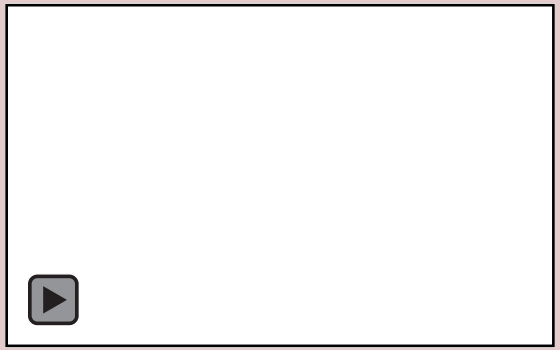
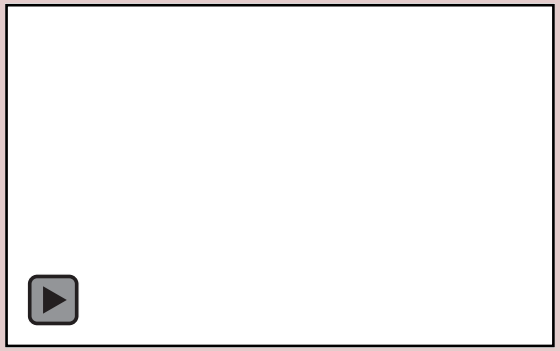
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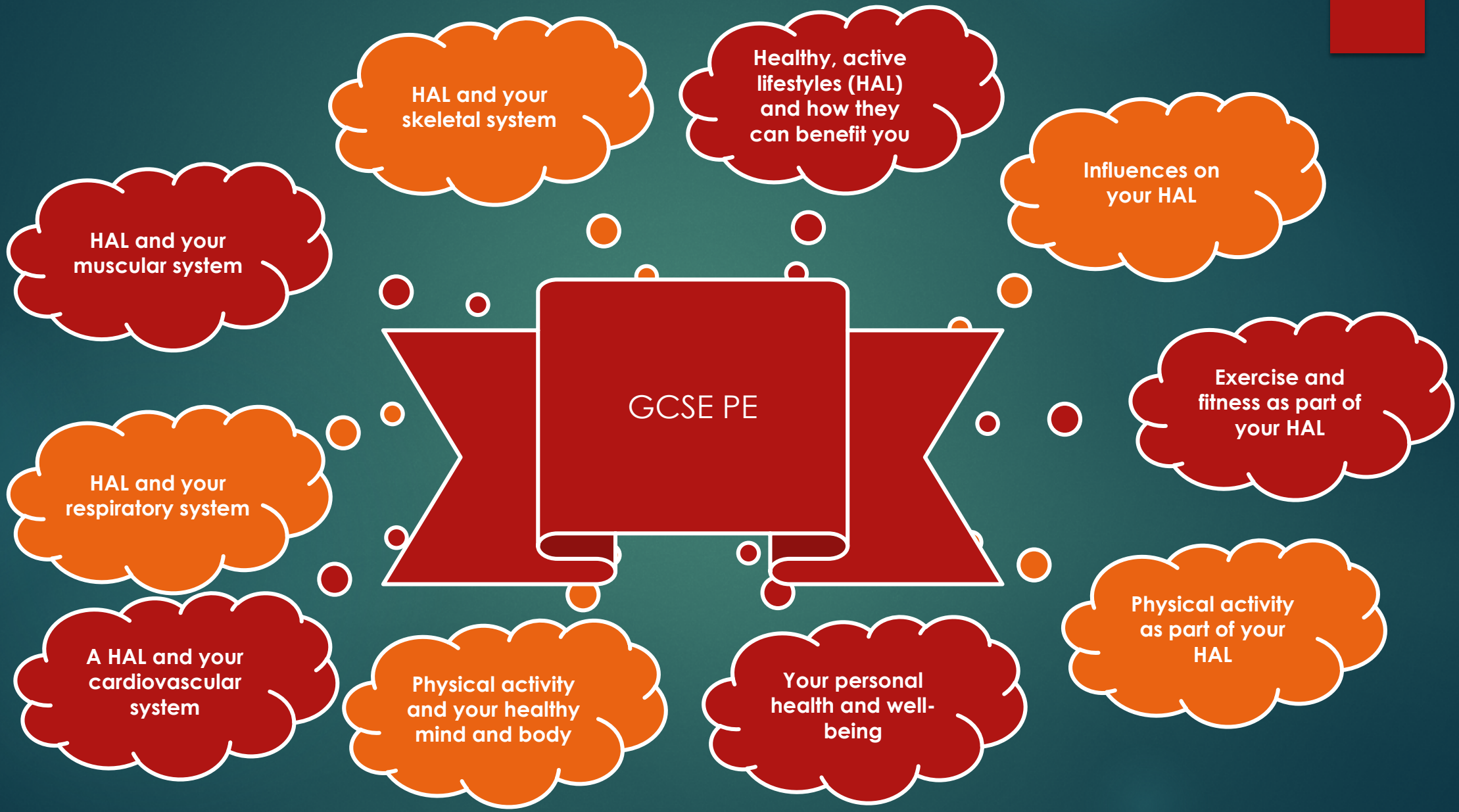
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Introduction Video	How to use the Interactive Revision PowerPoint
	

Click videos for instructions

Click a Topic to start



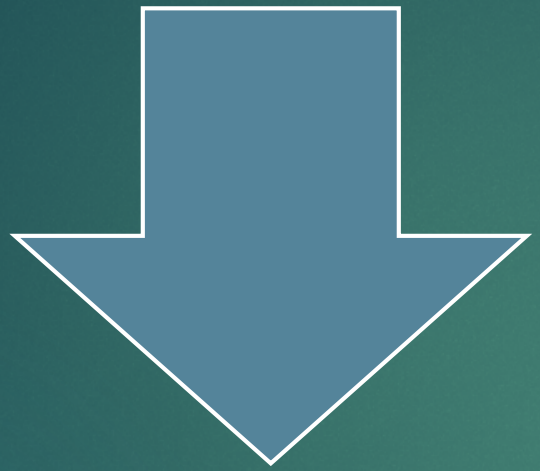
GO TO ALL TOPICS

Topic 1.1.1: Healthy, active lifestyles (HAL) and how they can benefit you

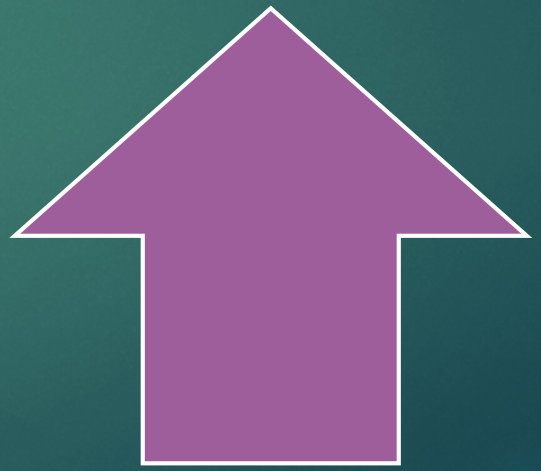
Topic	Key Concepts	1-2 Mark Questions	Mark Questions Answers	6 Mark Questions- Healthy, active lifestyles (HAL) and how they can benefit you	6 Mark Questions Answers
Explain what makes up a HAL					
Classify the benefits of a HAL into 3 categories (mental, social & physical).					
Describe the 6 main benefits of physical activity.					
Explain the why people take part in sport (5 main ones).					

Explain what makes up a HAL

Healthy Active Lifestyle is a lifestyle that contributes positively to physical, mental and social well-being and includes regular exercise and physical activity.







Benefits of fall into three main categories

- Physical improving health and fitness
- Mental / psychological reducing stress and relieving related problems
- Social making and developing friendships and building teamwork skills

GO BACK TO TOPICS

Classify the benefits of a HAL into 3 categories (mental, social & physical).

A healthy active lifestyle has a positive effect on physical and mental well being.

People who exercise regularly and have an active social life with a network of friends tend to cope better with the stresses of daily life.

Physical	Social	Mental (Psychological)
Contribute to a good physical health	Mix with others	Relieve and/ or prevent stress and tension
Physical Challenge (can I do it)	Make new friends	Mental challenge (can I do it)
Increase fitness	Meet current friends	Increase self-esteem and confidence
Improve performance	Develop teamwork	Help the individual feel good
Improve any of the health related factors	Develop cooperation	Contribute to enjoyment of life.

GO BACK TO TOPICS

Describe the 6 main benefits of physical activity.

Exercise and physical activity help to improve the following:

- Cardiovascular fitness
- Increase strength
- Improve body composition
- Flexibility
- Tone muscle

- Increase fitness
- Helps individuals feel good
- Helps relieve stress
- Increase self esteem and confidence
- Contribute to good health
- Contribute to enjoyment of life
- Provide a mental challenge

GO BACK TO TOPICS

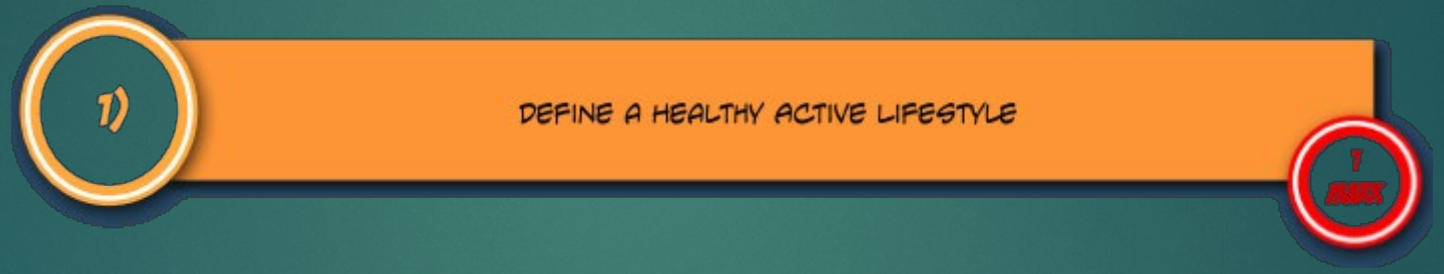
Explain the why people take part in sport (5 main ones).

- People take part in Physical activity for the following reason/benefits



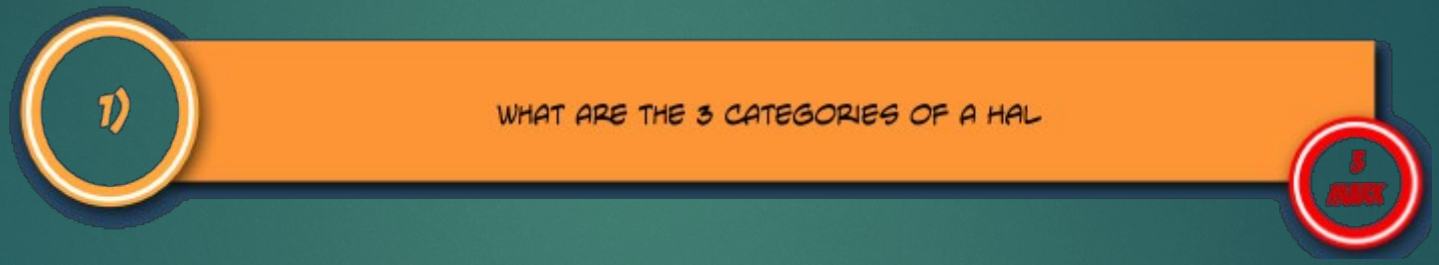
GO BACK TO TOPICS

Explain what makes up a HAL





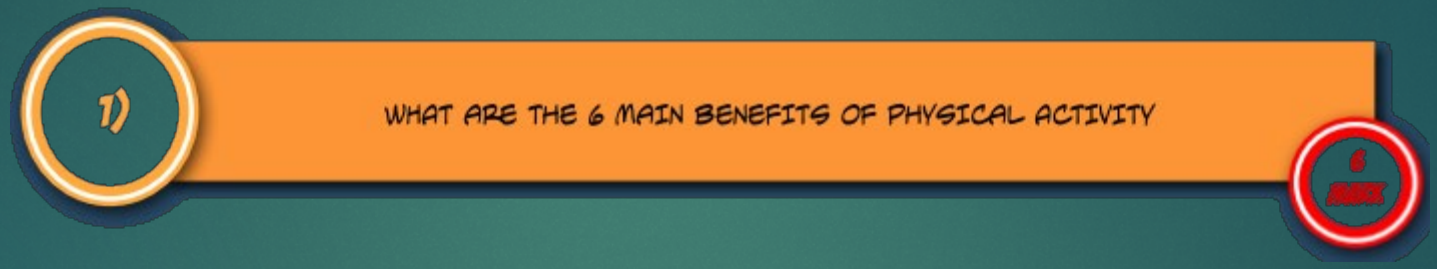
Classify the benefits of a HAL into 3 categories (mental, social & physical).



SHOW ME THE ANSWERS

GO BACK TO TOPICS

Describe the 6 main benefits of physical activity.



Show Me The Answers

Go Back To Topics



Explain the why people take part in sport (5 main ones).

1)

NAME 3 REASONS WHY PEOPLE TAKE PART IN SPORT

3 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain what makes up a HAL

1) HEALTHY ACTIVE LIFESTYLE IS A LIFESTYLE THAT CONTRIBUTES POSITIVELY TO PHYSICAL, MENTAL AND SOCIAL WELL-BEING AND INCLUDES REGULAR EXERCISE AND PHYSICAL ACTIVITY.

1 MARK

GO BACK TO TOPICS



Classify the benefits of a HAL into 3 categories (mental, social & physical).

1)

PHYSICAL
MENTAL
SOCIAL WELL-BEING

GO BACK TO TOPICS



Describe the 6 main benefits of physical activity.

1)

THE 6 MAIN BENEFITS OF PHYSICAL ACTIVITY.

- INCREASE FITNESS
- HELPS INDIVIDUALS FEEL GOOD
- HELPS RELIEVE STRESS
- INCREASE SELF ESTEEM AND CONFIDENCE
- CONTRIBUTE TO GOOD HEALTH
- CONTRIBUTE TO ENJOYMENT OF LIFE
- PROVIDE A MENTAL CHALLENGE





Explain the why people take part in sport (5 main ones).

1)

People take part in Physical activity for the following reason/benefits (any of the following)

Co-operation
Competition
Physical Challenge
Aesthetic Appreciation
The development of friendships/social mixing

5 MARK



Questions

Explain what makes up a HAL

Physical activity can stimulate an individual. These stimulants are Cooperation, Competition, Physical Challenge, Aesthetic Appreciation and the development of friendships and social mixing.

Describe 4 of these factors (4)

Show me the answers

Go back to topics

Questions

Classify the benefits of a HAL into 3 categories (mental, social & physical).

A person may become involved in physical activity in order to improve their social well-being.

Describe social benefits of exercise they might experience by becoming involved in physical activity. (4)

Show Me The Answers

Go Back To Topics

Questions

Describe the 6 main benefits of physical activity.

An individual may want to increase the amount of exercise they take part in to improve their physical fitness.

State and explain factors which would be a result of improvement in physical fitness (6)

Show me the answers

Go back to topics

Questions

Explain the why people take part in sport (5 main ones).

Explain differences between reasons for participation in physical activity for a young, talented games player and a retired person (4)

Show me the answers

Go back to topics

6 MARK ANSWERS

Explain what makes up a HAL

Physical activity can stimulate an individual. These stimulants are Cooperation, Competition, Physical Challenge, Aesthetic Appreciation and the development of friendships and social mixing.
Describe 4 of these factors (4)

COOPERATION – opportunity to get involved with others to achieve something together, working towards common goals

COMPETITION – as a player improves the level of competition rises, a person may seek harder competition regularly

PHYSICAL CHALLENGE – seeing problems through individually or as a member of a team, reaching a set goal or target

AESTHETIC APPRECIATION – recognising the beauty of a performance and attempting to replicate it

DEVELOPMENT OF FRIENDSHIPS AND SOCIAL MIXING – attending social events, meeting new people, becoming more outgoing

GO BACK TO TOPICS

6 MARK ANSWERS

Classify the benefits of a HAL into 3 categories (mental, social & physical).

A person may become involved in physical activity in order to improve their social well-being.

Describe social benefits of exercise they might experience by becoming involved in physical activity. (4)

DEVELOPMENT OF TEAMWORK - Needing To Cooperate And Work With Others Towards A Goal

FULFILMENT BY BEING PART OF A TEAM – May Fulfil A Part Of Their Life That Is Currently Unfulfilled

CHALLENGE AS YOU OVERCOME OPPOSITION – Having a common target with others may motivate

INCREASE OF SELF-WORTH – Gaining respect from others

CHANCE TO MEET NEW PEOPLE – Increase social group

MIX WITH PEOPLE – Having Common Interests To Others, Sustaining Friendships More Easily

GO BACK TO TOPICS

6 MARK ANSWERS

Describe the 6 main benefits of physical activity.

An individual may want to increase the amount of exercise they take part in to improve their physical fitness.

