to modify her screening results.

Additionally, Christine needs to modify her sleep. She currently gets 5 hours a night and this needs to be increased to between 7/9 hours so that she is in line with government recommendations. She could achieve this by partaking in positive risk taking activities. This can be justified as these stimulate endorphine release which promote restful sleep.

~~As~~ As Christine is not a professional athlete, she can overcome barriers to change such as cost, time, location and

transport by promoting a healthy lifestyle for free in the comfort of her own home.

She could complete gardening, housework or even go for a dog walk to improve her lifestyle and these mean that none of the barriers previously mentioned are an issue for Christine improving her health and well-being.

Overall, Christine's main priority should be increasing the amount of exercise she does. This can be justified because if she starts partaking in forms of exercise then this will consequently help with her stress which will then limit her alcohol intake and this could consequently lead to better sleep and diet being adapted.

T1 - 4

T2 - 4

T3 - 4

12

(Total for Activity 2 = 12 marks)

The learner has proposed lifestyle modification techniques that demonstrate specific relevance to the individual's lifestyle and their requirements from the targeted scenario. Lifestyle modification techniques have been suggested around Stress, Alcohol and Physical Activity. The learner has given specific strategies taken from the specification to reduce alcohol consumption and stress management techniques and strategies to increase the amount of physical activity. This part of the answer has fallen into mark band 4 for trait 1 of the mark scheme as the learner has proposed at least one technique from the specification for each of the three identified lifestyle factors.

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 and the 'barriers to change' have also been taken into consideration here. This part of the learner's answer has fallen into mark band 4 for trait 2 of the mark scheme.

The lifestyle modification proposals do systematically and consistently link to the individual's lifestyle factor analysis and they do demonstrate a thorough understanding of significance. The proposals given by the learner have also been placed into a prioritisation through a relevant conclusion. The lifestyle modification techniques that have been proposed link to the individual's lifestyle factor analysis that was identified in Question 1. This part of the answer has fallen into mark band 4 for trait 3 of the mark scheme.

Activity 2

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Proposed lifestyle modification techniques	0	1-3	4-6	7-9	10-12
	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.

Each scenario for the different exam series will always allow for lifestyle modification techniques to be proposed for either stress, alcohol, smoking and/or physical activity. The learner must propose lifestyle modification techniques that are taken from the specification for each of the identified lifestyle factors that need to be addressed for the chosen individual. If the chosen individual does not smoke, then a learner would not need to propose a lifestyle modification technique for this factor.

Question 3 – Provide and justify your nutritional guidance for Christine Timms to meet her specific needs.

The proposed nutritional guidance should demonstrate specific relevance to the individual's requirements. The recommended daily allowance of calories for the individual should be stated, quantities and sources of food for both macronutrients and micronutrients must be proposed as well as hydration levels. To make the nutritional guidance specifically relevant for Christine, the learner must propose for her to adapt her diet to gain weight in a healthy manner. The learner may also wish to mention meal times and not eating breakfast on a regular basis.

The proposed nutritional guidance should be justified making it specifically relevant to the individual's dietary requirements for their health and wellbeing. The fact that the chosen individual has been highlighted as being underweight must be taken into consideration here if the learners response is to fall into the higher mark bands.

This response gained 8 out of 8 marks.

3 Provide and justify your nutritional guidance for Christine Timms to meet her specific needs.

(8)

I would recommend Christine to follow the eat well plate recommended by the government which involves large portions of carbohydrates, her 5 a day, low amounts of sugar and fat and sufficient amount of protein. Christine intake for carbs is very little (bread in small sandwich) and little amount of protein (portion of chicken) she also is intaking the wrong type of fats. therefore her diet is unbalanced and needs to be 55% carbs, 15% fats and 25% protein to ensure she is eating the right amount of foods to maintain weight and improve overall health. Christine's energy ~~but~~ needs ^{to} be balanced to prevent her from ~~losing~~ gaining even more weight. she needs to burn as much energy as she ~~exercises~~ ^{consumes} (food & drink) this is determined by what food she intakes and intensity of physical activity she is considering. Christine's energy is not balanced as she does not eat enough.

