BTEC Sport Year 11

Remote Learning Plan

W/C 7th Sept	Lesson 1	Complete Poster 1 - Short Term Effects of Musculoskeletal system
	Lesson 2	Hand in Poster 1 and start Poster 2 Short Term Effects of CV system

Lesson 1	Lesson 2
Create a poster with each of the effects below described (for a pass) or explained (for a merit) the short-term response of the body to exercise: 1. Increases production of synovial fluid 2. Increases range of joint mobility 3. Micro tears in muscle fibres 4. Encourages formation of new bone 5. Increased metabolic activity Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.	Create a poster with each of the effects below described (for a pass) or explained (for a merit) the short-term response of the body to exercise: 1.Increased Heart rate and blood 2.Increased breathing rate 3.Sweat production and skin reddening 4.Redistribution of blood flow 5.Lactic acid in the blood 6.Cardiac output 7.Blood pressure 8.Increased tidal volume Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.

W/C 14th Sept	Lesson 3	Complete and hand in poster 2 - Short term effects of CV system
	Lesson 4	Start Poster 3 Long Term effects of MS system

Lesson 3	Lesson 4
Finish your poster with each of the effects below described (for a pass) or explained (for a merit) the short-term response of the body to exercise: 1.Increased Heart rate and blood 2.Increased breathing rate 3.Sweat production and skin reddening 4.Redistribution of blood flow 5.Lactic acid in the blood 6.Cardiac output 7.Blood pressure 8.Increased tidal volume Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.	Create a poster with each of the effects below described (for a pass) or explained (for a merit) the long-term adaptations of the body to exercise: 1.Increase in bone density (bone strength) due to increase in calcium production 2.Decreased risk of osteoporosis 3.Stronger connective tissues (ligaments and tendons), so more resistant to injury 4.Increased thickness of hyaline cartilage 5.Increased stability of joints 6.Hypertrophy (increased muscle size) 7.Skeletal muscles adapt to using more oxygen, the muscles and their capillaries become more efficient and can therefore work for a longer period of time 8.Increased number of mitochondria 9.Improved posture. Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.

W/C 21st Sept	Lesson 5	Complete and hand in poster 3 Long Term effects of MS system
	Lesson 6	Start Poster 4 Long Term effects of CV system

Lesson 5	Lesson 6
Finish your poster with each of the effects below described (for a pass) or explained (for a merit) the long-term adaptations of the body to exercise: 1.Increase in bone density (bone strength) due to increase in calcium production 2.Decreased risk of osteoporosis 3.Stronger connective tissues (ligaments and tendons), so more resistant to injury 4.Increased thickness of hyaline cartilage 5.Increased stability of joints 6.Hypertrophy (increased muscle size) 7.Skeletal muscles adapt to using more oxygen, the muscles and their capillaries become more efficient and can therefore work for a longer period of time 8.Increased number of mitochondria 9.Improved posture. Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.	Create a poster with each of the effects below described (for a pass) or explained (for a merit) the long-term adaptations of the body to exercise: 1.decrease in resting heart rate 2. increase in heart size and strength (increase in stroke volume and the heart can pump more blood per beat) 3. decreased risk of hypertension (high blood pressure) 4. increased Vital Capacity (VC) 5. increased maximum oxygen uptake (VO2 max). 6. increased efficiency to deliver oxygen and remove waste products and gaseous exchange Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.

W/C 28th Sept	Lesson 7	Complete and hand in poster 4 LT CV system
	Lesson 8	Start Unit 5 LA A Distinction Task