State and explain factors which would be a result of improvement in physical fitness (6)

Any physical, mental or social factor with relevant reasoning

e.g. improvement in body image may make an individual more likely to continue physical exercise to continue their improvement as they are happy with how they look

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the why people take part in sport (5 main ones).

Explain differences between reasons for participation in physical activity for a young, talented games player and a retired person (4)

YOUNG PERSON – PERSONAL DEVELOPMENT, MAKE NEW FRIENDS
RETIRED PERSON – TO INCREASE LIFE EXPECTANCY, LIFE'S PROBLEMS CAN BE FORGOTTEN

ANY ANSWER CAN BE ACCEPTED FOR EITHER BUT MUST HAVE REASONING TO IT

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.1.2: Influences on your HAL

Topic	Key Concepts	1-2 Mark Questions	Mark Questions Answers	6 Mark Questions – on Influences on your HAL	6 Mark Questions Answers
Identify the key influences that impact participation (6 main categories)					
Explain the different opportunities for getting involved in sport.					
Explain the sports participation pyramid (including the foundation, participation, performance and elite stages).					
Identify agencies involved in getting people involved in physical activity and sport.					



Identify the key influences that impact participation (6 main categories)

- People: family, peers, role models
- Image: fashion, media coverage
- Cultural factor: age, disability, gender, race
- Resources: availability, location, access, time
- Health and wellbeing: illness and health problems
- Socio-economic: cost, status

GO BACK TO TOPICS

Explain the different opportunities for getting involved in sport.

Most activities offer opportunities to participate in a variety of roles, including teaching or coaching, officiating, and volunteering.
Training opportunities are available through most sports' governing bodies.

Initiatives to keep people involved

It is important to know about the latest policies on PE and school sport. Initiatives change over time so check their official websites for the most up to date information.

- Government initiatives
- PE school sport and club links (PESSCL)
- School Sport Partnership
- The organisation Sport England
- The youth Sport Trust Top link
- Active Kids programme

Click on the initiative for more information

GO BACK TO TOPICS

Government initiatives

Recently the government introduced a policy to 'ensure all pupils receive their entitlement to two hours of high quality Physical Education per week.

This will encourage more participation and improve students' fitness

PE school sport and club links (PESSCL)

The government set up the PE school sport and club links (PESSCL) strategy to increase the take up of sporting opportunities by 5-16 year olds.

- Sport England and the youth sport trust manage two important areas in the Club Links and step into sport programmes.
  These provide opportunities for young people to take part in sport as performers, leaders official and as young volunteers

- The PESSCL programme aims to strengthen links between schools and local sports clubs.

School Sport Partnership

School sports partnerships are based around a group of schools with a sports college at the centre, or hub.

The aim of the scheme is to develop sporting opportunities in a wide range of sports and offer high quality coaching and competitions within the local community.

GO BACK TO TOPICS

The organisation Sport England

This organisation believe sport has the power to change people's lives. Sport England is committed to creating opportunities for people to start, stay and succeed in sport.

Start: increase participation in sport in order to improve the health of the nation, with a focus on priority groups

Stay: retain people in sport through an effective network of clubs, sports facilities, coaches, volunteers and competitive opportunities.

Succeed: create opportunities for Talented performance to achieve success

The youth Sport Trust Top link

top programs are designed to encourage people of all abilities to get involved in Sport. Top link is aimed at encouraging students in the 14-16 age category to organise and manage sports activities and dance festivals.

Students are taking physical education GCSE or taking a wart in, for example sports leadership are offered the opportunity to put their skills to good use. Experience as a leader or official may even count towards their GCSE.

Active Kids programme

Various supermarkets and other Enterprises run a volunteer programs in which vouchers collected by parents can be used by schools to buy a sporting and other equipment.

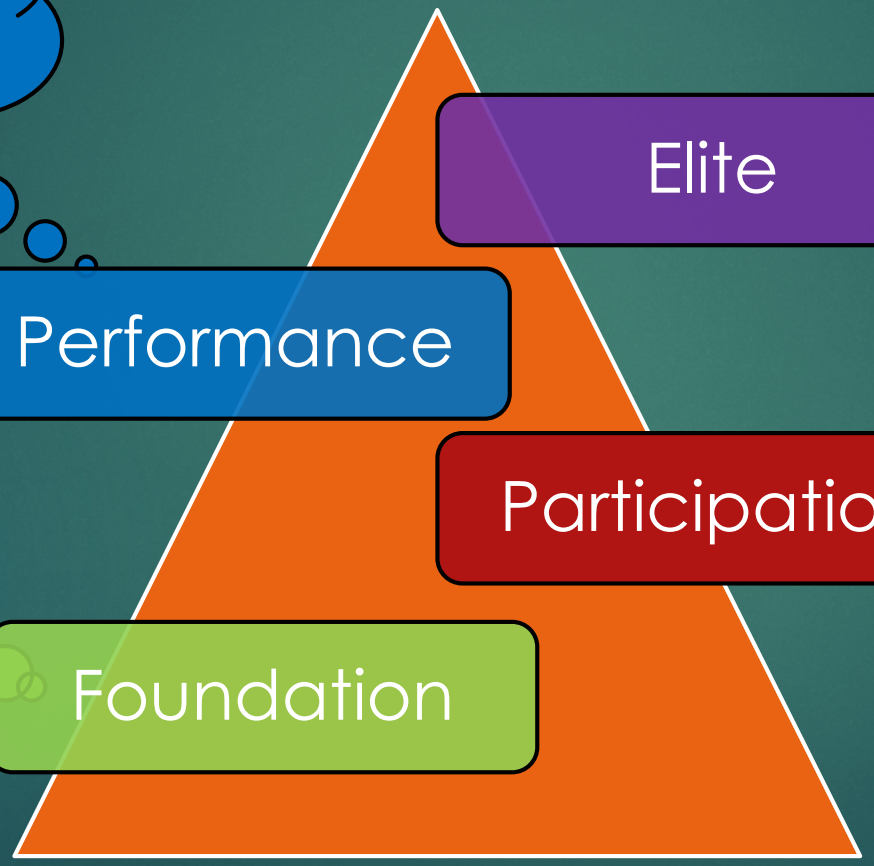
One example of this is the active kids program

GO BACK TO TOPICS

Explain the sports participation pyramid (including the foundation, participation, performance and elite stages).

Performance: during this stage young people begin to concentrate on sport specific skills and to develop talent in specific Sports

Elite/Excellent this page is the peak of the pyramid where individual are reaching sporting excellence



Foundation: this is the base of the pyramid at this stage most participants are likely to be learning /experimenting basic sporting skills.

The type of activity which contribute to the stage include primary PE lessons, top play activities, multi sports sessions.

Participation: this is the stage when young people begin to participate regularly in specific activity for enjoyment

GO BACK TO TOPICS

Identify agencies involved in getting people involved in physical activity and sport.

Click picture to enlarge

OPPORTUNITIES FOR GETTING INVOLVED IN SPORT

1. GOVERNMENT INITIATIVES

The government set a policy to "ensure all pupils receive two hours of good quality Physical Education (PE) lessons per week". This will encourage people to take part and increase pupils fitness.



2. PE SCHOOL SPORT & CLUB LINKS (PESSCL)

The government set up PESSCL to increase sport opportunities for 5-16 year olds.
The PESSCL program aims to strengthen links between schools and local clubs.

3. SCHOOL SPORT PARTNERSHIPS

School sports partnerships involve a group of schools with a sports college at the centre. It aims to develop a wide range of sports by offering high quality coaching and competitions within the local community.

4. SPORT ENGLAND

This organization believes sport can change peoples lives. Sport England developed the ***Start, Stay, Succeed*** plan.

START: increase participation in sport in order to improve health of the nation.

STAY: keep people in sport through effective clubs, facilities, coaches and competition opportunities.

5. THE YOUTH SPORT TRUST TOP LINK

TOP programs are designed to encourage people of all abilities to get involved in sport. Aimed at 14-16 year olds who organize and manage sports activities, dance festivals in local primary schools. Students who do GCSE PE are offered to do this leadership role.

6. ACTIVE KIDS PROGRAMME



Supermarkets and enterprises offer voucher programs. Vouchers are collected by parents who shop at the store, and give the vouchers to the school to buy sports equipment.

GO BACK TO TOPICS



Identify the key influences that impact participation (6 main categories)

1) NAME AND DEFINE 3 KEY INFLUENCES THAT IMPACT PARTICIPATION IN SPORT

5 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the different opportunities for getting involved in sport.

1) NAME 2 INITIATIVES TO KEEP/GET PEOPLE INVOLVED IN SPORT

2 MARK

SHOW ME THE ANSWERS

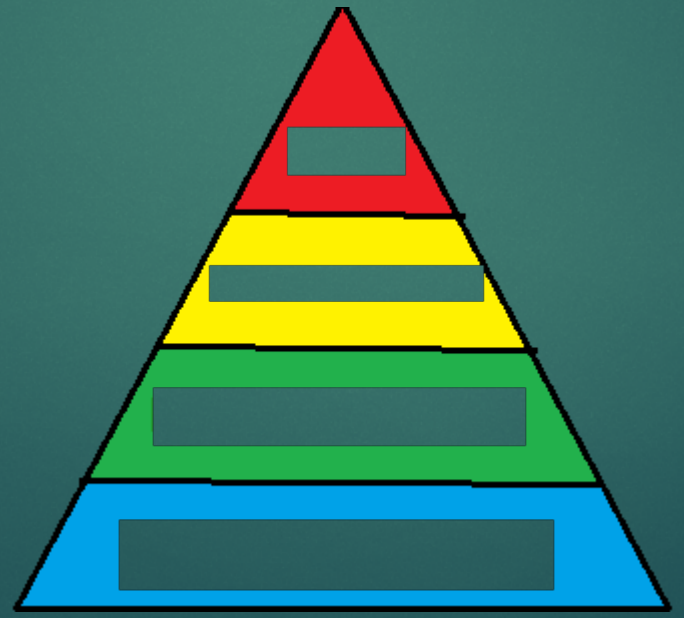
GO BACK TO TOPICS

Explain the sports participation pyramid (including the foundation, participation, performance and elite stages).

1)

FILL IN THE BELOW PYRAMID

1 MARK



SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify agencies involved in getting people involved in physical activity and sport.

1) IDENTIFY 3 AGENCIES/ORGANISATION INVOLVED IN KEEPING/GET PEOPLE INVOLVED IN SPORT

3 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify the key influences that impact participation (6 main categories)

1)

NAME AND DEFINE 3 KEY INFLUENCES THAT IMPACT PARTICIPATION IN SPORT

(any of the following)

People: family, peers, role models

Image: fashion, media coverage

Cultural factor: age, disability, gender, race

Resources: availability, location, access, time

Health and wellbeing: illness and health problems

Socio-economic: cost, status



Explain the different opportunities for getting involved in sport.

1)

NAME AND DEFINE 3 KEY INFLUENCES THAT IMPACT PARTICIPATION IN SPORT

(any of the following)

Government initiatives

PE school sport and club links (PESSCL)

School Sport Partnership

The organisation Sport England

The youth Sport Trust Top link

Active Kids programme

2 MARK

GO BACK TO TOPICS



Explain the sports participation pyramid (including the foundation, participation, performance and elite stages).





Time for Answers

Identify agencies involved in getting people involved in physical activity and sport.

1)

NAME AND DEFINE 3 KEY INFLUENCES THAT IMPACT PARTICIPATION IN SPORT

(any of the following)

Government initiatives

PE school sport and club links (PESSCL)

School Sport Partnership

The organisation Sport England

The youth Sport Trust Top link

Active Kids programme

2 MARK

GO BACK TO TOPICS

Questions

Identify the key influences that impact participation (6 main categories)

What difficulties may a disabled person encounter when participating in sport (5)

Show me the answers

Go back to topics

Questions

Explain the different opportunities for getting involved in sport.

Influential people can have an impact on the level and type of participation a person is involved in. Describe and explain the different ways that people can influence participation (6)

Show me the answers

Go back to topics

Questions

Identify agencies involved in getting people involved in physical activity and sport.

There are different ways in which private sports clubs can encourage more people to be involved in physical activity, state some of these below(4)

Show me the answers

Go back to topics

Questions

Identify agencies involved in getting people involved in physical activity and sport.

How does Sport England cater for top class facilities, but also ensure a healthy, active lifestyle for the public? (3)

Show me the answers

Go back to topics

6 MARK ANSWERS

Identify the key influences that impact participation (6 main categories)

What difficulties may a disabled person encounter when participating in sport (5)

Social prejudice, lack of available facilities, reduction in number of sports available, poor access into buildings, apparent lack of equality, difficulties with transport to venues etc..

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the different opportunities for getting involved in sport.

Influential people can have an impact on the level and type of participation a person is involved in. Describe and explain the different ways that people can influence participation (6)

3 answers plus a reason will gain 6 marks

e.g. a role model may influence a person as the individual may strive to become like their idol, they would try to copy their performances and therefore work harder to achieve success

GO BACK TO TOPICS

6 MARK ANSWERS

Identify agencies involved in getting people involved in physical activity and sport.

There are different ways in which private sports clubs can encourage more people to be involved in physical activity, state some of these below(4)

Holding open days, school visits, organizing trips to events, advertising

GO BACK TO TOPICS

6 MARK ANSWERS

Identify agencies involved in getting people involved in physical activity and sport.

How does Sport England cater for top class facilities, but also ensure a healthy, active lifestyle for the public? (3)

Support local authorities in planning of facilities; give advice on what facilities are needed; create a network of clubs, volunteers, coaches; fund talented performers

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.1.3: Exercise and fitness as part of your HAL

Topic	Key Concepts	1-2 Mark Questions	Mark Questions Answers	6 Mark Questions – on Exercise and fitness as part of your HAL	6 Mark Questions Answers
Explain the terms health, fitness and exercise.					
Know the 5 Health-related components of fitness.					
Define each health-related component of fitness and explain why it is important for different activities.					
Know the 6 Skill-related components of fitness.					



Explain the terms health, fitness and exercise.

Health: a state of complete mental, physical, and social well-being and not merely the absence of disease and infirmity

Exercise: performance physical activity which maintains or improves health and/or fitness

Fitness: the ability to meet the demands of the environment

Performance: how well a task is completed

GO BACK TO TOPICS



Know the 5 Health-related components of fitness.

- Cardiovascular fitness
- Muscular strength
- Muscular endurance
- Flexibility
- Body composition

GO BACK TO TOPICS

key concepts

Define each health-related component of fitness and explain why it is important for different activities.

Health related exercise component	Definition	Why it is important within Sport
Cardiovascular Fitness	The ability to exercise the entire body for long periods of time	This is a fitness that is required to allow sports men and women to play a long hard matches in a range of sports. A high level of cardiovascular fitness is essential for all athletes
Muscular Strength	The amount of force a muscle can exert against a resistance	It is particularly important in such activities as weightlifting where the competitor is required to make 1 massive effort
Muscular Endurance	The ability to use voluntary muscles many times without getting tired	It is an important part of general fitness, since many people need muscular endurance in their everyday life
Flexibility	The range of movement possible at a joint	This reduces injuries and increases the range of movement possible at a joint
Body Composition	The percentage of body weight that is fat, muscle and Bone	Depending on the sport different body compositions may be required for example an endomorph for sumo wrestling

GO BACK TO TOPICS

Know the 6 Skill-related components of fitness.

- Agility - the ability to change the position of the body quickly and to control the movement of the whole body
- Balance - ability to retain the centre of mass of a body about the base of support.
- Co-ordination - the ability to use two or more body parts at once
- Power- the ability to undertake strength performances quickly. Power = strength x speed
- Reaction Time - the time between the presentation of a stimulus and the onset of movement
- Speed - the differential rate at which an individual is able to perform a movement or cover a distance in a period of time

GO BACK TO TOPICS



Explain the terms health, fitness and exercise.

1) DEFINE TERMS HEALTH, FITNESS AND EXERCISE.

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Know the 5 Health-related components of fitness.

1) NAME 4 HEALTH-RELATED COMPONENTS OF FITNESS

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Define each health-related component of fitness and explain why it is important for different activities.

1) DEFINE FLEXIBILITY & BODY COMPOSITION

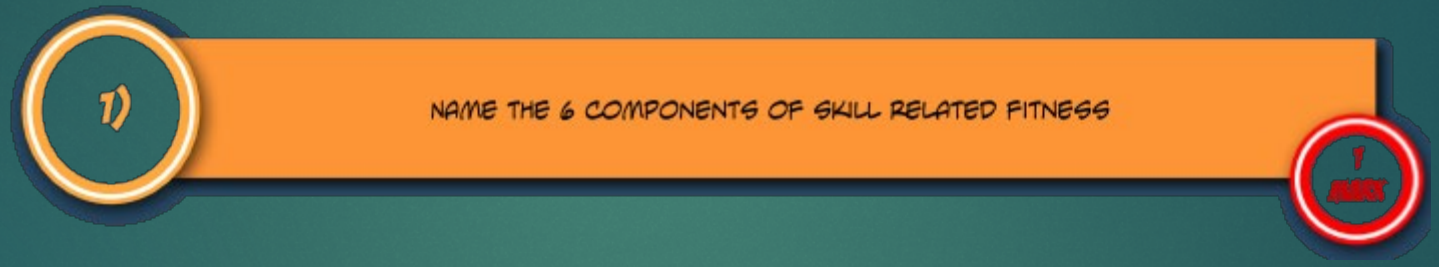
2 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Know the 6 Skill-related components of fitness.









