

# BTEC Sport

## Summer Bridging Work

Name: \_\_\_\_\_

**Submission Deadline: Monday 7<sup>th</sup> September 2020**

## BTEC LEVEL 3 EXTENDED CERTIFICATE/DIPLOMA: SPORT

Welcome to BTEC Sport. A BTEC is a vocational qualification, and it will help prepare you in a huge range of careers.

The health and fitness industry has grown significantly over the last 10 years, and is set to continue to grow. There is a demand for exercise professionals, and there are great employment opportunities out there for you on completion of this course. You just need to make sure that your CV is full in preparation to apply for University, Apprenticeship and jobs.

The PE Department would recommend that you take every opportunity offered to you, be proactive and do as many volunteering hours as you can; within the PE Department and beyond.

Good luck and most of all, enjoy the course.

Mr Bailey

**Assistant Director of Sport**

During this course you will complete Unit 2 which is Fitness Training & Programming for Health, Sport & Well-being. You will be sitting your first internal exam in January where you will receive a scenario and questions. The exam is 2 ½ hours and covers a variety of areas surrounding Fitness training and Health and Well-being.

Unit 2: Fitness Training and Programming for Health, Sport and Well-being, learners interpret lifestyle factors and health screening data to develop and justify a fitness training programme and nutritional advice for a client. Learners interpret the data using knowledge and understanding from their studies of the sector and apply both transferable and specialist knowledge and skills. In delivering the unit you need to encourage learners to draw on their broader learning so they will be prepared for the assessment.

### **Unit introduction**

The health and fitness industry is concerned with helping to support clients to increase their fitness levels and also ensuring a client is in appropriate health to take on a fitness programme. To work in the health and fitness industry, staff need to know how to assess clients and then be able to plan appropriate training programmes to take into account individual needs. In this unit, you will explore the process required for screening clients and assessing their lifestyle and nutritional intake. How to interpret this information will then be examined. From this information you will explore how to make judgements on a specific individual's current lifestyle and then suggest modifications to help improve the individual's fitness, health and overall well-being. Fitness training methods will be examined for each component of physical and skill-related fitness. The selection of appropriate training methods for a selected individual and their application into a training programme will then be explored. In this unit, you will draw on your learning from across your programme to complete the assessment task. Carrying out client screening and designing fitness training programmes is an essential skill for many people working in the sports industry, including sports coaches looking to improve an individual or team's sporting performance. Any person working in these careers would need to be able to carry out client screening and the design of training programmes in time-constrained conditions, utilising knowledge gained from previous experiences. This unit has been selected as an externally-assessed unit as it replicates the processes that are carried out in the industry, and as a synoptic unit as the knowledge and skills can be applied to the content of a number of units in the qualification.

### **Unit 2: Content**

- A- Examine lifestyle factors and their effect on health and well-being
- B- Understand the screening processes for training programming
- C- Understand programme-related nutritional needs
- D- Examine training methods for different components of fitness
- E -Understand training programme design

## **Unit 2: Task**

You are to read through the following 6 pages.

You are to create a Health and Well-being booklet.

Your booklet must cover the following areas:

- ☐ Types of exercise you can do
- ☐ Benefits of exercise
- ☐ Recommendations for the amount of exercise you must do
- ☐ What's in a balance diet and what strategies can help you find that balance
- ☐ Negative effects of smoking and alcohol
- ☐ Information surrounding stress and sleep
- ☐ How to quit/cut down on smoking and alcohol
- ☐ What barriers may you come across when trying to change

Had a look ☐ Nearly there ☐ Nailed it! ☐

## Exercise and physical activity

It is widely proven that individuals who regularly partake in physical activity or exercise are less prone to significant health problems, ranging from obesity to many chronic diseases.

### Physical and psychological benefits of exercise



### Social and economic benefits

#### Social:

- encourages social interaction
- improves social skills
- reduces isolation
- enhances self-esteem / confidence.