Lesson 7	Lesson 8
Create a poster with each of the effects below described (for a pass) or explained (for a merit) the long-term adaptations of the body to exercise: 1.decrease in resting heart rate 2. increase in heart size and strength (increase in stroke volume and the heart can pump more blood per beat) 3. decreased risk of hypertension (high blood pressure) 4. increased Vital Capacity (VC) 5. increased maximum oxygen uptake (VO2 max). 6. increased efficiency to deliver oxygen and remove waste products and gaseous exchange Content: A paragraph which describes/explains in your own words. Pictures/diagrams to support your description/explanation.	Using three different sports activities, compare and contrast how the musculoskeletal and cardiorespiratory systems respond and adapt to exercise. You need to write up 3 responses or adaptations from each poster, comparing and contrasting 3 different sports examples for each one. For example: - Synovial fluid is a short-term response your body makes when it experiences exercise. The body increases the production of synovial fluid for the joint to be lubricated and nourished. This helps to prevent wear and tear during exercise to the tendons, ligaments and bones. For example, when a runner is running the 1500m synovial fluid is produced to prevent the bones from rubbing and grazing together. If there was no synovial fluid between the joints then the bone would start to wear away and may cause arthritis, which will mean that the runner will not be able to run anymore as it cannot be undone. Another sporting example is football. In football there is 90 mins worth of running, walking, jumping and changing of directions. Synovial fluid is used to keep the joints from rubbing together while the player is running in the knee joints. Also, when the player is twisting, turning while dribbling with the ball the hip joint is being used which synovial fluid is there to protect the ball and socket joint from rubbing on other bones to prevent injury, therefore compared to the 1500m runner synovial fluid is really important. The last sporting example is road cycling. Road cycling spend hours upon end cycling which puts a lot of pressure on the knee joints. This could lead to the bones to rub and cause damage. But synovial fluid is produced to prevent and protect the joints in the knees and other joints that are being used. However as cycling is non weight bearing the impact on the knee joint wouldn't be as great as the runner or the footballer.

W/C 5th Oct	Lesson 9	Complete and hand in LA A Distinction Task
	Lesson 10	Start Unit 5 LA B Pass/Merit Task

Lesson 9

Using three different sports activities, compare and contrast how the musculoskeletal and cardiorespiratory systems respond and adapt to exercise.

You need to write up 3 responses or adaptations from each poster, comparing and contrasting 3 different sports examples for each one.

For example: -
Synovial fluid is a short-term response your body makes when it experiences exercise. The body increases the production of synovial fluid for the joint to be lubricated and nourished. This helps to prevent wear and tear during exercise to the tendons, ligaments and bones. For example, when a runner is running the 1500m synovial fluid is produced to prevent the bones from rubbing and grazing together. If there was no synovial fluid between the joints then the bone would start to wear away and may cause arthritis, which will mean that the runner will not be able to run anymore as it cannot be undone. Another sporting example is football. In football there is 90 mins worth of running, walking, jumping and changing of directions. Synovial fluid is used to keep the joints from rubbing together while the player is running in the knee joints. Also, when the player is twisting, turning while dribbling with the ball the hip joint is being used which synovial fluid is there to protect the ball and socket joint from rubbing on other bones to prevent injury, therefore compared to the 1500m runner synovial fluid is really important. The last sporting example is road cycling. Road cycling spend hours upon end cycling which puts a lot of pressure on the knee joints. This could lead to the bones to rub and cause damage. But synovial fluid is produced to prevent and protect the joints in the knees and other joints that are being used. However as cycling is non weight bearing the impact on the knee joint wouldn't be as great as the runner or the footballer.

Lesson 10

Task 1 –
Create a poster describing the 3 energy systems and how stating how each of them provide energy for one sports performer.

- The ATP CP/Alactic acid energy system
- The Glycolysis/Lactic Acid System:
- The Aerobic System:

Task 2 –
Using two selected sports, explain how the body uses both the anaerobic and aerobic energy systems.

You should explain how each of the sports one, both or all of the energy systems depending on the activity chosen.

W/C 12th Oct	Lesson 11	Complete and hand in Pass/Merit Task
	Lesson 12	Start Unit 5 LA B Distinction Task

Lesson 11

Task 1 –
Create a poster describing the 3 energy systems and how stating how each of them provide energy for one sports performer.

- The ATP CP/Alactic acid energy system
- The Glycolysis/Lactic Acid System:
- The Aerobic System:

Task 2 –
Using two selected sports, explain how the body uses both the anaerobic and aerobic energy systems.