Explain the terms health, fitness and exercise.

1)

HEALTH: A STATE OF COMPLETE MENTAL, PHYSICAL, AND SOCIAL WELL-BEING AND NOT MERELY THE ABSENCE OF DISEASE AND INFIRMITY

EXERCISE: PERFORMANCE PHYSICAL ACTIVITY WHICH MAINTAINS OR IMPROVES HEALTH AND/OR FITNESS

FITNESS: THE ABILITY TO MEET THE DEMANDS OF THE ENVIRONMENT





Know the 5 Health-related components of fitness.

1)

NAME 4 HEALTH-RELATED COMPONENTS OF FITNESS

(any of the following)

Cardiovascular fitness

Muscular strength

Muscular endurance

Flexibility

Body composition







Define each health-related component of fitness and explain why it is important for different activities.

1)

FLEXIBILITY- THE RANGE OF MOVEMENT POSSIBLE AT A JOINT

BODY COMPOSITION - THE PERCENTAGE OF BODY WEIGHT THAT IS FAT, MUSCLE AND BONE

2 MARK





Know the 6 Skill-related components of fitness.

1)

AGILITY - THE ABILITY TO CHANGE THE POSITION OF THE BODY QUICKLY AND TO CONTROL THE MOVEMENT OF THE WHOLE BODY

BALANCE - ABILITY TO RETAIN THE CENTRE OF MASS OF A BODY ABOUT THE BASE OF SUPPORT.

CO-ORDINATION - THE ABILITY TO USE TWO OR MORE BODY PARTS AT ONCE

POWER- THE ABILITY TO UNDERTAKE STRENGTH PERFORMANCES QUICKLY. POWER = STRENGTH X SPEED

RECATION TIME - THE TIME BETWEEN THE PRESENTATION OF A STIMULUS AND THE ONSET OF MOVEMENT

SPEED - THE DIFFERENTIAL RATE AT WHICH AN INDIVIDUAL IS ABLE TO PERFORM A MOVEMENT OR COVER A DISTANCE IN A PERIOD OF TIME





Questions

Explain the terms health, fitness and exercise.

Which health related component is described by 'The percentage of body weight which is fat, muscle and bone'?

Name this component and give an example of how this is important to a sportsperson (2)

Show me the answers

Go back to topics

Questions

Know the 5 Health-related components of fitness.

Describe ways in which a lack of exercise effects physical performance (4)

Show me the answers

Go back to topics

Questions

Define each health-related component of fitness and explain why it is important for different activities.

Rank the following components of health or skill-related components of fitness with reference to their importance to a 100m sprinter (1 being most important and 5 being least).

Rank and give a reason why it is or is not important (5)

Show Me The Answers

Go Back To Topics

Questions

Know the 6 Skill-related components of fitness.

Describe how a hurdler utilises different components of fitness.

You may choose either health or skill related? (3)

Show me the answers

Go back to topics

6 MARK ANSWERS

Explain the terms health, fitness and exercise.

15. Which health related component is described by 'The percentage of body weight which is fat, muscle and bone'?

Name this component and give an example of how this is important to a sportsperson (2)

Body Composition

Can influence what sport a person could be involved in, better knowledge of body shape and competencies can aid training requirements

GO BACK TO TOPICS

6 MARK ANSWERS

Know the 5 Health-related components of fitness.

Describe ways in which a lack of exercise effects physical performance (4)

Weight increase – weight gained if calories not burned off
Less flexibility
Become breathless sooner
Aerobic capacity reduced
Loss of strength

GO BACK TO TOPICS

6 MARK ANSWERS

Define each health-related component of fitness and explain why it is important for different activities.

Rank the following components of health or skill-related components of fitness with reference to their importance to a 100m sprinter (1 being most important and 5 being least). Rank and give a reason why it is or is not important (5)

1. Speed
2. Muscular Strength
3. Reaction Time
4. Flexibility
5. Agility

GO BACK TO TOPICS

6 MARK ANSWERS

Know the 6 Skill-related components of fitness.

Describe how a hurdler utilises different components of fitness.

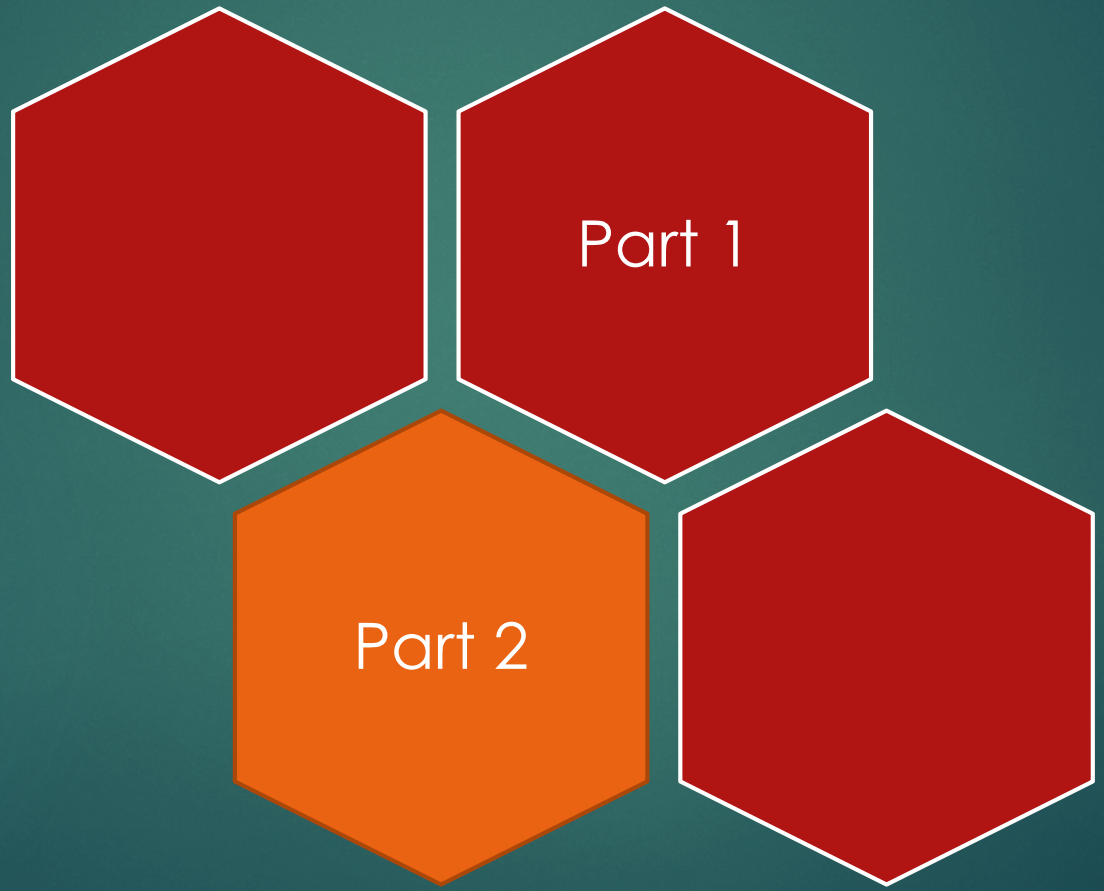
You may choose either health or skill related? (3)

Reaction Time – To Be Out Of The Blocks First
Speed – To Make It To Each Hurdle Quickly
Power – To Make Take-off Before The Hurdle
Coordination – Using All Limbs In Unison To Clear The Hurdle
Agility – To Clear The Hurdle Efficiently
Balance – To Land, Keeping The Body Stable After Clearing The Hurdle, And Resume The Running Phase

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.1.4: Physical activity as part of your HAL



GO TO PART 1,2,3

Topic 1.1.4: Physical activity as part of your HAL – Part 1

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on Physical activity as part of your HAL	6 Mark Questions Answers
Assess personal readiness (PAR-Q)					
Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)					
Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).					
FITT principle & Reversibility					
Explain the components of the FITT principle, and how it can improve your performance.					

Assess personal readiness (PAR-Q)

Before starting an exercise program you make sure you are ready to do the physical activity, you do this by taking the Physical Activity Readiness Questionnaire

Before you can complete the questionnaire you to be sure that your medical history any medical conditions, respiratory problems or other concerns

<u>The questions that you should consider are</u>

1. Have you any medical conditions e.g. a heart condition?
2. Do you experience chest pains
3. Do you have any ongoing injuries
4. Do you have high or low blood pressure
5. Do you have diabetes
6. Do you have asthma
7. Have you had a cold or flu a virus in the last 4 weeks
8. Is there any reason why you should not do physical activity

GO BACK TO TOPICS

Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)

Fitness test	Component it tests	Sporting Example
Cooper run (12 minute run)	Muscular endurance	Long-distance events
Hand grip strength test	Muscular strength	Javelin
Sit and reach flexibility test	Flexibility	Gymnastics
Illinois agility run	Agility	Invasion games
Standing stork test	Balance	Gymnastics
Sargent jump test	Power	Basketball
Standing broad jump	Power	Football
Ruler drop test	Reaction time	cricket
30 metre sprint	Speed	Athletics
Three ball juggle	Coordination	Badminton

GO BACK TO TOPICS

key concepts

Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).

Specificity

- Matching the training requirements of The Activity



Progressive overload

- Gradually increasing the amount of overload so as to gain fitness without risk of injury



Rest

- The period of time allowed for recovery. Recovery the time required to repair damage to the body cause my training or competition



Recovery

- The time required to repair damage to the body cause my training or competition



Individual needs / differences

- Taking into consideration the individual's needs before creating an exercise program



GO BACK TO TOPICS

FITT principle & Reversibility

Frequency — How often you train

Intensity — How hard you train

Time — How long is training session is

Type — The method of training you choose

Reversibility means gradually using sickness instead of progressing remaining at the current level

GO BACK TO TOPICS

key concepts

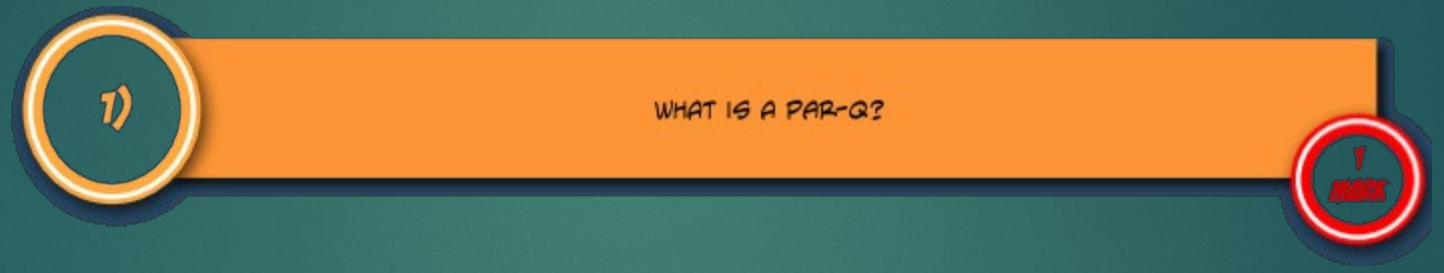
Explain the components of the FITT principle, and how it can improve your performance.

Component of FITT	How it can improve your performance	Sporting example
Frequency	Frequency should be a minimum of 3 times a week, but could be increased to four times a week. Frequency overlaps with the principles of rest and recovery and can be used to make good use of these. More often you train effectively the better your development	Increasing Football training 4 times a week compared to previously only doing 3
Intensity	This overlaps with the principle of progressive overload. To increase cardiovascular fitness you have to be working within the training zone	Changing the intensity of training when you're working up to a big competition
Time	In terms of cardiovascular fitness to increase it's you must train for least 20 minutes within the training zone	Professional players with train for 2 to 3 hours at the time
Type	Depending on your sports you would change the method of training you use	For example a triathlete may use cross training because within their sport they work at variety of muscles / components

GO BACK TO TOPICS



Assess personal readiness (PAR-Q)

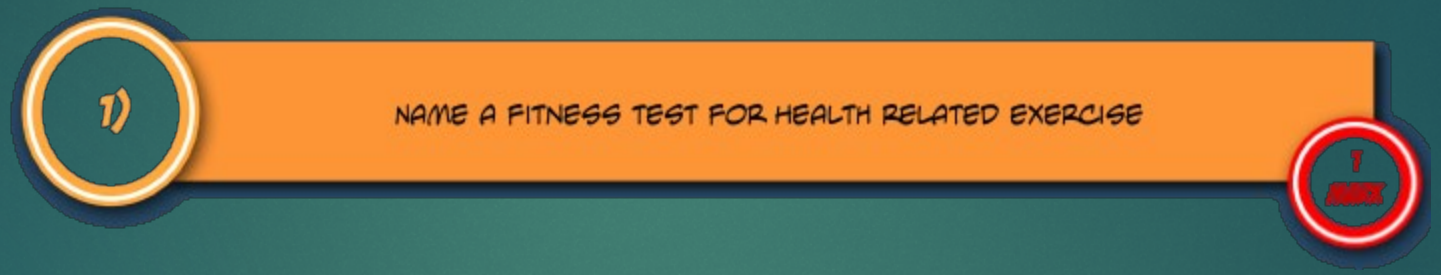








Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)









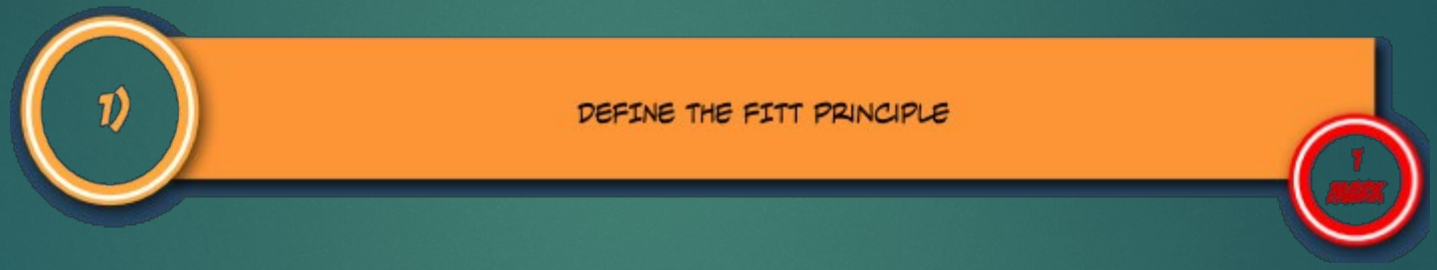
Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).

1) DEFINE ONE OF THE PRINCIPLES OF TRAINING. 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS

FITT principle & Reversibility





Explain the components of the FITT principle, and how it can improve your performance.

1)

COMPLETE THE FOLLOWING STATEMENT ABOUT THE PRINCIPLES OF TRAINING

THE PRINCIPLES OF TRAINING ARE USED TO IMPROVE FITNESS.
OVER A PERIOD OF TIME THE PERFORMER CAN IMPROVE FITNESS BY WORKING ..... IN THE TRAINING SESSIONS.

THIS RELATES TO THE TRAINING PRINCIPLE CALLED .....

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Assess personal readiness (PAR-Q)

1)

BEFORE STARTING AN EXERCISE PROGRAM YOU MAKE SURE YOU ARE READY TO DO THE PHYSICAL ACTIVITY, YOU DO THIS BY TAKING THE PHYSICAL ACTIVITY READINESS QUESTIONNAIRE

2 ANS





Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)

Fitness test	Component it tests	Sporting Example
Cooper run (12 minute run)	Muscular endurance	Long-distance events
Hand grip strength test	Muscular strength	Javelin
Sit and reach flexibility test	Flexibility	Gymnastics
Illinois agility run	Agility	Invasion games
Standing stork test	Balance	Gymnastics
Sargent jump test	Power	Basketball
Standing broad jump	Power	Football
Ruler drop test	Reaction time	cricket
30 metre sprint	Speed	Athletics
Three ball juggle	Coordination	Badminton

GO BACK TO TOPICS



Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).

1)

DEFINE ONE OF THE PRINCIPLES OF TRAINING.

ANY OF THE FOLLOWING

SPECIFICITY - MATCHING THE TRAINING REQUIREMENTS OF THE ACTIVITY

PROGRESSIVE OVERLOAD - GRADUALLY INCREASING THE AMOUNT OF OVERLOAD SO AS TO GAIN FITNESS WITHOUT RISK OF INJURY

REST - THE PERIOD OF TIME ALLOWED FOR RECOVERY. RECOVERY THE TIME REQUIRED TO REPAIR DAMAGE TO THE BODY CAUSE MY TRAINING OR COMPETITION

RECOVERY - THE TIME REQUIRED TO REPAIR DAMAGE TO THE BODY CAUSE MY TRAINING OR COMPETITION

INDIVIDUAL NEEDS / DIFFERENCES - TAKING INTO CONSIDERATION THE INDIVIDUAL'S NEEDS BEFORE CREATING AN EXERCISE PROGRAM

1 MARK

GO BACK TO TOPICS



FITT principle & Reversibility

1)

DEFINE THE FITT PRINCIPLE

FREQUENCY - HOW OFTEN YOU TRAIN

INTENSITY - HOW HARD YOU TRAIN

TIME - HOW LONG IS TRAINING SESSION IS

TYPE - THE METHOD OF TRAINING YOU CHOOSE

1 MARK

GO BACK TO TOPICS



Explain the components of the FITT principle, and how it can improve your performance.