#### Economic:

- reduces NHS costs
- creates employment
- supports businesses
- reduces absenteeism in the workplace.

### Key definitions

**Physical activity** is any activity that increases energy expenditure above resting level.

**Exercise** is physical activity with more structure and is usually undertaken for fitness gains.

**Sedentary lifestyle** is a type of lifestyle with no or irregular physical activity.

Remember, physical activity has to be current and continued for there to be health benefits.

### Examples of physical activity/exercise

- Everyday activities – for example, walking / cycling to work / school, housework, gardening, DIY or any active / manual work as part of a job.
- Active recreational activities – for example, dancing, active play amongst children, or walking or cycling for recreation.
- Sport – for example, exercise and fitness training at a gym or during an exercise class, swimming and competitive sports such as football, rugby and tennis, etc.
- Positive risk-taking activities – for example, activities that promote endorphin release and improved confidence levels, such as rock climbing, sky diving, white water rafting, etc.

### Physical activity/exercise: government recommendations

Children and young people (5–16 years)	Adults (19–64 years)	Older adults (65+ years)
<ul style="list-style-type: none"> <li>• Moderate-vigorous physical activity for 60 min per day</li> <li>• Vigorous activities 3 times a week minimum</li> <li>• Activity for strength – 3 times a week</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate activity 30 min – five times per week</li> <li>• Moderate / vigorous activity – 150 min spread across week</li> <li>• Activity for strength – 2 times a week</li> </ul>	<ul style="list-style-type: none"> <li>• Should be active daily</li> <li>• Moderate / vigorous activity – 150 min spread across week</li> <li>• Activity for strength – 2 times a week</li> </ul>

### Now try this

Jack is a 35-year-old office worker who plays 5-a-side football for two 1-hour sessions per week.

(a) Compare Jack's current exercise to government recommendations.

Had a look ☐ Nearly there ☐ Nailed it! ☐

## A balanced diet

An increasing number of adults and children are classified as overweight or obese. This simply means that many of us are eating more than we actually need.

### What is a balanced diet?

- Eating the right amount of food to achieve / maintain a healthy body weight.
- Eating a wide variety of foods in the right proportions.

The Eat Well Plate shows the different types of food that should make up our diet, and the required proportions we should eat them in.



### Benefits of a healthy diet

These include:

- improves immune function
- increases energy and vitality
- prevents disease and improves mood
- maintains a healthy weight
- reduced risk of developing chronic diseases.

### The NHS key recommendations from the Eat Well Plate

The recommendations are to eat:

- plenty of fruit and vegetables
- plenty of potatoes, bread, rice and pasta
- some milk and dairy foods
- some meat, fish, eggs and beans
- a small amount of food / drink high in fat or sugar.

### Fluid intake

Water is essential for life; it is very important to get the right amount of fluid to be healthy.

To maintain **water balance** a sedentary individual requires **2–2.5 litres** of fluid per day (6–8 glasses).

Physical activity, the weather and age determine how much fluid we require.

### Moderation of caffeine intake

Caffeine is an addictive mild stimulant, which provides **no nutritional value**, so moderate caffeine consumption of around 400 mg (4–5 average cups) per day is recommended.

**Remember** we also get water from the food we eat; on average food provides about 20 per cent of our total fluid intake.

### Strategies for improving dietary intake

- ✓ **Timing of meals** – eat at appropriate times to aid fat burning, reduce hunger and balance stress hormones. Breakfast is the most important meal of the day. Eating late at night can produce negative effects, such as sleep issues, weight gain, heart burn and acid reflux.
- ✓ **Number of meals** – you should aim to eat at regular intervals (every 3–4 hours).
- ✓ **Food choices** – ensure a balance of food groups; aim to eat five fruits / vegetables a day. Reduce salt intake. Aim to consume recommended calories (2500 men/2000 women). Check food labels for healthier options, such as those low in salt / sugar.
- ✓ **Drink alcohol in moderation** – as per government guidelines.
- ✓ **Consider portion sizes** – reduce sizes and avoid second helpings.
- ✓ **Food organisation and preparation** – plan meals the night before, consider how meals are cooked, such as grilling rather than frying.
- ✓ **Eat slower** – it takes the brain time to register.