You should explain how each of the sports one, both or all of the energy systems depending on the activity chosen.

Lesson 12

Compare and contrast how the energy systems are used in sports with different demands.

You need to choose at least 3 different sporting examples which each have different demands e.g.

	Long Jump	800m	Triathlon	Rugby
ATP/CP	X			
Glycolysis		X		X
Aerobic			X	X

You then need to compare and contrast which energy systems are used by each sport/event.

W/C 12th Oct	Lesson 13	Complete and hand in LA B distinction Task
	Lesson 14	Ensure all of the above is completed and handed in

Lesson 13

Compare and contrast how the energy systems are used in sports with different demands.

You need to choose at least 3 different sporting examples which each have different demands e.g.

	Long Jump	800m	Triathlon	Rugby
ATP/CP	X			
Glycolysis		X		X
Aerobic			X	X

You then need to compare and contrast which energy systems are used by each sport/event.

Lesson 14

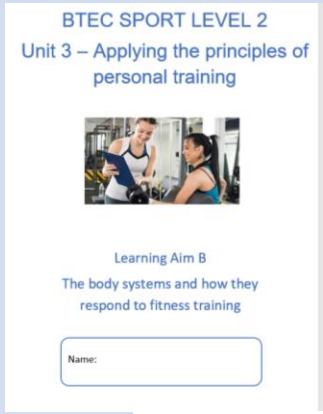
During this lesson it will expected that all previous 13 lessons work is fully completed and handed in.

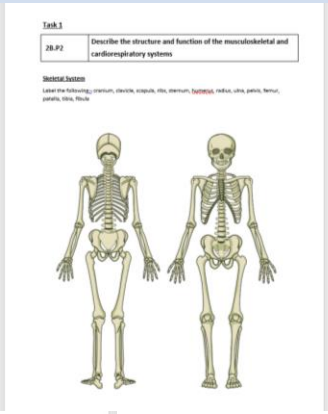
W/C 2nd Nov

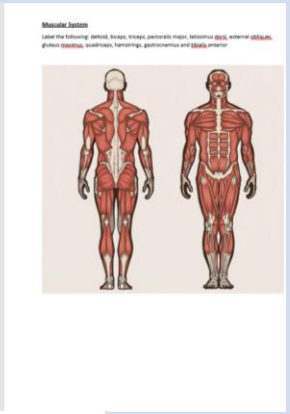
Lesson 15	Unit 3 LA B Booklet Task 1/2
Lesson 16	Unit 3 LA B Booklet Task 3

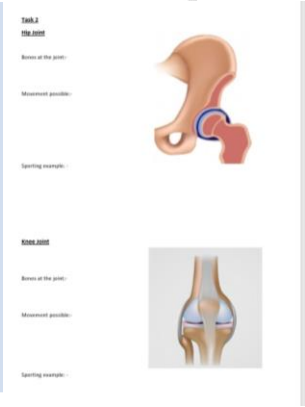
Lesson 15

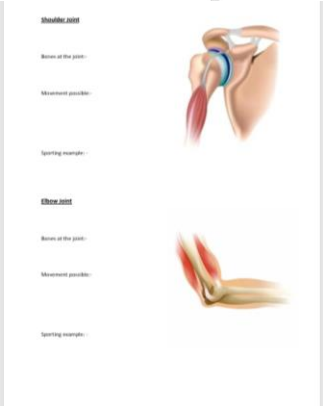
In the booklet you can see below you need to ensure that Task 1 and 2 are fully completed.