1)

COMPLETE THE FOLLOWING STATEMENT ABOUT THE PRINCIPLES OF TRAINING

THE PRINCIPLES OF TRAINING ARE USED TO IMPROVE FITNESS.
OVER A PERIOD OF TIME THE PERFORMER CAN IMPROVE FITNESS BY WORKING
.....Harder/more..... IN THE TRAINING SESSIONS.

THIS RELATES TO THE TRAINING PRINCIPLE CALLED .....Overload.....

1 MARK



Questions

Assess personal readiness (PAR-Q)

Agility and balance are components of fitness that are important to a gymnast.

Define each and give the fitness test used (4)

Show me the answers

Go back to topics

Questions

Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)

Describe the aerobic training zone and name a sport which primarily uses this zone? (3)

Show me the answers

Go back to topics

Questions

Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).

An individual wishes to improve fitness and performance and decides to plan a training programme.

Discuss why the individual should consider each principle stated below. (5)

Rest and Recovery – Individual Needs – Progressive Overload – Specificity – FITT Principle

SHOW ME THE ANSWERS

GO BACK TO TOPICS

Questions

Know how to use the principles of training to improve your fitness and/or skills in a personal exercise programme.

Circuit training is used by a variety of sports people in order to improve performance.

Describe advantages and disadvantages of circuit training for an individual (6)

Show me the answers

Go back to topics

Questions

Explain the components of the FITT principle, and how it can improve your performance.

Describe how the principle of progressive overload would be applied to a training programme to improve performance (2)

Show me the answers

Go back to topics

6 MARK ANSWERS

Assess personal readiness (PAR-Q)

Agility and balance are components of fitness that are important to a gymnast.

Define each and give the fitness test used (4)

Agility definition – The ability to change the body's position quickly whilst under control

Agility test – Illinois agility test

Balance definition – The ability to retain the body's centre of mass above the base of support

Balance test – Stork stand

GO BACK TO TOPICS

6 MARK ANSWERS

Assess fitness levels for use in an exercise programme (know the tests for Health-related exercise and skill-related fitness)

Describe the aerobic training zone and name a sport which primarily uses this zone? (3)

The aerobic training zone occurs between 60-80% of the maximum heart rate.

A sport which would use this zone primarily would be marathon running, cycling etc.

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the principles of training (individual differences/needs, progressive overload, specificity, rest and recovery, FITT principle, reversibility).

An individual wishes to improve fitness and performance and decides to plan a training programme. Discuss why the individual should consider each principle stated below. (5)

Rest and Recovery – Individual Needs – Progressive Overload – Specificity – FITT Principle

Rest And Recovery – Rest Days Must Be Placed In The Programme To Ensure Injury Does Not Occur And Allows For Development And Repair Of The Body

Individual Needs – The Person Must Take Into Account Their Own Level Of Fitness And The Aspects They Need To Improve

Progressive Overload – The Person Must Make Sure That They Put Progressions In Their Programme In Order To Improve, If Exercise Demands Stay The Same Then The Person Will Not Improve

Specificity – The Person Must Take Into Account The Sport They Are Training For And Make The Programme Relevant To Those Requirements

Fit Principle – The Amount Of Training, Level Of Training, Time Trained For And Type Of Training Are Essential Considerations To Make Sure The Programme Is Beneficial And Provides Opportunity For Improvement

GO BACK TO TOPICS

6 MARK ANSWERS

Know how to use the principles of training to improve your fitness and/or skills in a personal exercise programme.

Circuit training is used by a variety of sports people in order to improve performance.

Describe advantages and disadvantages of circuit training for an individual (6)

Advantages – adaptable, do not need much space, use a variety of exercises, can be done on own, can need little equipment

Disadvantages – could be boring, may get repetitive, can be limited by equipment, can be limited by space

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the components of the FITT principle, and how it can improve your performance.

Describe how the principle of progressive overload would be applied to a training programme to improve performance (2)

Progressive overload must be applied in order for the individual to make progress, for example the length of time of a session ma increase throughout the programme, the intensity may increase or the weight/reps increase

GO BACK TO TOPICS

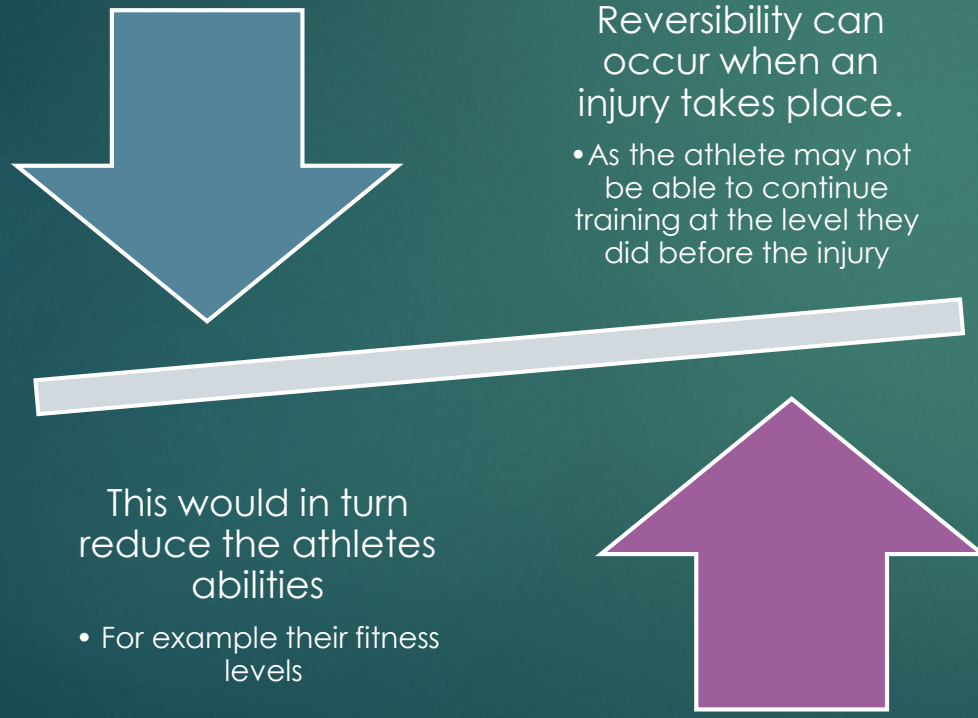
GO TO PART 1,2,3

Topic 1.1.4: Physical activity as part of your HAL – Part 2

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - On Physical activity as part of your HAL	6 Mark Questions Answers
Explain the term reversibility, why it might occur and its impact on performance.				Questions	
Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.				Questions	
Describe, explain and apply the principle of setting SMART targets.				Questions	
Describe the 6 main methods of training.				Questions	
Explain which sports/activities each method is most suited to.				Questions	
Explain the term reversibility, why it might occur and its impact on performance.				Questions	
Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.				Questions	

Explain the term reversibility, why it might occur and its impact on performance.

Reversibility means gradually using sickness instead of progressing remaining at the current level



Reversibility can occur when an injury takes place.

- As the athlete may not be able to continue training at the level they did before the injury

This would in turn reduce the athletes abilities

- For example their fitness levels

Reversibility may also occur if an individual stops training

GO BACK TO TOPICS

key concepts

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

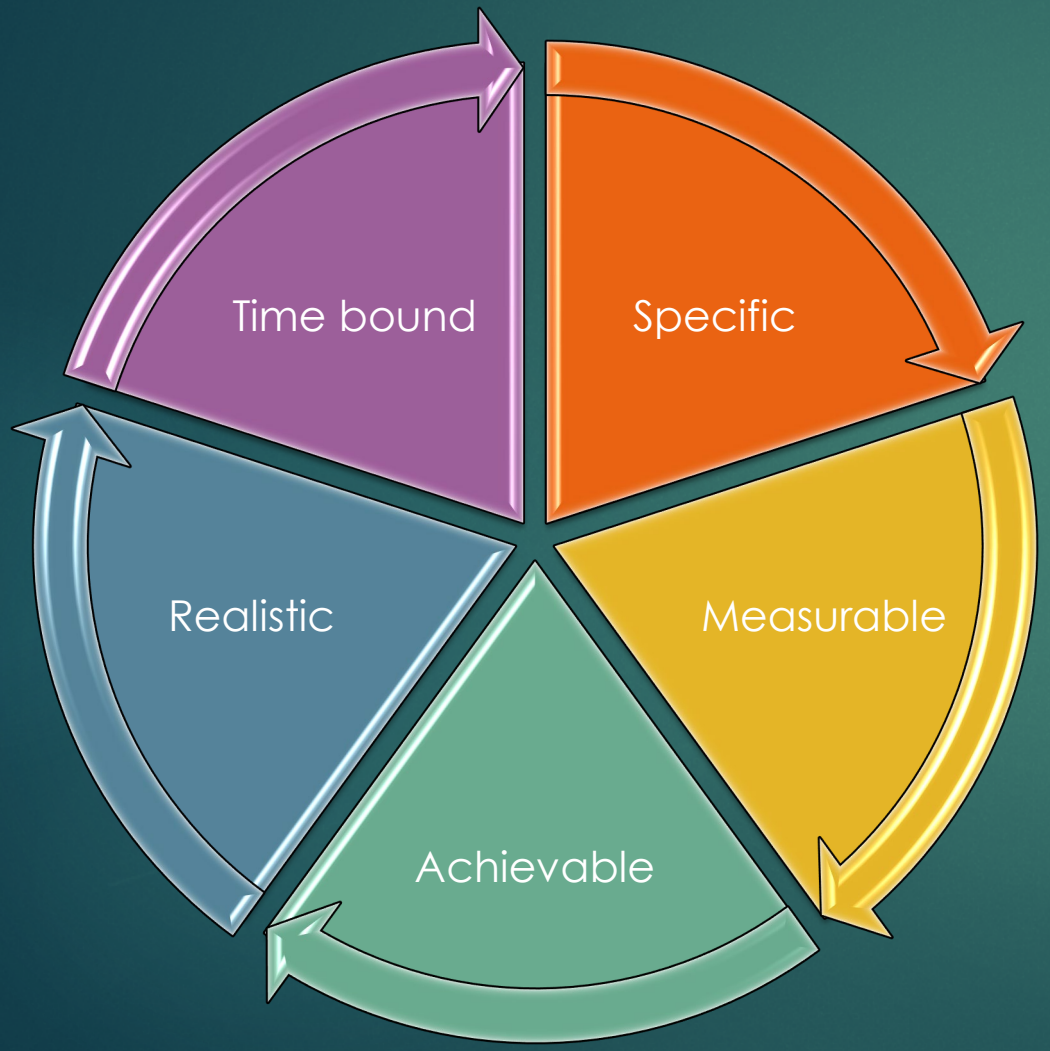
- Targets must be **specific** to your ability and be easily **measurable**. It also important that the targets set are **achievable** and **realistic**. Targets must also be **time-phased**.

- Short-term targets influence long-term targets. Short-term targets usually relate to specific areas of development. Try to ensure that achieving short term goals provides satisfaction and that they are linked to daily and weekly action plans.

- Long-term goals are often classified as outcome goals. Try to use outcome goals such as improving your performance.

GO BACK TO TOPICS

Describe, explain and apply the principle of setting SMART targets.



Specific: clearly state what is to be achieved, e.g. increased fitness.

Measurable: the desired outcome is a number value that can be measured, e.g. increase time in 100m

Achievable: it is something you could achieve.

Realistic:

Timed: the target will be met within a given period of time, e.g. 12 months.

GO BACK TO TOPICS

Describe the 6 main methods of training.

key concepts

Circuit training

involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance.

Fartlek training or 'speed play' training

involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness.

Continuous training

involves working for a sustained period of time without rest. It improves cardio-vascular fitness.

Interval training

involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance.

Cross training

involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump.

Weight training

uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).

TO TOPICS

Explain which sports/activities each method is most suited to.

Method of training	Examples of sports that would use it
Circuit training	Develops general fitness - all sports can benefit
Continuous training	Marathon Running, Long distance events
Cross training	Sprinters, racket sports
Fartlek training	Invasion games – football, basketball, rugby
Interval training	Football, Hockey, Swimming, Athletics
Weight training	Rugby, Weight Lifting,

GO BACK TO TOPICS

key concepts

Explain the term reversibility, why it might occur and its impact on performance.

Reversibility means gradually losing fitness instead of progressing or remaining at the current level.

This happens when a person is ill or injured.

Some people keep their fitness longer than others; this may be related to how long they have taken to build up their fitness or how serious their illness/injury was.

However, anyone will lose fitness if they stop training.

THIS IS A PRINCIPLE OF TRAINING YOU DO NOT WANT TO USE

GO BACK TO TOPICS

key concepts

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

People who set sensible goals, plan, record and monitor their progress are far more likely to meet their goals than those who do not.

It is very important to set goals write out a plan, monitor each training session and evaluate each weeks training.

Goal setting increases motivation, therefore make you more likely to achieve.

Remember to look at SMART Targets
(Click for SMART TARGETS)

GO BACK TO TOPICS



Explain the term reversibility, why it might occur and its impact on performance.

1)

DEFINE REVERSIBILITY

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

1)

THE REASONS FOR GOAL SETTING ARE TO:

A. OPTIMISE PERFORMANCE, JOIN IN AS MANY NEW SPORTS AS POSSIBLE, CONTROL ANXIETY

B. OPTIMISE PERFORMANCE, KEEP TO THE EXERCISE PLAN, CONTROL ANXIETY

C. KNOW WHERE TO SCORE, KEEP TO THE EXERCISE PLAN, CONTROL ANXIETY

D. OPTIMISE PERFORMANCE, KEEP TO THE EXERCISE PLAN, KNOW HOW TO FIND A SPORT YOU LIKE

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Describe, explain and apply the principle of setting SMART targets.

1) WHAT DOES THE S IN SMART TARGETS STAND FOR?

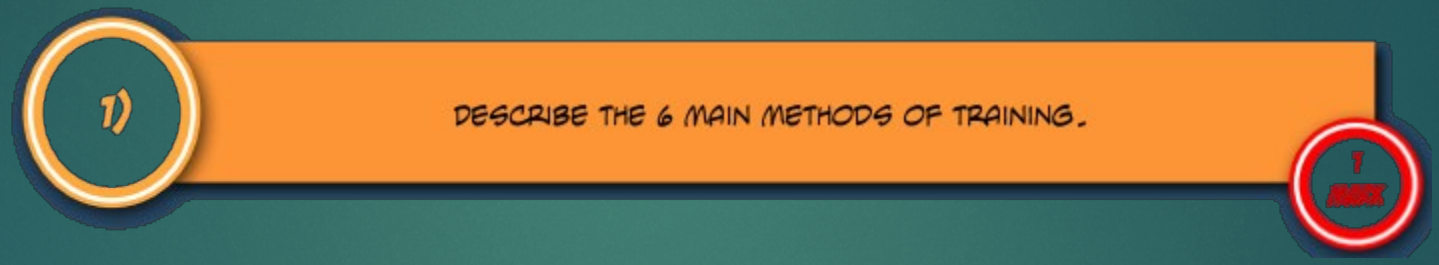
1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Describe the 6 main methods of training.

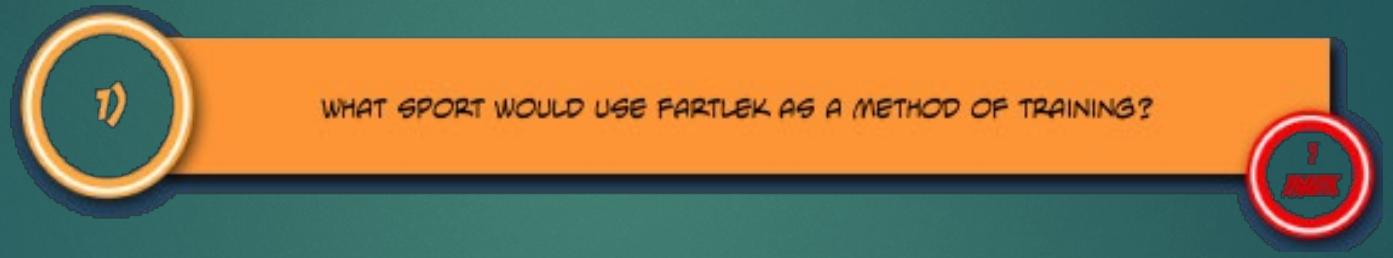








Explain which sports/activities each method is most suited to.



SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the term reversibility, why it might occur and its impact on performance.

1) DEFINE REVERSIBILITY 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

1) WHY DO WE SET GOALS/TARGETS IN TERMS OF PLANNING?