### Now try this

(a) Many diets don't have time for breakfast. Explain how students can take these meals then

## Negative effects of smoking

Smoking increases your risk of developing more than 50 serious health conditions. Some are fatal while others can cause irreversible long-term damage to your health.

## Smoking statistics

There are about 10 million adults who smoke cigarettes in Great Britain: this is about  $\frac{1}{5}$  of the total UK population.

In Great Britain, 22 per cent of adult men and 17 per cent of adult women are smokers.

Every year, around 100 000 smokers in the UK die from smoking related causes.

Smoking accounts for  $\frac{1}{3}$  of respiratory deaths, over  $\frac{1}{4}$  of cancer deaths, and about  $\frac{1}{3}$  of cardiovascular disease deaths.

## Smoking and cancer

Lung cancer is the most common form of cancer associated with smoking. It also causes cancer in many other parts of the body, including the:

- mouth
- lips
- throat
- voice box (larynx)
- oesophagus (the tube between your mouth and stomach)
- bladder
- kidney
- liver
- stomach
- pancreas.



The age at which you start smoking appears to be significant in the risk of developing lung cancer.

## Smoking – heart-related conditions

Smoking damages your heart and your blood circulation, increasing your risk of developing conditions such as coronary heart disease, heart attack, stroke, peripheral vascular disease (damaged blood vessels) or cerebrovascular disease (damaged arteries that supply blood to your brain).

## Smoking – lung-related conditions

Smoking also damages your lungs, leading to conditions such as chronic obstructive pulmonary disease (COPD), which incorporates bronchitis and emphysema/pneumonia.

## Other health-related problems

Smoking can also:

- worsen/prolong the symptoms of respiratory conditions such as asthma, or respiratory tract infections such as the common cold
- cause infertility – male and female smokers are likely to have more fertility problems than non smokers.

## Ten health benefits of stopping smoking

Stopping smoking provides the following benefits:

- ✓ breathe more easily
- ✓ gives you more energy
- ✓ less stressed
- ✓ better sex life
- ✓ improves fertility
- ✓ improves smell and taste
- ✓ younger looking skin
- ✓ whiter teeth and fresher breath
- ✓ live longer
- ✓ protects your loved ones from second-hand smoke inhalation.

## Now try this

Recall **three** of the negative effects of smoking.

## Negative effects of alcohol

Drinking too much on a single occasion or over time can seriously affect health.

## Key points

- 1 Alcohol is legal for those aged 18 and over. This doesn't mean it's any less powerful than other drugs.
- 2 Alcohol is a depressant, which means it slows down your body's responses in all kinds of ways.
- 3 Moderate consumption can make you feel sociable; too much and you'll have a hangover the next day.
- 4 Excessive consumption of alcohol in a single session could put you in a coma or even kill you.

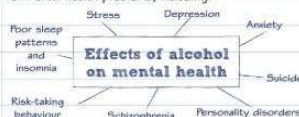
## Effects of alcohol on the body

Short-term effects include nausea, vomiting, blackouts, memory loss and anxiety.



## Mental health problems

Alcohol is sometimes used to help cope with difficult situations/emotions/reduce stress and relieve anxiety, but, in fact, alcohol can be associated with a range of mental health problems, including:



## Empty calories

Alcohol is high in sugar, equalling calories.

These are 'empty calories' and have no nutritional value. The calories in alcohol are metabolised first by the body, ahead of burning fat, which is not desirable if on a weight loss programme.

## Key term

**Metabolism** – the chemical processes that happen in the body to keep us alive and allow our organs to function normally, such as breathing, repairing cells and digesting food.

## Government recommendations and guidelines

✓ Men and women are advised not to regularly drink more than 14 units a week.