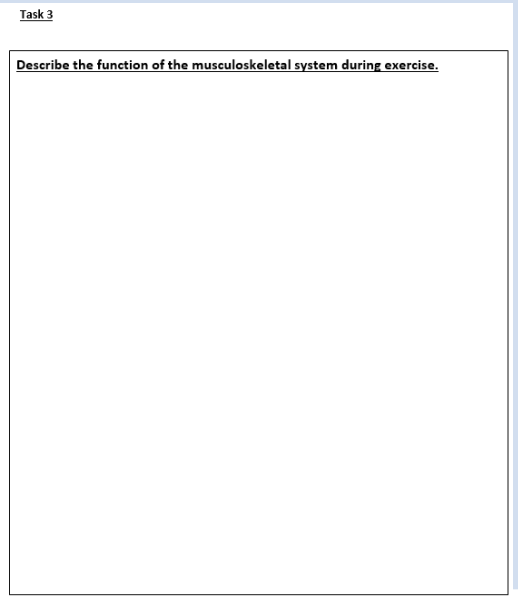






Lesson 16

Complete Task 3
Possible sentence starters :-
1. The Muscular Skeletal system includes….
2. The skeletal system includes….. and performs many roles, 3 of those roles are…..give an example for each
3. The muscular and skeletal systems work together by….
4. Antagonistic pairs allow movement by……example…..



W/C 2nd Nov

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Lesson 16	Unit 3 LA B Booklet Task 3

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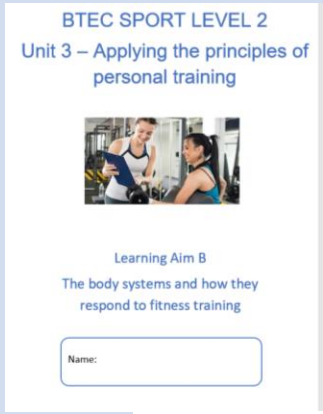

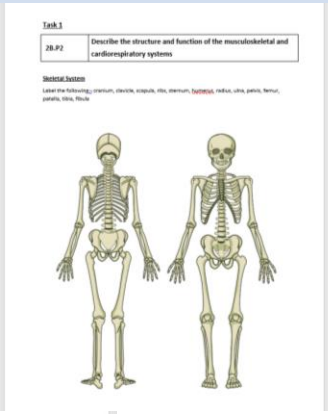

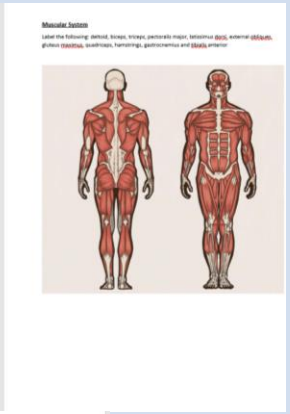

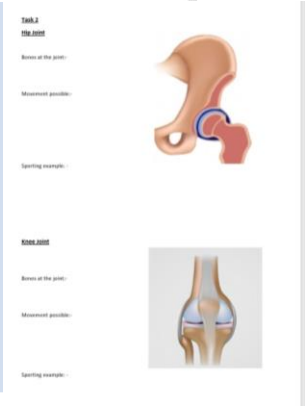

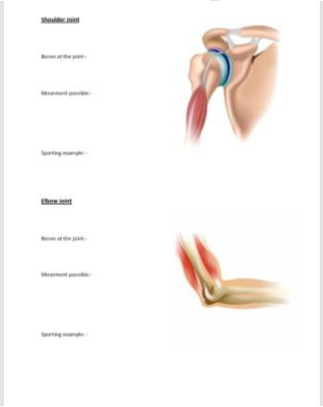

Lesson 16

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Possible sentence starters :-
1. The Muscular Skeletal system includes….
2. The skeletal system includes….. and performs many roles, 3 of those roles are…..give an example for each
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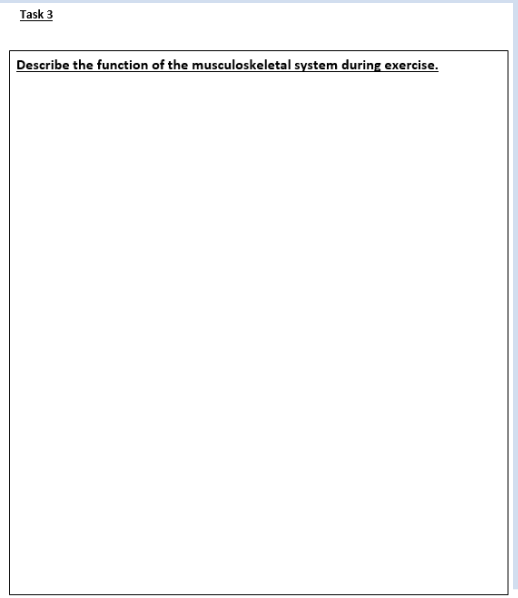
4. Antagonistic pairs allow movement by……example…..