(should be at least 2000 calories - BMR of women) she can increase her energy balance by working out her basal metabolic rate. This is the number of calories expended to maintain essential processes such as breathing and organ functioning (accounts for 60-70% total expenditure). As Chrisme is a 48 year old female her BMR will be low as it decreases in age ($8.3 \times 47.7 + 849$) Physical activity represents most variable component of total expenditure. As Chrisme does not exercise her physical activity expenditure is low. As she is considering exercise this will make her total expenditure higher, affecting energy needed for optimum energy balance. ~~Irregular~~ ~~high~~ Dietary thermogenesis is energy expended over BMR for digestion and storage of food (accounts for 10% total energy daily) $\frac{T_1}{T_2}$ $\frac{4}{4}$ certain foods release more energy (2) through atherm as they are harder to digest, releasing more calories. Such (extra paper)

(Total for Activity 3 = 8 marks)

03)

as protein. protein is a macronutrient (required in large amounts) chrismie needs more protein in her diet, at least 45g a day as she are impaired for immunity function which will decrease her chances of getting sick and taking time off work. I would suggest a mix of ~~complete~~ complete and incomplete proteins for a dinner such as chicken, rice and lentils chrismie should also increase her carb intake (50-55%) as this is the body's main energy fuel (glucose break down) this will give her energy to keep up with work life. she should reduce simple carbs such as chocolate ~~and~~ and ~~replace with~~ ~~some~~ increase complex carbs such as bread, pasta and bagels. chrismie's cholesterol should be 15% triglycerides (20g fat a day) therefore she should reduce saturated fat such as chocolate and yogourt as they contain high cholesterol. And replace with unsaturated fat such as seeds and nuts. this means she is less likely to develop fatty deposits on artery walls and consume good fats which absorb vitamins. chrismie ~~should~~ should make sure she has her 5 a day as she only has up to ~~3~~ ~~veg~~ 3 fruit/veg a day.

This will give her micronutrients such as essential foods required in small amounts. I would recommend spinach or dried fruit for iron intake (14.8mg) or orange juice (vitamin C). Meal timing also contributes to healthy weight therefore it is important she has breakfast - this is an important meal as it helps control appetite which she loses. For breakfast she could have porridge with milk (calcium 700mg) or eggs (vitamin D) I would also recommend she eats every 3 hours to make sure she eats the right amount of calories. Looking at the table she does not drink any water which is important because it is 60-65% of our body weight & also helps to transport nutrients, digest food and remove waste products. She should replace alcohol or coffee with water to ensure she intakes 2L a day. In the summer she ~~may~~ may need more due to sweating (water loss) this will prevent dehydration and give her energy. Lastly, chrome is under weight so should increase gains in lean muscle mass rather than fat (may lead to diabetes) she could have protein drinks along with strength training to help her ~~active~~ achieve a healthy weight without consuming fatty foods.

The learner has proposed nutritional guidance that demonstrates specific relevance to the individual's requirements. The nutritional guidance is specific to the individual as they have covered all three macronutrients, their quantities and sources of food, micronutrients their quantities and sources of food, hydration levels and the recommended daily allowance of calories. The individual's meal times and lack of breakfast has also been taken into consideration as well as the fact that the client wishes to start an exercise programme. 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 in detail and made it specifically relevant to the individual's dietary requirements. The justification takes into account that the individual is underweight and that they need to increase their body mass in a healthy manner. The justification also considers that the client will be starting an exercise programme and how this may affect their dietary intake. 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	1-2	3-4	5-6	7-8
	No rewardable material	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.	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.	Proposed nutritional guidance demonstrates relevance to the individual's requirements. Justification for proposed nutritional guidance is relevant to the individual's dietary requirements.	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.

There was a vast majority of learners that focused on giving dietary guidance based solely around meal times and that the client does not eat breakfast. While this is important, learners must also propose other dietary information such as the recommended daily allowance of calories for the individual, macronutrients, micronutrients and hydration levels.