✓ Spread your drinking over three days or more if you drink as much as 14 units a week.

Examples of units in common drinks



The number of units in a drink is based on the size of the drink as well as its alcohol strength.

## Now try this

Sam meets his friends four nights a week in his local pub, consuming approximately three pints of lager on each occasion. Compare Sam's alcohol intake to government recommendations.



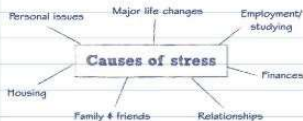
## Stress and sleep

Stress and a poor sleep pattern can interlink – affecting how we feel, think, behave and how our body works.

### What is stress?

Stress is the feeling of being under too much mental or emotional pressure.

Pressure turns into stress when you feel unable to cope. People have different ways of reacting to stress, so a situation that feels stressful to one person may be motivating to someone else.



### Long-term effects of stress

These include:

- poor immune system
- skin conditions
- heart disease / heart attack
- stroke
- hypertension
- angina
- stomach ulcers
- depression.

### Some of the effects of stress

How you might feel	How you might behave	How you might be physically affected
Irritable	Find it hard to make decisions	Problems sleeping / staying asleep
Anxious / nervous	Poor concentration	Tired all the time
Depressed	Eating too much / too little	Headaches
Lonely	Tearful / crying	Constipation / diarrhoea
Can't switch off	Smoking / drinking more than usual	Feeling sick / dizzy / faint

### Role of sleep

Sleep is a restorative state which plays a vital role in our health. If sleep is cut short, the body doesn't have time to complete all the phases needed for:

- muscle repair
- memory consolidation
- release of hormones regulating growth and appetite.

### Effects of poor sleep



### Recommendations

The NHS recommends that we need approximately **8 hours** of good-quality sleep a night to function properly. Some individuals need more or less.

**Sleep requirements vary with age.**

### Now try this

Paul is stressed on a daily basis because he has a demanding workload; he only allows himself an average of 6 hours sleep per night.

- Compare this to the NHS recommendations for sleep.
- How might his sleep pattern cause him additional stress?

## Barriers to change

Different barriers may present themselves in tackling health behaviours; particularly individuals embarking on physical activity. Strategies are essential to overcome these barriers.

### Barriers to exercise



It is important to understand some of the most common barriers to physical activity and create strategies to overcome them, so that physical activity can be part of daily life.

### Overcoming the time barrier

"I don't have time to exercise!"

- Prioritise and manage your daily routine / schedule; identify available time slots.
- Incorporate exercise into your daily routine, such as when travelling to and from work.
- Adapt what you do at work; for example, exercise in your lunch hour, use the stairs instead of the lift, stand up while making phone calls, have walking meetings.
- Adapt leisure time activities; undertake a new activity.
- Select activities that require minimal time.

### Overcoming the cost barrier

"I can't afford a gym membership!"

- Walking to work or increasing activity at home (gardening, housework) is free.
- Walking and jogging are low in cost.
- Exercise at home – press ups, squats, workout DVDs.

### Overcoming the transport/location barrier

"The gym is too far from my house!"

- Less reliance on the car increases activity levels.
- Consider your location and how it can be used to maximum benefit. If it's local, walk.
- When commuting, get off one stop earlier and walk the remaining distance.
- Park your car further away and walk.

### Overcoming lack of energy/motivation

"I don't have the energy, I can't be bothered!"

- Schedule exercise when you have most energy or plan ahead.
- Think positively: exercise will increase your energy levels.
- Invite a friend.
- Exercise in the morning to avoid excuses.
- Ensure a variety of activities.
- Set achievable goals.

### Overcoming family obligations as a barrier

"I don't have time to exercise because of the children."

- Trade babysitting with a friend, neighbour or family member.
- Exercise with the kids or when they are not around.
- Get a bike or use home gymnasium equipment.

### Now try this

Consider **two** strategies you would employ if your client says 'Exercise is boring'.