W/C 9th Nov

Lesson 17	Unit 3 LA B Booklet Task 4 and 5
Lesson 18	Unit 3 LA B Booklet hand in

Lesson 17

In the booklet you need to complete task 4 and 5.

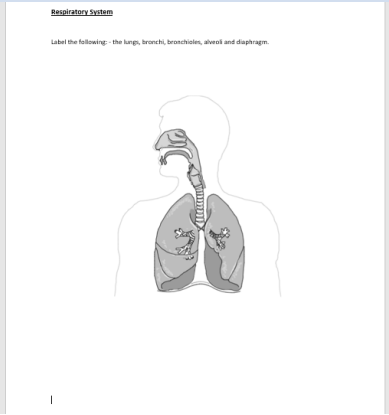
Task 5 Questions to consider in your answer.

What is the definition of aerobic endurance?
What makes up the cardiorespiratory system?
What does the Cardiac system do?
What does the Respiratory system do?
How do they systems work together to allow someone to exercise?

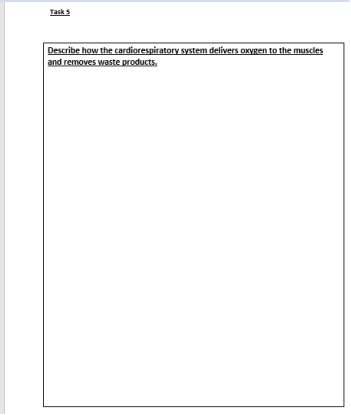

Task 4

Cardiovascular System

Label the following:- the atria, ventricles, aorta, vena cava, pulmonary artery, pulmonary vein


Respiratory System

Label the following:- the lungs, bronchi, bronchioles, alveoli and diaphragm.


Task 5

Describe how the cardiorespiratory system delivers oxygen to the muscles and removes waste products.

Lesson 18

Hand in your booklet ensuring that all tasks are fully completed.
Task 3 and 5 both need explanations to ensure you reach the Merit criteria.

W/C 16th Nov

Lesson 19	Unit 3 Booklet Page 1-2
Lesson 20	Unit 3 Booklet Page 1-2 and Goals

Lesson 21

Complete page 1 of the Unit 3 booklet.

Overview of current levels of activity
What activity are you currently doing at the moment?
What duration? How many times a week? Intensity?

Strengths and weaknesses - What are your strengths and weaknesses in regards to your sport?
E.g. Passing/Shooting/Dribbling/Lineouts etc
Strengths and weaknesses of skill related components of fitness –
E.g. Balance, Coordination, Reaction Time, Agility, Power

Aim –
Either Aerobic Endurance or Muscular Endurance.
My aim is to improve my…… because this will help me in …….. When I……..

Objectives – Aerobic Endurance **or** Muscular Endurance
Why have you chosen that component?
What benefit will this have to your sport/ health
What training method is going to develop this?
Aerobic Endurance – Continuous, Aerobic interval training, Fartlek training
Muscular Endurance – Circuit, Weight training.

Lesson 22

Complete Unit 3 Page 1 – 3

Attitude and motivation - How do you know you are going to be able to stick at it? Is it because you enjoy the activity you are doing it for?
Your current motivation and attitude to training – This needs to be positive
How this can be maintained/improved through the fitness training programme. E.g. Variation, fun, interesting, relevant sessions.