Question 4 – Propose and justify different training methods that meet Christine Timms’ 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 Aerobic Endurance, Muscular Endurance and Flexibility/Core Stability. A learner should be able to propose at least one training method for Aerobic Endurance from Continuous Training, Fartlek Training, Interval Training and Circuit Training. For Muscular Endurance, it could either be Circuit training again as well as Fixed Resistance Machines and Free Weights. For Flexibility/Core Stability, it could be Static stretching, Dynamic Stretching, PNF, Yoga, Pilates and any Gym Based Exercises such as the plank. If a learner proposed at least one training method from the specification for each of the three physical components of fitness identified, then they would fall into mark band 4 for trait 1.

A learner should be able to justify their proposed training methods identified making them specifically relevant to the individual’s training needs. Learners should be able to state which method of training would be most appropriate and why for each of the three physical components of fitness highlighted in this scenario.

This response gained 7 out of 8 marks

- 4 Propose and justify different training methods that meet Christine Timms' training needs.

(8)

For Christine, I recommend that she should take part in continuous training. Continuous training is moving at a steady pace over a long distance. This will improve her aerobic endurance and her cardiovascular fitness. When training like this Christine should aim for 60% of MHR as she wants to burn-fat and 70-80% to improve her aerobic fitness. This will best help her to achieve her goals of becoming more healthy and living a healthy lifestyle as it improves your cardiovascular fitness effectively. Also fuction training which means you vary the intensity in which you train at. This will benefit Christine as she is a beginner and can start at a low intensity to slowly increase the intensity when she is fitter. Finally for aerobic endurance, interval training, which is alternating the intensity in which you work at constantly. This is a good fit because she doesn't become fed up so it will keep her engaged.

To improve her muscular endurance you I recommend using fixed machines at the gym as she is a beginner and these will support her at the start to make it easier and easier. Once she

feels confident move onto free weights and work on muscle toning by training at low weights for longer repetitions (20 reps for 3 sets).

Also circuit training can be used for maintenance and aerobic fitness as they can be made sport specific. This is good for her mental health as it doesn't become repetitive and tedious.

Flexibility is the range range of movements in or around a joint and to improve this Christine should take part in a Static Stretching. This includes active and passive stretching or where active stretching means it can be done individually which is a fine line for her, and passive stretching, means doing the stretch with a partner or on an object. A more advanced method of improving flexibility is through PNF which must be done with a professional to get the best results.

(Total for Activity 4 = 8 marks)

7

The learner has proposed at least one training method for aerobic endurance, muscular endurance and flexibility/core stability from the specification showing specific relevance to the individuals training requirements and the scenario. The learner has discussed continuous, fartlek and interval training to improve the individual's aerobic endurance, circuit training and free weights for muscular endurance and finally static stretching to cover flexibility. 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 them specifically relevant to the individuals training needs. The learner has justified each training method for each of the main components of fitness highlighted that could be used for the chosen individual and their training needs. 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 justified in greater detail each of the proposed training methods for each of the highlighted components of fitness, making them specifically relevant to Christine and her individual training needs. A learner can propose several training methods for one component of fitness, but they should be able to justify in detail at least one of these stating why this may be the most beneficial to the client.

Question 5 – Design weeks 1, 3 and 6 of a 6-week fitness training programme for Christine Timms.

Majority of the marks for question 5 would be awarded if candidates could design a training programme that demonstrated specific relevance to all of the fitness requirements for the chosen individual. Candidates must include Aerobic Endurance, Muscular Endurance and Flexibility/Core Stability activities within the programme design. If a learner included one training method for each of the three highlighted components of fitness then their response would fall into mark band 3 for trait 1.

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 the activities. 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 six-week fitness training programme for Christine Timms.