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the term reversibility, why it might occur and its impact on performance.

1)

DEFINE REVERSIBILITY

REVERSIBILITY MEANS GRADUALLY USING SICKNESS INSTEAD OF PROGRESSING REMAINING AT THE CURRENT LEVEL





Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

1)

THE REASONS FOR GOAL SETTING ARE TO:

B. OPTIMISE PERFORMANCE, KEEP TO THE EXERCISE PLAN, CONTROL ANXIETY







Describe, explain and apply the principle of setting SMART targets.

1)

WHAT DOES THE S STAND FOR?

SPECIFIC: CLEARLY STATE WHAT IS TO BE ACHIEVED, E.G. INCREASED FITNESS.

1 MARK

GO BACK TO TOPICS



Describe the 6 main methods of training.

1)

CIRCUIT TRAINING - INVOLVES PERFORMING A SERIES OF EXERCISES IN A SPECIAL ORDER CALLED A CIRCUIT. EACH ACTIVITY TAKES PLACE AT A 'STATION'. IT CAN BE DESIGNED TO IMPROVE SPEED, AGILITY, COORDINATION, BALANCE AND MUSCULAR ENDURANCE.

CONTINUOUS TRAINING - INVOLVES WORKING FOR A SUSTAINED PERIOD OF TIME WITHOUT REST. IT IMPROVES CARDIO-VASCULAR FITNESS.

CROSS TRAINING - INVOLVES USING ANOTHER SPORT OR ACTIVITY TO IMPROVE YOUR FITNESS. IT HAPPENS WHEN AN ATHLETE TRAINS IN A DIFFERENT ENVIRONMENT. FOR EXAMPLE A VOLLEYBALL PLAYER USES THE POWER TRAINING FOR THAT SPORT TO HELP WITH FITNESS FOR LONG JUMP.

FARTLEK TRAINING OR 'SPEED PLAY' TRAINING - INVOLVES VARYING YOUR SPEED AND THE TYPE OF TERRAIN OVER WHICH YOU RUN, WALK, CYCLE OR SKI. IT IMPROVES AEROBIC AND ANAEROBIC FITNESS.

INTERVAL TRAINING - INVOLVES ALTERNATING BETWEEN PERIODS OF HARD EXERCISE AND REST. IT IMPROVES SPEED AND MUSCULAR ENDURANCE.

WEIGHT TRAINING - USES WEIGHTS TO PROVIDE RESISTANCE TO THE MUSCLES. IT IMPROVES MUSCULAR STRENGTH (HIGH WEIGHT, LOW REPS), MUSCULAR ENDURANCE (LOW WEIGHT, HIGH REPS, MANY SETS) AND POWER (MEDIUM WEIGHT AND REPS PERFORMED QUICKLY).

GO BACK TO TOPICS



Explain which sports/activities each method is most suited to.

1) FARTLEK TRAINING WOULD MAINLY BE USED FOR INVASION GAMES – FOOTBALL, BASKETBALL, RUGBY





Explain the term reversibility, why it might occur and its impact on performance.

1)

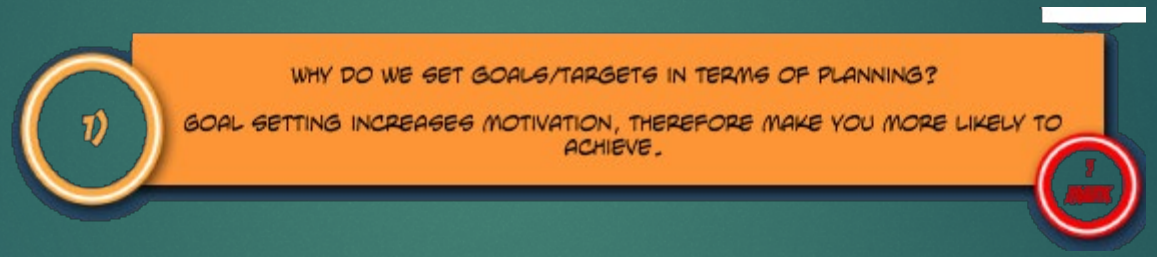
DEFINE REVERSIBILITY

REVERSIBILITY MEANS GRADUALLY USING SICKNESS INSTEAD OF PROGRESSING REMAINING AT THE CURRENT LEVEL





Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.





Questions

Explain the term reversibility, why it might occur and its impact on performance.

Jared uses the FITT principle of training to make sure he is fit for his activity.

Complete the table below

1) Explaining each component of the FITT principle.
2) Giving specific examples of its application to bring about overload in a personal exercise programme(PEP)

Component for principle	Explanation of component	Example of application to create overload
F		
I		
T		
T		N/A

Show me the answers

Go back to topics

Questions

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

Define Progressive Overload and suggest how it helps and individual improve.

Show me the answers

Go back to topics

Questions

Describe, explain and apply the principle of setting SMART targets.

SMART stands for: (5)

Show me the answers

Go back to topics

Questions

Describe the 6 main methods of training.

Define the following methods of training.

Circuit training
Continuous Training
Cross training
Fartlek Training
Interval training
Weight training

Show me the answers

Go back to topics

Questions

Explain which sports/activities each method is most suited to.

Fill in the below table with reference to which sports each method of training would be suited to developing.

Method of training	Examples of sports that would use it
Circuit training	
Continuous training	
Cross training	
Fartlek training	
Interval training	
Weight training	

Show me the answers

Go back to topics

Questions

Explain the term reversibility, why it might occur and its impact on performance.

Define the term Reversibility and suggest when this would happen to an athlete.

Show me the answers

Go back to topics

Questions

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

Eshan is inspired by performers in the run up to the London 2012 Olympic and Paralympic Games, and is determined to improve his performance. He decides to set SMART targets as a first step to achieving his long-term goal. (6)

Discuss the use of target setting to improve performance. You must make reference to examples in your answer.

SHOW ME THE ANSWERS

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the term reversibility, why it might occur and its impact on performance.

Jared uses the FITT principle of training to make sure he is fit for his activity.

Complete the table below

1) Explaining each component of the FITT principle.
2) Giving specific examples of its application to bring about overload in a personal exercise programme(PEP)

Component for principle	Explanation of component	Example of application to create overload
F	Frequency – how often you train **(Do not accept frequency on its own)**	Training once a week and then increasing to train twice a week
I	Intensity – How hard the person is working **(Do not accept Intensity on its own)**	Sprinting 20 shuttles rather than 18 **(Do not accept training harder)**
T	Time – How long a person trains for **(Do not accept Time on its own)**	First session was 20mins but by the 5th session it was 30 mins/equivalent **(Do not accept training longer)**
T	Type – the training must match the needs of the activity **(Do not accept type on its own)**	N/A

10 TOPICS

6 MARK ANSWERS

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

Progressive Overload is defined as which of the following? (1)

Working the body harder than normal and then increasing the intensity gradually.

By progressively increasing the weight it an individuals strength will increase as it allows for rest and recovery to take place. It also increase motivation as the individual will have progressive success.

GO BACK TO TOPICS

6 MARK ANSWERS

Describe, explain and apply the principle of setting SMART targets.

5. SMART stands for: (1)

Specific,
Measurable
Achievable
Realistic
Time bound

GO BACK TO TOPICS

6 MARK ANSWERS

Describe the 6 main methods of training.

Define the following methods of training.

1. Circuit training - involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance.

2. Continuous Training - involves working for a sustained period of time without rest. It improves cardio-vascular fitness.

3. Cross training - involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump.

4. Fartlek Training - involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness.

5. Interval training - involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance.

6. Weight training - uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).

GO BACK TO TOPICS

6 MARK ANSWERS

Explain which sports/activities each method is most suited to.

Fill in the below table with reference to which sports each method of training would be suited to developing.

Method of training	Examples of sports that would use it
Circuit training	Develops general fitness - all sports can benefit
Continuous training	Marathon Running, Long distance events
Cross training	Sprinters, racket sports
Fartlek training	Invasion games – football, basketball, rugby
Interval training	Football, Hockey, Swimming, Athletics
Weight training	Rugby, Weight Lifting,

BACK TO TOPICS

6 MARK ANSWERS

Explain the term reversibility, why it might occur and its impact on performance.

Define the term Reversibility and suggest when this would happen to an athlete.

Reversibility means gradually losing fitness instead of progressing or remaining at the current level.

This happens when a person is ill or injured.

Some people keep their fitness longer than others; this may be related to how long they have taken to build up their fitness or how serious their illness/injury was.

However, anyone will lose fitness if they stop training.

THIS IS A PRINCIPLE OF TRAINING YOU DO NOT WANT TO USE

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the value of goal setting in terms of planning, developing and maintaining regular involvement in physical activity.

	Answer
	A **discussion** of the use of target setting to improve performance that makes reference to:

1. The individual principles of SMART targets: (all correctly listed = simple statement)

   Specific, Measurable, Achievable, Realistic, Time-bound

2. A brief description of the individual principles of SMART:

   (simple statements unless linked to examples/performance) Specific, goals clear so performer knows what they are trying to achieve
   Measurable, quantifying aim
   Achievable, make sure the target is realistic, i.e. it is possible for the performer to complete
   Realistic, making the target challenging but not too hard
   Time-bound, you should have completion dates for targets

3. Examples of the application of the principles of SMART targets:

   (first half simple statement; whole statement - developed)
   Specific, work on weakness x to give my training appropriate focus for improvement
   Measurable, improve 100m sprint time by 100^{th} sec so clear to see when I achieve
   Achievable, if I can already clear 2m setting a target of 2.1m should ultimately be achievable so motivates me to continue (must have current and future value to gauge if 'achievable')
   Realistic, if I normally score 1 rounder per game increasing to 2 would be realistic, but 6 would not and would be demotivating Time-bound, I will achieve this goal by May 2012 so I check I am progressing at the right rate and alter target or set new one to continue improving

4. Makes reference to the value of the use of target setting to improve performance: (first half simple statement; whole statement - developed)

   TS provides focus - so work on what is relevant leading to improvement
   TS allows you to measure progress so you can monitor effectiveness of training programme -and change if not getting results required
   TS increases motivation -so more likely to maintain training and continue to improve
   TS can decrease stress on the performer as only small target or stepsfocused on in order to achieve harder long term goal
   TS gives a framework to build on, progressing and setting new targets each time an old target is achieved-so you are continually working to improve
   TS Can hinder if poorly set targets as they will not be achieved -and lead to demotivation/dropping out therefore drop in performance

5. Concludes value based on discussion points raised

Click To Enlarge

GO BACK TO TOPICS

Topic 1.1.5: Your personal health and well-being

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions – on Your personal health and well-being	6 Mark Questions Answers
Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being					
Recall the 7 factors of a balanced diet.					
Explain how each of these factors fits into a balanced, healthy lifestyle (i.e. give examples of foods which contain each nutrient; state their function; give examples of an athlete who would need to consume each nutrient).					
Understand the importance of the right timing of dietary intake for optimum performance (pre, post and during exercise; carbo-loading)					
Explain how blood flow (blood shunting) changes during exercise.					

key concepts

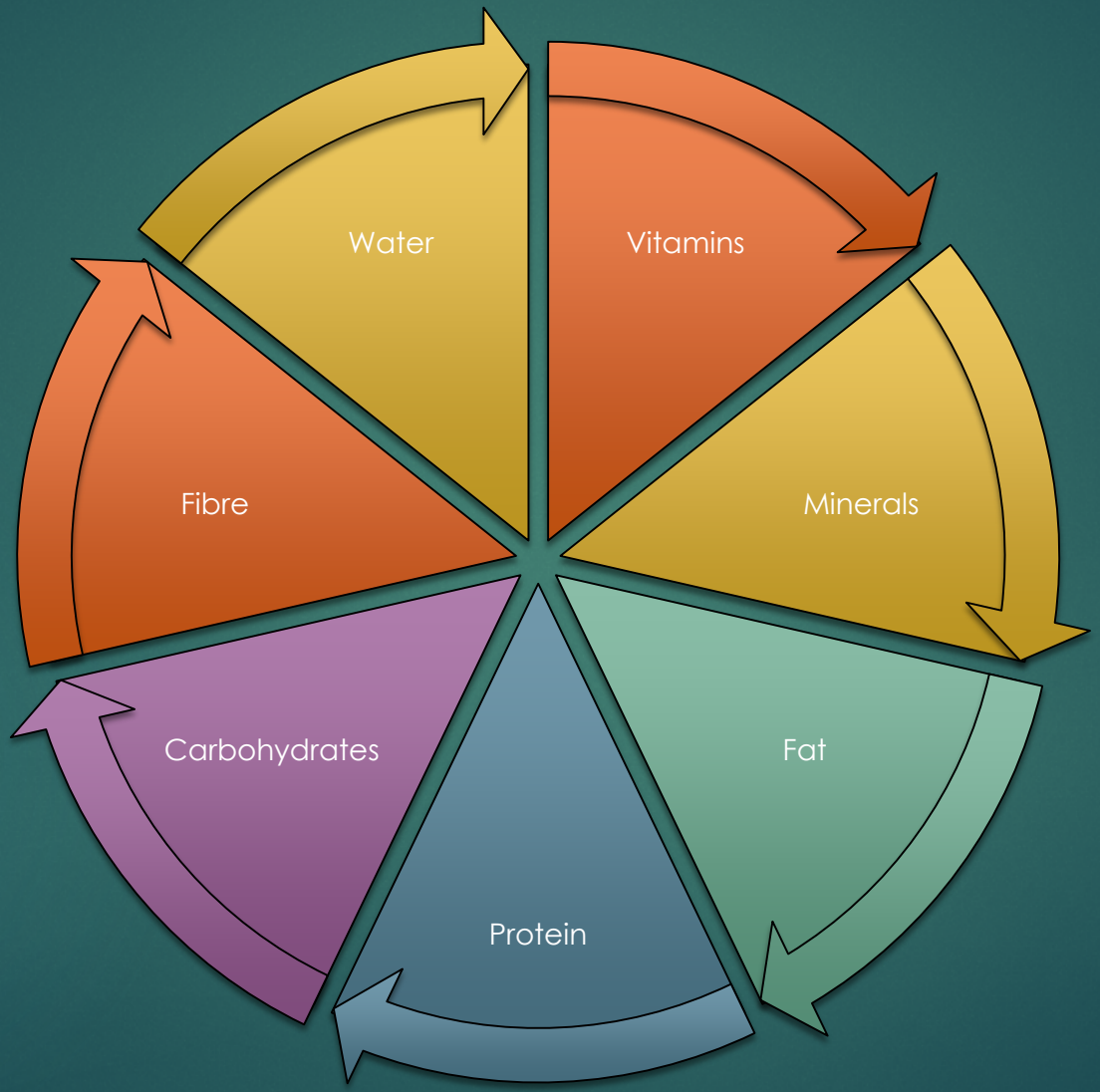
Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being

Diet and Sport

- As well as thinking about having a balanced diet and getting all of the nutrients your body needs on a daily basis, athletes also have to think about what foods are going to benefit their sporting performance and when they should eat to fit around training and competitions.
- Athletes involved in different sports will have very different diets.
- For example, a weight lifter will eat a diet high in protein to help their **muscles** grow. An endurance athlete will have a diet high in carbohydrates to store their muscles with glycogen for energy.

GO BACK TO TOPICS

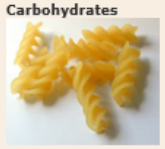
The 7 factors of a balanced diet.



GO BACK TO TOPICS

key concepts

Explain how each of these factors fits into a balanced, healthy lifestyle.

Food type	How does it help?	When do we need it in sport?	Where do we get it?
Carbohydrates 	Provides quick energy. 60% of our diet should comprise 'carbs'.	Running. Athletes in training will eat more 'carbs'. Marathon runners will *'load'* before the event.	Pasta, cereals and potatoes
Fats NB Unsaturated fats are healthy. Too much saturated fat from animal products can lead to heart disease. 	Provides slow energy. 25% of our diet should be fat.	Walking and low impact exercise - it produces energy too slowly to be used when working hard.	Oils, dairy products, nuts and fish
Protein 	Builds and repairs muscle. We only need 15% of our diet to be protein.	When training hard and recovering from injury. 'Power' athletes such as weight lifters will eat more protein.	Meat, pulses and fish
Vitamins  eg **A** - for vision **B** - for energy production and stress reduction **C** - to keep skin healthy **D** - to help bones and teeth	Helps the body work. Helps concentration.	Staying calm, making quick decisions	Fresh fruit and vegetables
Minerals	Helps release energy from food.	When training hard and competing	Fruit, vegetables and fish

Food type	How does it help?	When do we need it in sport?	Where do we get it?
 eg **Calcium** - to strengthen bones **Iodine** - for energy production **Iron** - prevents fatigue	Helps decision making		
Fibre 	Can't be digested. Fills you up and keeps you 'regular'	Healthy digestion, (no constipation) helps in sport. Also helps with weight control.	Fresh fruit, vegetables and wholegrain cereals
Water 	Maintains fluid levels	Whenever you sweat. It prevents dehydration	The tap! It's all you need most of the time.