Complete Physical Activity Readiness Questionnaire PAR-Q thoroughly
Complete Lifestyle Questionnaire thoroughly

Assessing my personal information (Use info from PAR-Q and Lifestyle Questionnaire)
You need to assess how ready you are to take part in a 6-week physical activity programme
Explain how your level of fitness, health and general lifestyle will allow you to take part in physical activity
Discuss how you are aiming to improve over 6 weeks and the intended benefits on your fitness, health and lifestyle (e.g. how will it make you feel, your motivation, impact on your sports performance)

Goals
Specific – Links to you area of fitness and your sport
Measurable – Time/Miles/Test score
Achievable – Can it be done by you?
Realistic – Is it possible?
Time bound – When is the end point?
Exciting – is your training fun?
Recorded – Is it written down?

W/C 23rd Nov

Lesson 21	Unit 3 Booklet Page 3 Goals
Lesson 22	Unit 3 Booklet Training Method

Lesson 21

Goals

Specific – Links to you area of fitness and your sport
Measurable – Time/Miles/Test score
Achievable – Can it be done by you?
Realistic – Is it possible?
Time bound – When is the end point?
Exciting – is your training fun?
Recorded – Is it written down?

short-term goals (set over a short period of time, between one day and one month)

medium-term goals (should give progressive support towards achievement of long-term goals)

long-term goals (what they want to achieve in the long term, and the best way of doing this).

Lesson 22

On the training method page in the booklet

1) What training method are you using? Continuous if aerobic endurance or Circuit if muscular endurance
2) Describe the training method?
   E.g. Continuous training is……./Circuit training is…….
3) What do you intend to do?
   What activities did you include in your plan – running/biking/circuit activities.
   Name a couple of the stations you have chosen and say why you have picked these.
4) Advantages/Disadvantages of it? Name 2 Advantages and 2 Disadvantages for the method.
5) Map of course/plan of circuit (which exercises)
   What is your starting route/what is your starting circuit?
   How long are you going run for?/How long is each station e.g 60 seconds, How long are you going to work/rest?

W/C 30th Nov	Lesson 23	Unit 3 Booklet Training Method
	Lesson 24	Unit 3 Booklet Warm Up and Cool Down

Lesson 23	Lesson 24
On the training method page in the booklet 1) What training method are you using? Continuous if aerobic endurance or Circuit if muscular endurance 2) Describe the training method? E.g. Continuous training is……./Circuit training is……. 3) What do you intend to do? What activities did you include in your plan – running/biking/circuit activities. Name a couple of the stations you have chosen and say why you have picked these. 4) Advantages/Disadvantages of it? Name 2 Advantages and 2 Disadvantages for the method. 5) Map of course/plan of circuit (which exercises) What is your starting route/what is your starting circuit? How long are you going run for?/How long is each station e.g 60 seconds, How long are you going to work/rest?	**Warm Up** Why do you need to do one? Explain - light, continuous physical activity to prepare the body for exercise Design a warm up Pulse Raiser Stretches Joint Mobilisation **Cool Down** Why do you need to do one? Explain - light, continuous physical activity to reduce heart rate, remove lactic acid and prevent blood pooling Design a cool down Pulse Lowering Developmental Stretches

W/C 7th Dec	Lesson 25	Unit 3 Booklet Warm Up and Cool Down
	Lesson 26	Unit 3 Booklet FITT and SPIRRAV

Lesson 25

Continue with your warm up and cool down plans

Warm Up

Why do you need to do one?

Explain - light, continuous physical activity to prepare the body for exercise

Design a warm up

- Pulse Raiser
- Stretches
- Joint Mobilisation

Cool Down

Why do you need to do one?

Explain - light, continuous physical activity to reduce heart rate, remove lactic acid and prevent blood pooling

Design a cool down

- Pulse Lowering
- Developmental Stretches

Lesson 26

How have you applied FITT

Frequency – How often are you training? Why do you need to increase? Why do you have rest days?