(6)

Week 1

	Physical activity		
Monday	<p>Morning Drive 1.25 miles walk 1.25 miles</p>	<p>Afternoon Walk 1.25 miles Drive home</p>	<p>Evening Yoga class 20 mins</p>
Tuesday	Rest Day		
Wednesday	<p>Morning Drive 1.25 miles walk 1.25 miles</p>	<p>Afternoon Walk 1.25 miles Drive home</p>	<p>Evening Weight training with FI 45% = 1RM 15 reps 4 sets bicep curl 20 reps rest</p>
Thursday	<p>Drive 1.25 miles walk 1.25 miles</p>	<p>Walk 1.25 miles Drive home</p>	<p>Evening Pilates class 20 mins</p>
Friday	Rest Day		
Saturday	<p>Morning Drive 1.25 miles walk 1.25 miles 2.25 miles with friends</p>	<p>20 min walk with friends</p>	<p>Evening Weight training with FI 45% = 1RM 15 reps 4 sets squats</p>
Sunday	Rest day		

Week 3

	Physical activity		
Monday	Walk all the way to work	Walk home	Pilates class 25 mins
Tuesday	Rest Day		
Wednesday	Walk all the way to work	Walk home	Swimming lengths 50% = MHR 25 mins
Thursday	Walk all the way to work	Walk home	Weight training 50% = 1RM 18 reps 25 secs 5 sets rest
Friday	Walk all the way to work	Walk home	Yoga class 25 mins
Saturday	Rest Day		
Sunday	25 min run with running club	50% = MHR	Weight training 50% = 1RM 18 reps 5 sets 25 secs rest.

Week 6

$$\begin{array}{r} T_1 = 3 \\ T_2 = 3 \end{array} \quad 6$$

	Physical activity		
Monday	Cycle to work 50% = MHR	Cycle to home 50% = MHR	Weight training 55% = 1RM 22 reps 30 secs 6 sets rest
Tuesday	Rest Day		
Wednesday	Cycle to work 50% = MHR	Cycle home 50% = MHR	Yoga class 30 mins
Thursday	Cycle to work 50% = MHR	Cycle home 50% = MHR	Weight training 55% = 1RM 22 reps 30 secs 6 sets rest
Friday	Cycle to work 50% = MHR	Cycle home 50% = MHR	Swimming lengths 60% = MHR 30 mins
Saturday	Rest Day		
Sunday	Pilates class 30 mins	30 mins run with running club	60% = MHR

(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 at least one training method for aerobic endurance, muscular endurance and flexibility/core stability. The learner has included walking and running for aerobic endurance, weight training for muscular endurance as well as yoga core stability/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 work pattern. 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 including all of the relevant fitness requirements. 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	1-2	3-4	5-6
	No rewardable material	<p>The training programme is generic, with limited relevance to the fitness requirements of the individual. Certain requirements may be omitted.</p> <p>The training programme demonstrates a limited understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.</p>	<p>The training programme demonstrates relevance to the fitness requirements of the individual, although not all requirements are covered.</p> <p>The training programme demonstrates an understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.</p>	<p>The training programme demonstrates specific relevance to all fitness requirements of the individual.</p> <p>The training programme demonstrates a thorough understanding of the principles of fitness training, in the context of the individual's lifestyle or training requirements.</p>

There was a high percentage of learners that did not correctly apply the FITT principle to the training programme in question. Many learners did not state an intensity for majority of the sessions for the individual or include the bpm (beats per minute) or MHR (Maximal Heart Rate) where relevant.

Question 6 - Justify the fitness training programme that you have designed for Christine Timms.

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. If learners justify correctly and in detail the FITT principle plus at least 6 additional principles of training, then their response would fall into mark band 4 for trait 1 of the mark scheme.

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 12 out of 14 marks

6 Justify the fitness training programme that you have designed for Christine Timms.

(14)

The aim of Christine's programme was to improve her general fitness levels so aerobic endurance and flexibility. This makes her likely to reach the guidelines of 150 minutes of aerobic activity a week. Help her gain weight, raise BMI, lower RHR and get a good balance.

The programme includes specificity as I ~~the~~ used methods of training suitable for beginners and to increase her cardiovascular fitness and flexibility. My programme progressed to make sure the body doesn't adapt to the same training. The rest periods reduce and frequency as well as intensity increase (week 1 one cycle at 50% MHR but by week 6 this is 80% MHR). For week 3 and 6 I added an overload session to work the body harder than normal to encourage adaptations and stimulate hypertrophy to develop stronger muscles, ligaments etc. There is enough rest throughout the programme to prevent injury and reversibility. If she stops

training adaptations will deteriorate. The stretching included, warming up and cooling down prevent injury. The programme fits her individual needs as it fits around her life as PA for a large company where she feels physically and mentally fit. As she improves, she will move from beginner classes to intermediate. She trains on the way to work and uses her lunch hour to release endorphins for the afternoon. The rest and recovery periods allows her muscles, bones and joints to repair to complete the programme. Higher stress on Christine leads to more adaptations making training easier allowing for progression (e.g. cycling 3 times a week rather than 2).