## Smoking cessation strategies

Giving up smoking is probably the biggest single step we can take to improve our health. However, this can prove to be challenging, as nicotine is a powerful and addictive substance.

### Ten self-help tips

Making small lifestyle changes may help when quitting smoking:

1. thinking positively
2. making a plan to quit
3. dietary changes
4. drinking changes
5. identifying the times when we crave cigarettes
6. getting some stop-smoking support
7. getting moving
8. making non-smoking friends
9. keeping the hands and mouth busy
10. making a list of reasons to quit.

### Advantages and disadvantages of acupuncture

Acupuncture is a treatment derived from ancient Chinese medicine in which fine needles are inserted at certain sites in the body for therapeutic or preventative purposes.

- Stimulates the release of natural painkilling substances: endorphins
- Effective for some individuals
- Limited scientific evidence to support effectiveness
- Costly.

### Smoking helplines

Smoking helplines such as the NHS Smoking Helpline may be available for free.

[Links](#) Go to page 46 to revise the effects of smoking.

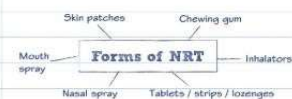
### Other services

Stop-smoking services, such as the NHS Smoking Services may also be available for free. It is worthwhile speaking with a GP to find out the services available.

Quit kit support packs – these contain free useful tools to help support quitting smoking.

### Nicotine replacement therapy (NRT)

NRT works by steadily releasing nicotine into the bloodstream at lower levels than in a cigarette, without the tar, carbon monoxide and other poisonous chemicals present in tobacco smoke, helping to control cravings.



There is no evidence that one type of NRT is more effective. Choice is down to personal preference.

### Side effects of NRT

Side effects can include skin irritation (patches), irritation of nose, throat or eyes (nasal spray), disturbed sleep, vivid dreams, upset stomach, dizziness or headaches.

### Which form of NRT?

For example:

- heavy smokers may use 24-hour patches
- nasal/mouth sprays are the fastest acting form of NRT
- some find it useful to combine NRT products.

NRT usually lasts 8–12 weeks before reduction of the dose and eventually stopping.

### Now try this

Quitting smoking and weight gain are often linked. What advice would you give to a client who shows concern over this?

## Reducing alcohol consumption

To cut down on alcohol successfully, easy-to-adopt steps can be put into practice.

### Aiming to drink less

- Break habits and do something different at the time of day when drinking occurs.
- Have at least two days a week without drinking.
- Pace drinking; sipping slowly and enjoying the taste.
- Space out drinks; have a soft drink/water in between.
- Have a smaller drink; a single instead of a double.
- Choose a drink with less alcohol.

### Reducing alcohol consumption at home



### Reducing drinking while out

- Meet somewhere that doesn't serve alcohol.
- Set a limit, or opt out of rounds.
- Budget: take out a fixed amount of money to spend on alcohol.
- Go out later.
- Sit down – we drink more slowly when sitting down compared to standing.

[Links](#) Go to page 47 to revise the effects of alcohol.

### Self-help groups

- Drinkline is the national alcohol helpline.
- Alcoholics Anonymous (AA) is a free self-help group. Its 12-step programme involves getting sober with the help of regular support groups.
- Al-Anon Family Groups offer support and understanding to the families/friends of problem drinkers.

### Counselling

Specially trained therapists may offer counselling to individuals/groups. Cognitive behavioural therapy (CBT) is one of the most effective forms.

- It tackles patterns of thinking / behaviour, to break certain emotional / psychological ties to habits.
- It addresses the underlying feelings and thought processes causing addiction.
- It helps find ways to address problems / insecurities, without turning to alcohol.

### Alternative treatments

Individuals trying to overcome alcohol problems may choose other treatments to boost chances for success.



There are mixed views on the effectiveness of alternative treatments.

### Now try this

Suggest two strategies / tips you would give a client who drinks more than the recommended units of alcohol per week.