Click to enlarge

GO BACK TO TOPICS

key concepts

lerstand the importance of the right timing of dietary ıtake for optimum performance (pre, post and during exercise; carbo-loading)

Caro-Loading

When building up to a competition, some athletes will also use a technique called carbo-loading, where they eat a lot of carbohydrate rich foods in the run up to the event.

Why Carbo-Load

This ensures their muscles and liver are stocked up with glycogen so they have plenty of energy.

Eating During exercise

During an activity you shouldn't eat anything as your digestive system may not be able to cope as the blood is being diverted to your working muscles, not your stomach!

Drinking Water

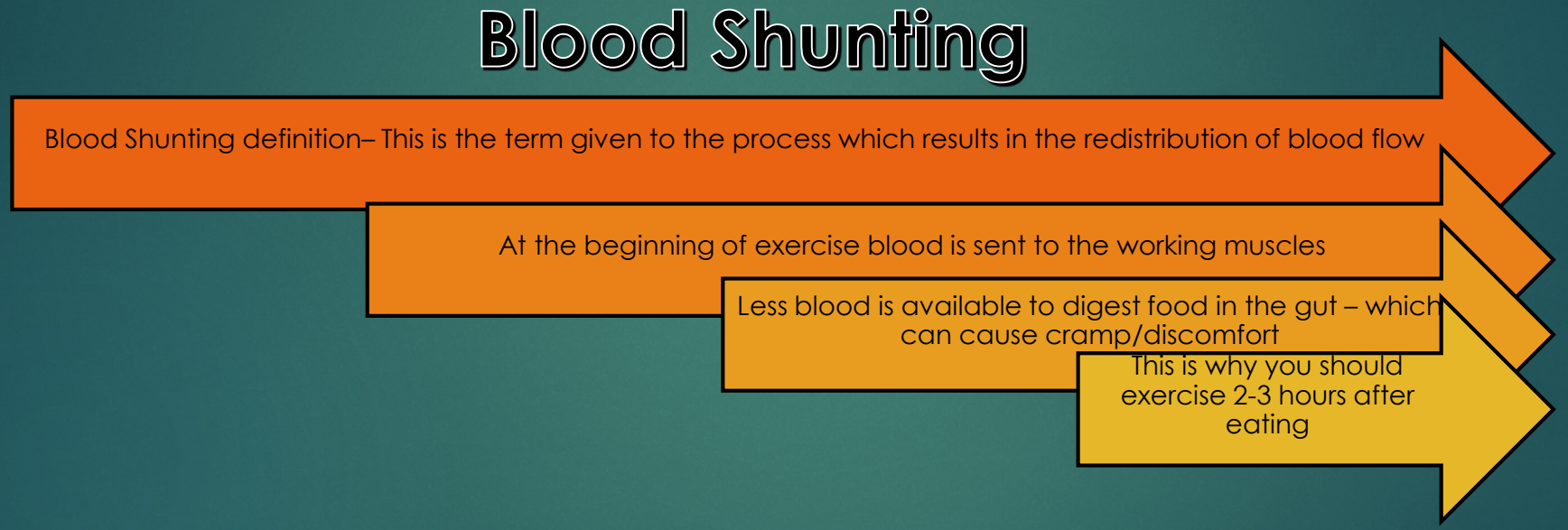
You should always make sure you keep drinking throughout exercise though, to replace the fluid you are loosing through sweat and breathing out more water vapour.

Post Exercise

You should always make sure you keep drinking throughout exercise though, to replace the fluid you are loosing through sweat and breathing out more water vapour.

GO BACK TO TOPICS

Explain how blood flow (blood shunting) changes during exercise.



GO BACK TO TOPICS



Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being

1)

2. WHICH OF THE FOLLOWING ARE EXAMPLES OF CARBOHYDRATE? (1)

A. PASTA, BEER, BREAD, MEAT

B. RICE, CHEESE, FRUIT, MILK

C. PASTA, RICE, POTATOES, BREAD

D. BREAD, MILK, CHEESE, BEANS

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Recall the 7 factors of a balanced diet.

1)

NAME 3 FACTORS OF A BALANCED DIET

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain how each of these factors fits into a balanced, healthy lifestyle (i.e. give examples of foods which contain each nutrient; state their function; give examples of an athlete who would need to consume each nutrient).

1) NAME TWO FOODS WHICH ARE RICH IN VITAMINS 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand the importance of the right timing of dietary intake for optimum performance (pre, post and during exercise; carbo-loading)

1)

Which of the following best describes carbohydrate loading

a. Eating foods that allow storage of glycogen to build up in the body

b. Eating foods that are high in bulk to fill you up

c. Eating foods that give you a balance of all nutrients

d. Eating foods that will reduce weight and build up muscle

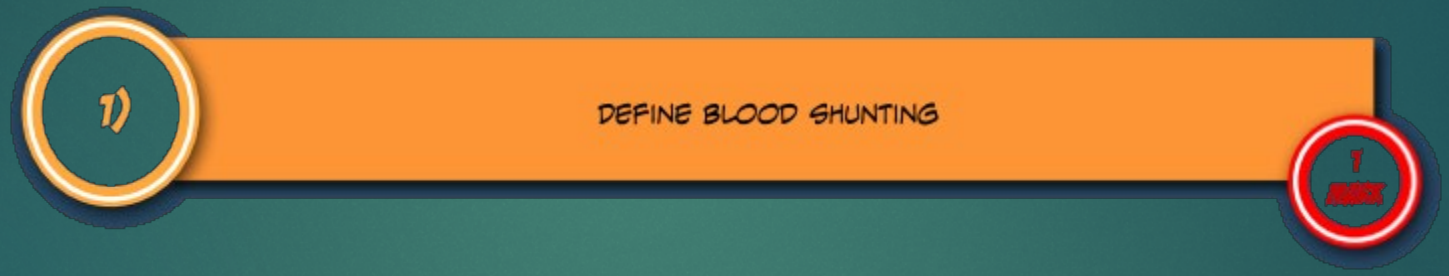
1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain how blood flow (blood shunting) changes during exercise.









Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being

1)

2. WHICH OF THE FOLLOWING ARE EXAMPLES OF CARBOHYDRATE? (1)

C. PASTA, RICE, POTATOES, BREAD

1 MARK

GO BACK TO TOPICS



Recall the 7 factors of a balanced diet.

1)

NAME 3 FACTORS OF A BALANCED DIET:

ANY OF THE FOLLOWING

VITAMINS

MINERALS

FAT

PROTEIN

CARBOHYDRATES

FIBRE

WATER







Explain how each of these factors fits into a balanced, healthy lifestyle (i.e. give examples of foods which contain each nutrient; state their function; give examples of an athlete who would need to consume each nutrient).

1)

NAME TWO FOODS WHICH ARE RICH IN VITAMINS

ANY OF THE FOLLOWING

CARROTS, BANANAS, GRAPES, PEAR ANY EQUIVALENT

1 MARK

GO BACK TO TOPICS

Time for Answers

Understand the importance of the right timing of dietary intake for optimum performance (pre, post and during exercise; carbo-loading)

1)

Which of the following best describes carbohydrate loading

a. Eating foods that allow storage of glycogen to build up in the body

1 MARK

GO BACK TO TOPICS



Explain how blood flow (blood shunting) changes during exercise.

1)

DEFINE BLOOD SHUNTING

BLOOD SHUNTING DEFINITION– THIS IS THE TERM GIVEN TO THE PROCESS WHICH RESULTS IN THE REDISTRIBUTION OF BLOOD FLOW

1 MARK



Questions

Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being

A balanced diet has many beneficial effects on the body. These benefits can include a reduced chance of health problems, name 5 health problems which a balanced diet can help to avoid.(5)

Show me the answers

Go back to topics

Questions

Recall the 7 factors of a balanced diet.

Describe carbo-loading and the benefits it has on performance? (3)

Show me the answers

Go back to topics

Questions

Explain how each of these factors fits into a balanced, healthy lifestyle (i.e. give examples of foods which contain each nutrient; state their function; give examples of an athlete who would need to consume each nutrient).

Name 4 sports which require a higher level of calorie intake (4)

Show me the answers

Go back to topics

Questions

Understand the importance of the right timing of dietary intake for optimum performance (pre, post and during exercise; carbo-loading)

Discuss factors which can affect energy requirements for an individual (6)

Show me the answers

Go back to topics

Questions

Explain how blood flow (blood shunting) changes during exercise.

Describe two possible effects of dehydration on an athlete (2)

Show me the answers

Go back to topics

6 MARK ANSWERS

Know the links between exercise, diet, work and rest and explain how these factors influence your personal health and well-being

A balanced diet has many beneficial effects on the body.

These benefits can include a reduced chance of health problems, name 5 health problems which a balanced diet can help to avoid.(5)

Heart disease
High Blood Pressure
Stress
Stroke
High Cholesterol

GO BACK TO TOPICS

6 MARK ANSWERS

Recall the 7 factors of a balanced diet.

Describe carbo-loading and the benefits it has on performance? (3)

Diet is adapted in the week leading up to the competition, allows a build up of glycogen in the body ready to be used when needed.

It will reduce levels of fatigue and so help to maintain a high standard of performance

GO BACK TO TOPICS

6 MARK ANSWERS

Explain how each of these factors fits into a balanced, healthy lifestyle (i.e. give examples of foods which contain each nutrient; state their function; give examples of an athlete who would need to consume each nutrient).

Name 4 sports which require a higher level of calorie intake (4)

Rugby, Marathon running, Tennis, Football etc.

GO BACK TO TOPICS

6 MARK ANSWERS

Understand the importance of the right timing of dietary intake for optimum performance (pre, post and during exercise; carbo-loading)

Discuss factors which can affect energy requirements for an individual (6)

Amount of Exercise, Age, Sex, Size, Pace of Life, Level of Exercise Undertaken, Metabolism, Lifestyle

GO BACK TO TOPICS

6 MARK ANSWERS

Explain how blood flow (blood shunting) changes during exercise.

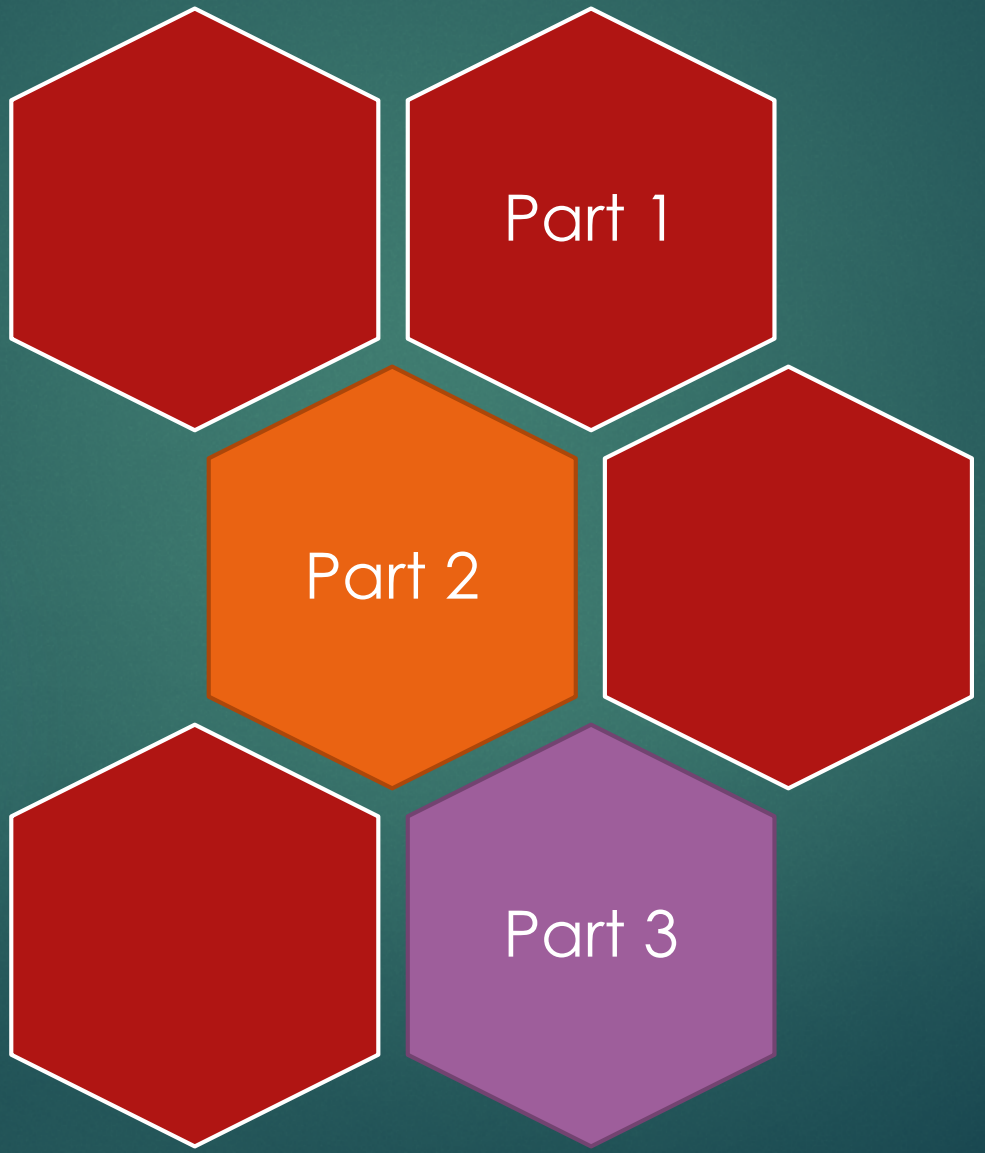
Describe two possible effects of dehydration on an athlete (2)

Make them weak or disorientated

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.2.1: Physical activity and your healthy mind and body – Part 1



GO TO PART 1,2,3

Topic 1.2.1: Physical activity and your healthy mind and body – Part 1

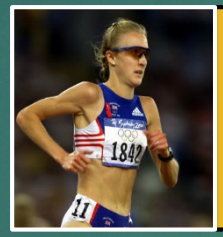
Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions – on Physical activity and your healthy mind and body	6 Mark Questions Answers
Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.					
Explain the effect each somatotype can have on participation and performance.					
Identify activities where different somatotypes are an advantage.					
Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.					
Define the terms anorexic, obese, overfat, overweight and underweight.					

Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.

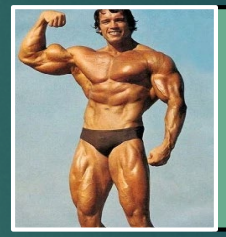
Somatotypes – bodies come in all shapes and sizes but can be grounded into three basic types.



Endomorph



Ectomorph



Mesomorph

Click the somatotype for a definition

GO BACK TO TOPICS

Explain the effect each somatotype can have on participation and performance.

Certain body types are more suited for certain Sports. Take athletics for example, it's not surprising that throwers (who are predominantly mesomorphic / endomorphic) can't be different shapes to high jumpers (who are predominantly ectomorphic).

Body Type	Sport	Picture (click to enlarge)
Endomorph	**Sports that depend on power** **Rugby, Sumo Wrestling**	
Ectomorph	**Tend to excel at long distance events** **Marathons, High jump**	
Mesomorph	**Tend to be involved in sports which require strength and sudden burst of energy.** **American football, Sprinting**	

GO BACK TO TOPICS

Identify activities where different somatotypes are an advantage.

Certain body types are more suited for certain Sports. Take athletics for example, it's not surprising that throwers (who are predominantly mesomorphic / endomorphic) can't be different shapes to high jumpers (who are predominantly ectomorphic).

Body Type	Advantage	Picture (click to enlarge)
Endomorph	**Strength, pushing, throwing**	
Ectomorph	**Jumping, running for long periods**	
Mesomorph	**Speed, Power, Strength**	

GO BACK TO TOPICS

key concepts

Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.

Click picture for more info



Factors affecting optimum weight



Optimum weight in sport



Losing weight

GO BACK TO TOPICS

Gender	Men and women have different body composition; men tend to have more muscle and larger bones. Therefore males and females have different charts to find the optimal weight
Bone structure	Bodies have different bone structures, sometimes referred to as a frame size.
Muscles Girth	As with bone structure, people naturally have different muscle growth which means that they weigh more; simple charts that measure optimum weight only according to height messages that people are overweight (for example BMI). In most cases muscle girth increases with training. There for sports people who need strong muscles, such as England rugby star Andrew Sheridan, have a large muscle girth.
Genetic	Body weight and the Shape I like the past onto the genetics of the parents to the child

GO BACK TO TOPICS

Optimum weight in sport

- The optimum weight for individual sports people varies widely according to the sport; rugby in horse racing, for example, have quite different requirements.
- In Rugby, optimum weight maybe higher compared with people of similar height as rugby players need more muscular strength.
- Where as a jockey needs to be short in height, with small bone structure a minimum amount of muscle.

GO BACK TO TOPICS

Losing weight

Many people need to lose weight to reach the optimal weight.