The FITT principles are shown for Christine as frequency increases of travelling to work without the car. By week 6, she isn't a beginner so can push the body harder but extra stretching is needed to prevent injury. I added a walk on Sunday week 6 to feel calmness. Week 1 has 1 parallel session but week 3 + 6 have 2

Intensity of the programme also increases week 1 the cycle) at 50% MHR but week 6 it is 80% MHR. She also has time for fartlek sessions as she is fitter. Yoga changes from beginner to intermediate as ^{her} muscles need a new challenge. She will not however be overtraining. Many sessions increase in time (e.g. Fartlek 30 mins to 45 mins or swimming 30 mins to 1 hour). It fits around work reducing time for excuses. Type of training has been chosen based on fitness level. Continuous, fartlek and weight fit around her lifestyle best and have the least amount of barriers to overcome unlike circuit training (core stability will help to relieve stress).

Christine's programme is varied in order to preventedium and stimulate muscle growth. I included swimming which is exciting making her more likely to persevere. The programme is specific as she is a beginner, measurable as results can be seen after the 6 week mesocycle, achievable as it is based on fitness history, realistic as it fits around her lifestyle, time bound due to

microcycles being split up and exciting and recordable so she stays motivated

The programme is made up of weekly microcycles forming a 6 week mesocycle. This periodisation gives the programme more structure allowing her to manage physical stress easier. Each microcycle adds new challenge preventingedium and overtraining. If it extended it would become a macrocycle.

Warming up and cooling down prevents injury for Christine. It makes the muscles more pliable increasing range of movement and reduces her heart rate after exercise to prevent blood pooling. Cooling down and stretching further relieves stress and ensures she can reach the end of the programme.

The methods I have used should benefit Christine and prevent barriers such as cost. If she can follow this, she will meet her

(Total for Activity 6 = 14 marks)

12/10

TOTAL FOR TASK = 60 MARKS 12

	6 goals of improved health and wellbeing. Hopefully she will enjoy the programme and be motivated to continue exercising to keep her weight up after the programme and stay close to the government guidelines in all aspects of health, physical and mental.
--	---

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 the individual and they have also included majority of the additional principles of fitness training from the specification. They have commented on variation, specificity, overload, progression, reversibility, rest and recovery, adaptation and finally 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 demonstrates relevance to the design of the training programme and the training requirements of the individual. The learner has included the aim of the programme for the individual and summarised this with the SMARTER acronym. They have also covered and applied periodisation to the training programme and its design. This part of the answer has fallen into mark band 3 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 two marks could have been awarded if the learner had given further justification around the training programme design making it specifically relevant to the

chosen individual in the scenario. The learner could have added the resources to be used in the training programme, the objectives that have been set for Christine and more on her personal goals. This would have allowed the learners response to fall into mark band 4 for trait 2.

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 from question one and give a conclusion that prioritises the different lifestyle modification techniques for the chosen individual. This will allow for more responses to fall into band 4 of the mark scheme for trait 3.
- Question 3 did not answer as well as expected this series. A large proportion of learners emphasised their nutritional advice and guidance around the individual's meal times as well as the fact that they didn't eat breakfast on a regular basis. While this information was important, learners struggled to give more detailed nutritional advice around other aspects of their diet and from the specification.
- 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).
- For question 6, ensure that the learners are justifying the design of their training programme through the application of the principles of fitness training. Some learners are only commenting on what they have planned for on specific days and weeks instead of demonstrating their knowledge around all of the principles of fitness training.

For more information on Edexcel qualifications, please visit
www.edexcel.com/quals

Pearson Education Limited. Registered company number 872828
with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