Intensity – How hard are you planning to train?

target zones and training thresholds (calculating and applying maximum heart rate

(HR max) to training):

o HR max = 220 – age (years)

o 60–85% HR max is the recommended training zone for cardiovascular health and fitness

o Borg Rating of Perceived Exertion (RPE) Scale (1970) (6–20) can be used as a measure of exercise intensity

o the relationship between RPE and heart rate where RPE × 10 = HR (bpm).

Time – How long are you training for? How does this change over the 6 weeks?

Type – What time of training are you using? Why? Are you changing it at all? Why?

What are and how are you applying of the additional principles of training.

- Specificity – How does it link to your sport?
- Progressive Overload – How are going to make your training harder?
- Individual Needs – How does it link to your level of fitness?
- Rest and Recovery – How will you ensure you have time to rest and recovery? Why do you need to?
- Reversibility – How will you ensure this doesn't happen?
- Adaptation – What are you trying to achieve?
- Variation – How will you use this?

W/C 14th Dec

Lesson 27	Unit 3 Booklet FITT and SPIRRAV
Lesson 28	Unit 3 Booklet Training Plan

Lesson 27

How have you applied FITT

Frequency – How often are you training? Why do you need to increase? Why do you have rest days?
Intensity – How hard are you planning to train?
target zones and training thresholds (calculating and applying maximum heart rate
(HR max) to training):
o HR max = 220 – age (years)
o 60–85% HR max is the recommended training zone for cardiovascular health and fitness
o Borg Rating of Perceived Exertion (RPE) Scale (1970) (6–20) can be used as a measure of exercise intensity
o the relationship between RPE and heart rate where RPE × 10 = HR (bpm).
Time – How long are you training for? How does this change over the 6 weeks?
Type – What time of training are you using? Why? Are you changing it at all? Why?

What are and how are you applying of the additional principles of training.
Specificity – How does it link to your sport?
Progressive Overload – How are going to make your training harder?
Individual Needs – How does it link to your level of fitness?
Rest and Recovery – How will you ensure you have time to rest and recovery? Why do you need to?
Reversibility – How will you ensure this doesn't happen?
Adaptation – What are you trying to achieve?
Variation – How will you use this?

Lesson 28

Training Plan

You need to design your training plan, considering what you have just mentioned about FITT.
Your training plan should show progressive overload.
What variation have you got in your programme?

Aerobic Endurance

Training Methods

Muscular Endurance

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	Rest Rest	Jog – 20 mins Circuit x 1 lap	Football training - 1 hour Netball training – 1 hour	Jog – 20 mins Circuit x 1 lap	Rest Rest	Rest Rest	Football Match – 80 mins Netball Match – 50 mins
2	Rest Rest	Jog – 22 mins Circuit x 1 lap	Football training - 1 hour Netball training – 1 hour	Jog – 22 mins Circuit x 1 lap	Rest Rest	Rest Rest	Football Match – 80 mins Netball Match – 50 mins
3	Rest Rest	Jog – 25 mins Circuit x 2 laps	Football training - 1 hour Netball training – 1 hour	Cycle – 25 mins Circuit x 2 laps	Jog – 25 mins Weight training for endurance	Rest Rest	Football Match – 80 mins Netball Match – 50 mins
4	Rest Rest	Jog – 30 mins Circuit x 2 laps	Football training - 1 hour Netball training – 1 hour	Cycle – 30 mins Circuit x 2 laps	Cycle – 35 mins Weight training for endurance	Rest Rest	Football Match – 80 mins Netball Match – 50 mins
5	Rest Rest	Jog – 35 mins Circuit x 3 laps	Football training - 1 hour Netball training – 1 hour	Jog – 40 mins Circuit x 3 laps	Jog – 40 mins Weight training for endurance	Rest Rest	Football Match – 80 mins Netball Match – 50 mins
6	Rest Rest	Jog – 45 mins Circuit x 3 laps	Football training - 1 hour Netball training – 1 hour	Cycle – 50 mins Circuit x 3 laps	Jog – 50 mins Weight training for endurance	Rest Rest	Football Match – 80 mins Netball Match – 50 mins