In some sports, such as boxing horse racing, it is necessary to lose weight rapidly, as boxers and jockeys need to make the weight they are fighting or riding at

People who want to lose weight you can do so by:

- Decreasing calorie intake (dieting)
- Increasing calorie expenditure (exercising)
- Doing both (dieting and exercise)

GO BACK TO TOPICS

key concepts

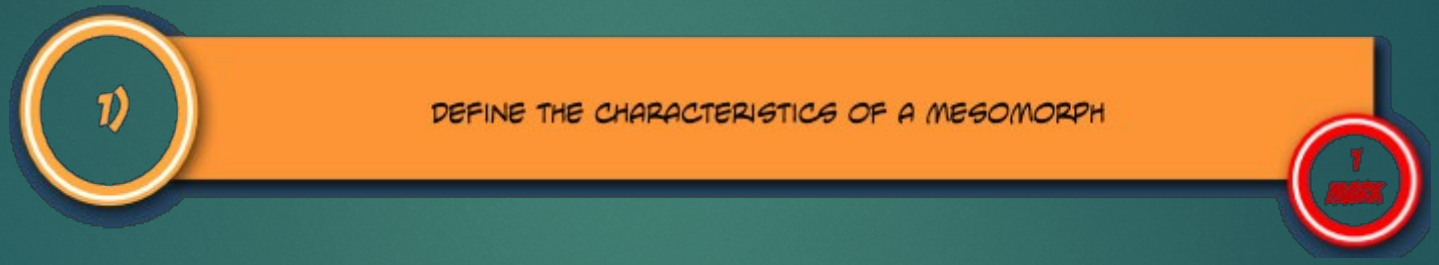
Define the terms anorexic, obese, overfat, overweight and underweight.

Anorexia	Obese	Overfat	Underweight	Overweight
• I prolong eating disorder due to loss of appetite	• A term used to describe people who are very overfat	• Having body fat in excess of normal	• Weighing less than a normal healthy all required weight	• Having weight in excess of normal (not home for less accompanied by overfatness

GO BACK TO TOPICS



Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.

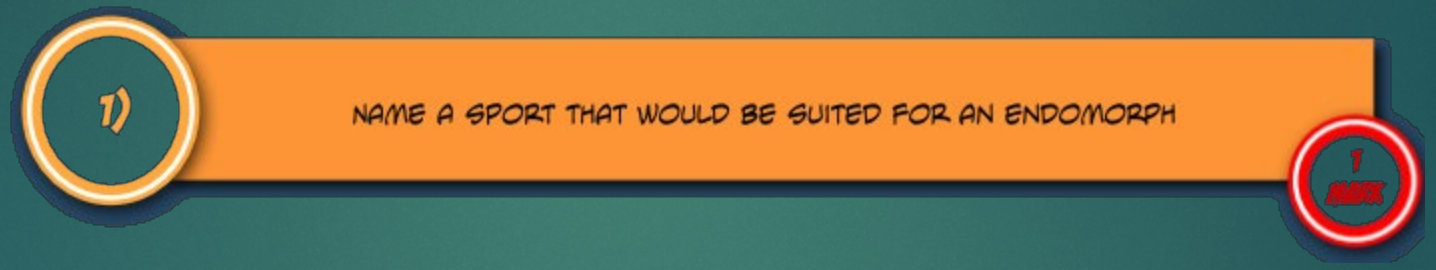








Explain the effect each somatotype can have on participation and performance.



SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify activities where different somatotypes are an advantage.

1) WHAT SPORT WOULD YOU EXPECT AN ECTOMORPH EXCEL IN?

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.

1) NAME 4 FACTORS THAT AFFECT OPTIMUM WEIGHT

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Define the terms anorexic, obese, overfat, overweight and underweight.

1) DEFINE THE TERM UNDERWEIGHT

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.

1)

DEFINE THE CHARACTERISTICS OF A MESOMORPH

Mesomorphs - wedge-shaped body, wide shoulders, narrow hips, muscular. Ideal body type for sprinters.

1 MARK





Explain the effect each somatotype can have on participation and performance.

1)

NAME A SPORT THAT WOULD BE SUITED FOR AN ENDOMORPH

SPORTS THAT DEPEND ON POWER

RUGBY, SUMO WRESTLING







Identify activities where different somatotypes are an advantage.

1) WHAT SPORT WOULD YOU EXPECT AN ECTOMORPH EXCEL IN?

Jumping, running for long periods

1 MARK

GO BACK TO TOPICS



Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.

1)

NAME 4 FACTORS THAT AFFECT OPTIMUM WEIGHT

Gender, bone Structure, Muscle Girth, Genetics

1 MARK





Define the terms anorexic, obese, overfat, overweight and underweight.

1)

DEFINE THE TERM UNDERWEIGHT

WEIGHING LESS THAN A NORMAL HEALTHY ALL REQUIRED WEIGHT

1 POINT



Questions

Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.

Expected weight and optimum weight may affect participation in physical activity.

Describe these effects (5)

Show me the answers

Go back to topics

Questions

Explain the effect each somatotype can have on participation and performance.

Complete the following table

Key Term	Description
Overweight	
Overfat	
Obese	
Underweight	

Show me the answers

Go back to topics

Questions

Identify activities where different somatotypes are an advantage.

Owais and Melvin are both "fit" for their activities. Owais the gymnast has a typical mesomorph body type, while Melvin the rock climber would be categorised as an ectomorph

Complete the table below:

1) Describe each body type
2) Explain how the body type could aid the boys' performance in their chosen activities.

Body type	Description of body type	How the body type could aid the boys' performance in their chosen activities
Mesomorph (gymnast)		
Ectomorph (rock climber)		

Show me the answers

Go back to topics

Questions

Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.

Which of the following three body conditions is considered to be the most dangerous to health?

Obese, overweight, overfat

Why is it unlikely that an elite performer will have this condition

Show me the answers

Go back to topics

Questions

Define the terms anorexic, obese, overfat, overweight and underweight.

Explain why an injured athlete weight will increase if he maintains the same diet during the injury as you did while training/

Show Me The Answers

Go Back To Topics

6 MARK ANSWERS

Know the characteristics of different body types (somatotypes): endomorph, mesomorph, ectomorph.

Expected weight and optimum weight may affect participation in physical activity. Describe these effects (5)

Weight may hinder participation in some activities, may define which sports someone takes part in, how effectively skills are performed, how quickly fatigue sets in, speed of performing skills, speed, flexibility

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the effect each somatotype can have on participation and performance.

Complete the following table

Key Term	Description
Overweight	Having excess weight above the normal amount
Overfat	More body fat than you should have
Obese	Very overfat, more than 20% over the recommended weight
Underweight	Weighing less than is normal, healthy or required

GO BACK TO TOPICS

6 MARK ANSWERS

Identify activities where different somatotypes are an advantage.

Owais and Melvin are both "fit" for their activities. Owais the gymnast has a typical mesomorph body type, while Melvin the rock climber would be categorised as an ectomorph

Complete the table below:

1) Describe each body type
2) Explain how the body type could aid the boys' performance in their chosen activities.

Body type	Description of body type	How the body type could aid the boys' performance in their chosen activities
Mesomorph (gymnast)	Muscular/wide shoulders and narrow hips	Greatest strength for balances/support positions, pull themselves up on the Rings. Greater power for faster movement in tumbling routines
Ectomorph (rock climber)	slight build/ tall and thin/ slim/ equivalent	Tall - good reach for choice of hand-held / foothold / equivalent Thin - less weight to support make it easier to climb/ pull-up rockface/ equivalent

GO BACK TO TOPICS

6 MARK ANSWERS

Understand optimum weight, and explain why it varies according to height, gender, bone structure and muscle girth and how it can affect performance and participation in physical activity.

Which of the following three body conditions is considered to be the most dangerous to health?

Obese, overweight, overfat

Why is it unlikely that an elite performer will have this condition

Obese

They will be burning off a lot of calories during the training / have a carefully planned diet to make sure that they do not gain weight

GO BACK TO TOPICS

6 MARK ANSWERS

Define the terms anorexic, obese, overfat, overweight and underweight.

Explain why an injured athlete weight will increase if he maintains the same diet during the injury as you did while training/

He is maintaining the same calorie input, but not using as much, the calorie not being used will then stored as fat

GO BACK TO TOPICS

GO TO PART 1,2,3

Topic 1.2.1: Physical activity and your healthy mind and body – Part 2

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on Physical activity and your healthy mind and body	6 Mark Questions Answers
Explain how the above conditions might affect physical activity.					
Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).					
Explain the impact of performance enhancing drugs on well-being and performance (i.e. potential benefits, side-effects, examples of athletes who may use them).					
Give reasons why some performers might risk taking performance-enhancing drugs.					
Explain how the above conditions might affect physical activity.					



Explain how anorexic, obese, overfat, overweight and underweight might affect physical activity.

GO BACK TO TOPICS

key concepts

Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).





Click the pictures for more information

Performance Enhancing

- Anabolic steroids
- Beta blockers
- Diuretics
- Narcotic analgesics
- Stimulants
- Peptide hormones including erythropoietin/EPO

Recreational

- Nicotine
- Marijuana
- Alcohol
- Caffeine

GO BACK TO TOPICS

Drug	Definition	Why would you take them
Anabolic steroids	Drugs that mimic testosterone to promote bone and muscle growth	Increase muscles growth and aid recovery
Beta blockers	Drugs that are used to control the heart rate and have a calming and relaxing effect.	Calm nerves
Diuretics	Drugs that elevate the rate of urine production	To mask other drugs
Narcotic analgesics	Drugs that can be used to reduce pain	To train while injured
Stimulants	Drugs that have an effect in the central nervous system, such as increase mental and/or physical alertness	Improve reaction time
Peptide hormones including erythropoietin/EPO	Drugs that causes other hormones to be produced	Increase muscles growth and aid recovery

Drug	Info
Nicotine	Nicotine is the addictive substance in tobacco smoke.
Marijuana	Cannabis is an illegal drug that can be smoked, producing feelings of well-being. But like tobacco it can cause lung cancer and bronchitis. Unlike tobacco, it can cause permanent damage to the mental health of its users.
Alcohol	Alcohol is addictive. Long-term effects of alcohol include damage to the liver and brain, and it is often the cause of weight gain.
Caffeine	Stimulants include caffeine - found in cola drinks and coffee, cannabis and amphetamines. They increase the transmission of signals from one nerve cell to the next. This increases alertness, heart rate and breathing rate.

Explain the impact of performance enhancing drugs on well-being and performance (i.e. potential benefits, side-effects, examples of athletes who may use them).

Drug	Benefit	Athletes that would use it	Side effects
Anabolic steroids	Increase muscles growth and aid recovery	Power Athletes – E.g. sprinters	Increase risk of heart attack, high blood pressure, liver disease, increase risk of muscle injury, infertility.
Beta blockers	Calm nerves	Darts players, Archers	Can reduce heart rate to a dangerous level
Diuretics	To mask other drugs	Anyone taking drugs, Boxers/Jockeys trying to lose weight	Dehydration, which can cause dizziness, muscle cramps, headaches and nausea. Long term effect such as kidney problems.
Narcotic analgesics	To train while injured	Anyone who is injured	Addictive
Stimulants	Improve reaction time	Sprinters, Goalkeepers, Boxers	Can cause heart failure, addictive
Peptide hormones including erythropoietin/EPO	Increase muscles growth and aid recovery	Any athlete trying to train more	EPO - risk of stroke or heart problems and HGH - abnormal growth, heart disease, diabetes, arthritis etc.

key concepts

Give reasons why some performers might risk taking performance-enhancing drugs.

Some people take drugs to enhance or improve their performance or encourage to do so by the coaches or fellow athletes.

Professionals who compete the highest levels can make lots of money. Some athletes might take drugs so they can compete at higher levels than they would otherwise have reached.

Another incentive is that the competitive life of a professional sportsman is comparatively short and so they may take drugs to prolong the career, in order to make more money.

This tangible incentive create a huge temptation for athletes complete faster stronger for longer and performance enhancing drugs can help them achieve this.

GO BACK TO TOPICS

Explain how the above conditions might affect physical activity.

Drug	Effect in sport	Why would you take them
Anabolic steroids	Increase Strengthen, Speed, Power	Increase muscles growth and aid recovery
Beta blockers	Increases focus	Calm nerves
Diuretics	Can mask other drugs from drug tests.	To mask other drugs
Narcotic analgesics	Can continue training even when injured, train for longer	To train while injured
Stimulants	React quicker, e.g. to the starting gun in 100m	Improve reaction time
Peptide hormones including erythropoietin/EPO	Increases size allows shorter rest periods between training.	Increase muscles growth and aid recovery

GO BACK TO TOPICS



Explain how the above conditions might affect physical activity.

1) WHY WOULD SOMEONE TAKE PEPTIDE HORMONES INCLUDING ERYTHROPOIETIN/EPO?

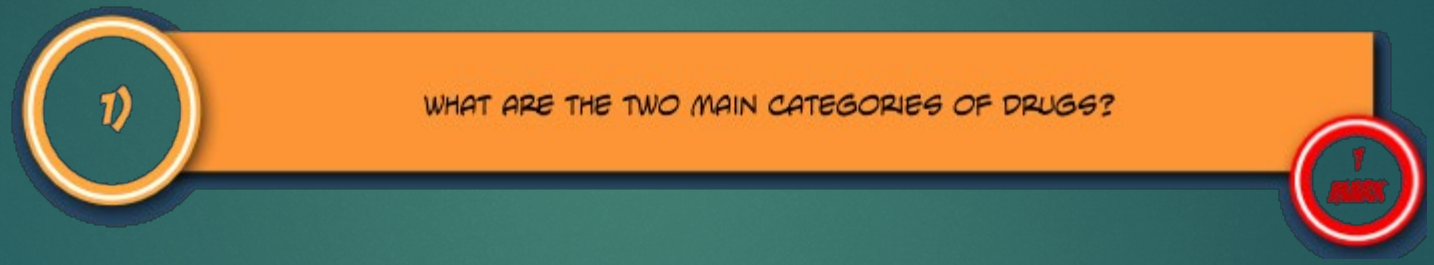
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SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).

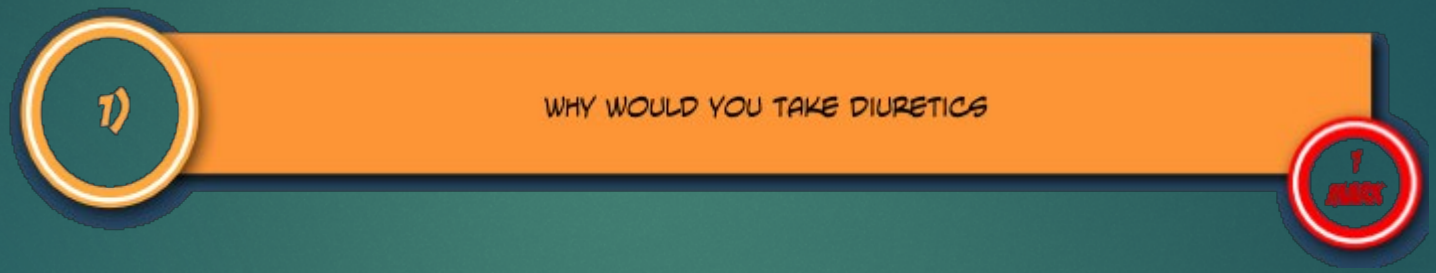








Explain the impact of performance enhancing drugs on well-being and performance (i.e. potential benefits, side-effects, examples of athletes who may use them).



SHOW ME THE ANSWERS

GO BACK TO TOPICS



Give reasons why some performers might risk taking performance-enhancing drugs.

1) NAME A TANGIBLE REASON AN ATHLETE MAY TAKE PERFORMANCE ENHANCING DRUGS?

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain how the above conditions might affect physical activity.

1) WHY WOULD SOMEONE TAKE PEPTIDE HORMONES INCLUDING ERYTHROPOIETIN/EPO?

1 mark

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain how the above conditions might affect physical activity.

1)

WHY WOULD SOMEONE TAKE
PEPTIDE HORMONES INCLUDING ERYTHROPOIETIN/EPO?

INCREASES SIZE ALLOWS SHORTER REST PERIODS BETWEEN TRAINING.

1 MARK

GO BACK TO TOPICS



Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).

1)

WHAT ARE THE TWO MAIN CATEGORIES OF DRUGS?

RECREATIONAL & PERFORMANCE ENHANCING

1 MARK

GO BACK TO TOPICS



Explain the impact of performance enhancing drugs on well-being and performance (i.e. potential benefits, side-effects, examples of athletes who may use them).

1)

WHY WOULD YOU TAKE DIURETICS?

TO MASK OTHER DRUGS

1 MARK

GO BACK TO TOPICS



Give reasons why some performers might risk taking performance-enhancing drugs.

1)

NAME A TANGIBLE REASON AN ATHLETE MAY TAKE PERFORMANCE ENHANCING DRUGS?

TROPHIES, MONEY, CONTRACTS

1 BACK

GO BACK TO TOPICS



Explain how the above conditions might affect physical activity.

1)

WHY WOULD SOMEONE TAKE
PEPTIDE HORMONES INCLUDING ERYTHROPOIETIN/EPO?

INCREASES SIZE ALLOWS SHORTER REST PERIODS BETWEEN TRAINING.

1 MARK

GO BACK TO TOPICS

Questions

Explain how the above conditions might affect physical activity.

An athlete is intending to cheat in order to raise their performance in the 100m, explain how they could do this through drug taking (6)

Show me the answers

Go back to topics

Questions

Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).

Explain which performance enhancing drugs the following athletes would be best suited to and why they would take them.







Show me the answers

Go back to topics

Questions

Explain the impact of performance enhancing drugs on well-being and performance

Show me the answers

Explain the impact of performance enhancing drugs on well-being and performance by filling in the below table

Drug	Benefit	Athletes that would use it	Side effects
Anabolic steroids		Power Athletes – E.g. sprinters	
		Darts players, Archers	
Diuretics		Anyone taking drugs, Boxers/Jockeys trying to lose weight	Dehydration, which can cause dizziness, muscle cramps, headaches and nausea. Long term effect such as kidney problems.
Narcotic analgesics	To train while injured	Anyone who is injured	Addictive
	Improve reaction time		Can cause heart failure, addictive
Peptide hormones including erythropoietin/EPO	Increase muscles growth and aid recovery		EPO - risk of stroke or heart problems and HGH - abnormal growth, heart disease, diabetes, arthritis etc.

Back to topics

Questions

Give reasons why some performers might risk taking performance-enhancing drugs.

Explain why some professional athletes may take performance enhancing drugs.

Give reference to tangible and intangible rewards

Show me the answers

Go back to topics

Questions

Explain how the above conditions might affect physical activity.

Fill in the below table

Drug	Effect in sport	Why would you take them
Anabolic steroids		
Beta blockers		
Diuretics		
Narcotic analgesics		
Stimulants		
Peptide hormones including erythropoietin/EPO		

Show me the answers

Go back to topics

6 MARK ANSWERS

Explain how the above conditions might affect physical activity.

An athlete is intending to cheat in order to raise their performance in the 100m, explain how they could do this through drug taking (6)

Use Anabolic Steroids to increase muscle mass to improve speed

Use Stimulants to increase awareness for sprint start

Narcotic Analgesics to recover quicker and be able to compete more quickly

Peptide Hormones to encourage muscle growth

GO BACK TO TOPICS

6 MARK ANSWERS

Identify the 2 types of drugs: recreational (smoking and alcohol) and performance enhancing (peptide hormones, anabolic steroids, narcotics/analgesics, stimulants, diuretics and beta blockers).

Explain which performance enhancing drugs the following athletes would be best suited to and why they would take them.

Archer - Beta Blockers
Sprinter - Anabolic steroids
Boxer Stimulants

Reasons why
Pressure from the media
Sponsorship
Rewards of success
Money
Wanting to be the best
Make headline news so they are well-known
World famous status to prepare for life after competing

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the impact of performance enhancing drugs on well-being and performance

Explain the impact of performance enhancing drugs on well-being and performance by filling in the below table

Drug	Benefit	Athletes that would use it	Side effects
Anabolic steroids	Increase muscles growth and aid recovery	Power Athletes – E.g. sprinters	Increase risk of heart attack, high blood pressure, liver disease, increase risk of muscle injury, infertility.
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BACK TO TOPICS

6 MARK ANSWERS

Give reasons why some performers might risk taking performance-enhancing drugs.

Some people take drugs to enhance or improve their performance or encourage to do so by the coaches or fellow athletes.

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GO BACK TO TOPICS

6 MARK ANSWERS

Explain how the above conditions might affect physical activity.

Fill in the below table

Drug	Effect in sport	Why would you take them
Anabolic steroids	Increase Strengthen, Speed, Power	Increase muscles growth and aid recovery
Beta blockers	Increases focus	Calm nerves
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Stimulants	React quicker, e.g. to the starting gun in 100m	Improve reaction time
Peptide hormones including erythropoietin/EPO	Increases size allows shorter rest periods between training.	Increase muscles growth and aid recovery

GO BACK TO TOPICS

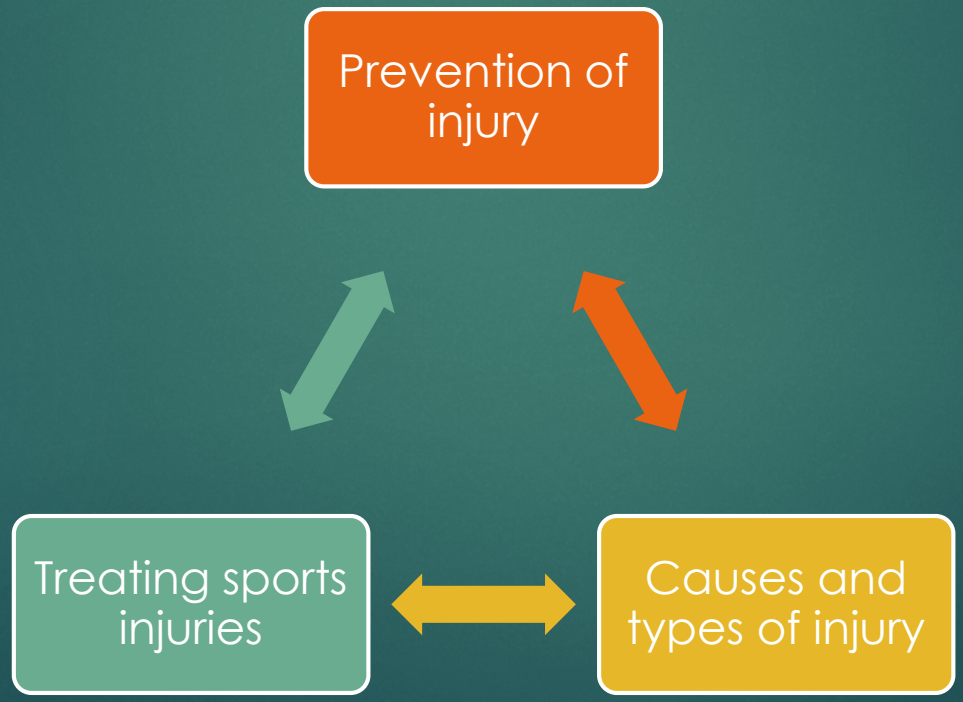


Topic 1.2.1: Physical activity and your healthy mind and body – Part 3

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions – on Physical activity and your healthy mind and body	6 Mark Questions Answers
Identify the risks associated with participation in physical activities.					
Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.					

Identify the risks associated with participation in physical activities.

There are 3 main areas within this section



Click on a section for more information

GO BACK TO TOPICS

Prevention of injury

When you take up a sport, there's always that worry you might hurt yourself. Some sporting activities, like white water rafting, are obviously more dangerous than others because factors including the environment, weather and the raft itself influence how safe you'll be.

Risk responsibility

The **authorities/NGB** are responsible for:

- The **rules** - to reduce dangerous play
- **Referees** - to check the environment and insist on fair play
- Insisting on **protective equipment** and removal of jewellery
- **Balancing competition** - by age, weight, gender, skill level



Playing by the rules reduces risk to yourself and others. Photo courtesy of BBC Sport

Each player is responsible for:

- Being **fit** enough
- Using correct **technique**
- Wearing the right **clothing** and equipment, e.g. making sure shoes fit correctly
- Checking that the **environment** is safe
- **Warming up** and **cooling down**
- **Etiquette** - playing fair and respecting their opponents

Playing by the rules

There are a number of reasons why players should play by the rules:

- It **reduces risk** to themselves and others.
- It stops the players being **penalised**. Giving away points, free shots, getting sent off or disqualified for breaking the rules does not help the player or the team.
- The sport cannot happen unless players cooperate with the opposition whilst competing.

Treating sports injuries



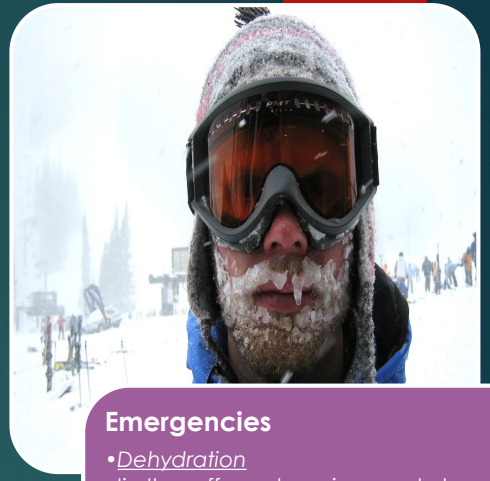
Bone and joint injuries - Assess injury by considering:

- **Fractures and dislocations**
- **Signs:**
- swelling
- unusual shape or deformity
- signs of shock (pale, clammy skin)
- **Symptoms of fractures/dislocations:**
- tenderness at the site (fracture)
- 'sickening' pain (dislocation)
- *Nausea*



Skin damage

- **Cuts** – dry the skin around the cut and cover with a clean dressing.
- **Grazes** – check for dirt within the graze. Cover with a specialist non-stick dressing.
- **Blisters** – do not break the blister. Cover it with a specialist plaster that stays in place until it falls off naturally. This eases pain and protects the area from further damage.



Emergencies

- *Dehydration*
- lie the sufferer down in a cool place
- raise and support legs
- give plenty of water
- *Hypothermia*
- move sufferer to a warmer, sheltered area
- provide extra clothing or a survival bag
- give warm drinks
- keep checking for pulse and breathing
- **Unconsciousness/Concussion** Follow the DRABC (Dr ABC) checklist

key concepts

Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.



GO BACK TO TOPICS



Identify the risks associated with participation in physical activities.

1) SUGGEST ONE WAY IN WHICH YOU CAN PREVENT AN INJURY

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.

1) SUGGEST ONE WAY IN WHICH YOU CAN PREVENT AN INJURY 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify the risks associated with participation in physical activities.

1)

SUGGEST ONE WAY IN WHICH YOU CAN PREVENT AN INJURY

ANY OF THE FOLLOWING

FOLLOWING CORRECT RULES
ENSURE HAVE REFEREES
PROTECTIVE EQUIPMENT
BALANCING COMPETITION
CORRECT TECHNIQUE
WARM UP
COOL DOWN

1 MARK





Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.





Questions

Identify the risks associated with participation in physical activities.

Describe two benefits of a cool down after physical activity. (2)

Show me the answers

Go back to topics

Questions

Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.

State 4 safety considerations a person may need to think about before taking part in a hockey match (4)

Show me the answers

Go back to topics

6 MARK ANSWERS

Identify the risks associated with participation in physical

Describe two benefits of a cool down after physical activity. (2)

slows down heart rate, stops build up of lactic acid, prevent cramp

GO BACK TO TOPICS

6 MARK ANSWERS

Explain how to reduce these risks, with special consideration to: warming up/cooling down; equipment and facilities; clothing; balanced competition; rules; readiness.

State 4 safety considerations a person may need to think about before taking part in a hockey match (4)

Any of the following

State of the pitch,
if goalkeeper then padding,
shin pads,
mouth guard,
stick in good condition,
correct footwear etc..

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.2.2: A healthy, active lifestyle and your cardiovascular system

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - A healthy, active lifestyle and your cardiovascular system	6 Mark Questions Answers
Identify and explain the immediate and short-term effects of participation in physical activity on the CV system (increased HR; systolic/diastolic BP; increased BP).					
Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).					
Understand the importance of rest and recovery time.					
Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).					
Identify the effects of recreational drugs on the CV system.					

key concepts

Identify and explain the immediate and short-term effects of participation in physical activity on the CV system (increased HR; systolic/diastolic BP; increased BP).

Immediate effect	Benefit
Increased heart rate	Increase in oxygenated blood to the working muscles
Increase blood pressure	Increase the rate in which blood is transported and lactic acid is removed
Blood temperature rises.	Blood vessels near skin open to allow heat to be lost.
Blood diverted to muscles	it is diverted from the digestive system to the muscles.

GO BACK TO TOPICS

key concepts

Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).

Long term effect	Benefit
Decreased resting heart rate	quicker recovery from exercise.
Increased Heart recover rate	quicker recovery from exercise.
Increased stroke volume	More oxygenated blood can be pumped per beat
Increased Cardiac output	More blood pump around the body
Increased number of capillaries in muscles.	
Increased volume of blood and red blood cells.	

GO BACK TO TOPICS

Understand the importance of rest and recovery time.



Rest must be included in a personal exercise programme to allow time for recovery and adaptations to take place



Example someone training five times a week would probably be training in 3 days and resting two to allow adaptation to take place



Example,

Day 1: Training

Day 2: Rest

Day 3: Training

Day 4: Rest

Day 5: Training

GO BACK TO TOPICS

Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).

Cholesterol is a substance found in the blood. It is made in the liver and is needed for healthy cell membranes. However, too much cholesterol in the blood increases the risk of heart disease, and of diseased arteries.

Good and bad cholesterol

The bloodstream transports cholesterol around the body attached to *proteins*. The combination of cholesterol and protein is called **lipoprotein**, and there are two types.

1. **Low-density lipoproteins** - LDLs - carry cholesterol from the liver to the cells.
2. **High-density lipoproteins** - HDLs - carry excess cholesterol back to the liver.

LDLs are often called 'bad' cholesterol because they lead to fat building up on artery walls, which causes heart disease. HDLs are often called 'good' cholesterol because they help to stop fat building up in the arteries.

Improving the balance

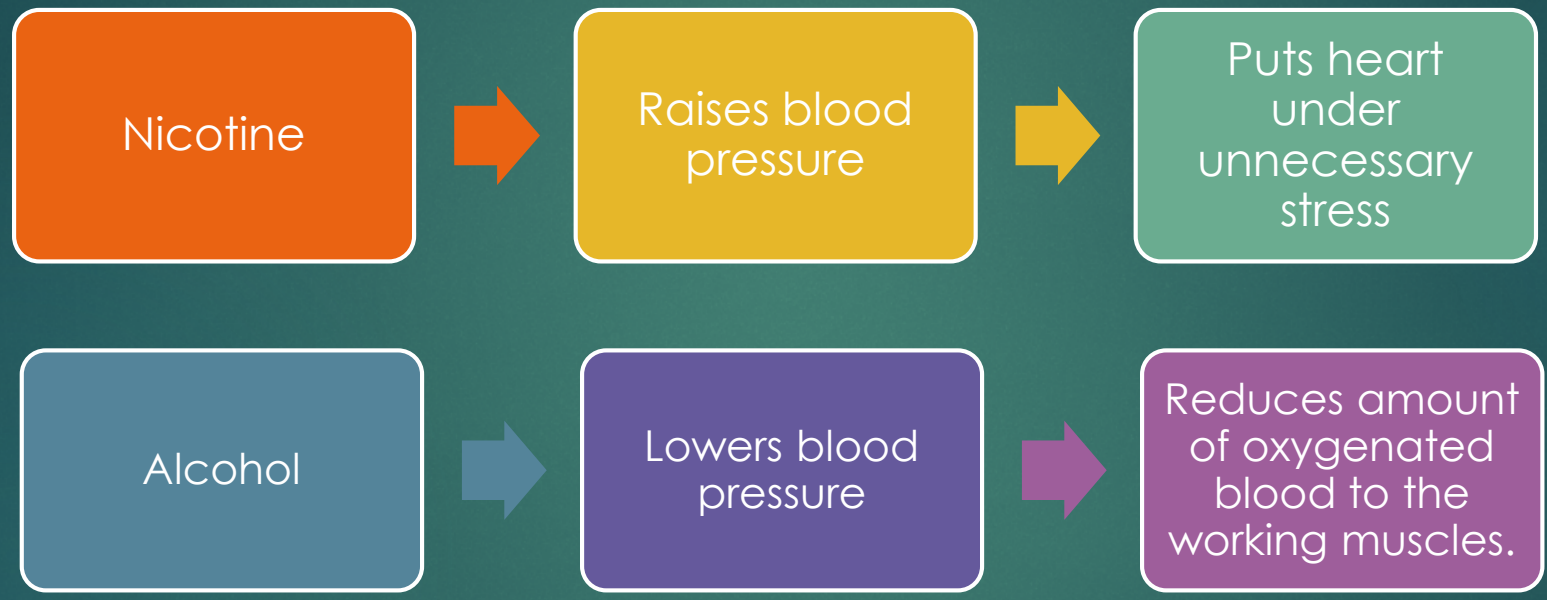
A high proportion of HDLs to LDLs is good for a healthy heart. Monounsaturated and polyunsaturated oils - as found in vegetable oils - help to reduce cholesterol levels in the blood, and also increase the proportion of HDLs compared with LDLs. Check your understanding of such oils by looking at Vegetable oils.

There are also drugs that can improve high blood pressure and high cholesterol levels.

GO BACK TO TOPICS

key concepts

Identify the effects of recreational drugs on the CV system.



GO BACK TO TOPICS



Identify and explain the immediate and short-term effects of participation in physical activity on the CV system (increased HR; systolic/diastolic BP; increased BP).

1) NAME 2 EFFECTS EXERCISE HAS ON THE CV SYSTEM

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).

1) NAME 2 LONG TERM EFFECTS EXERCISE HAS ON THE CV SYSTEM

2 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand the importance of rest and recovery time.

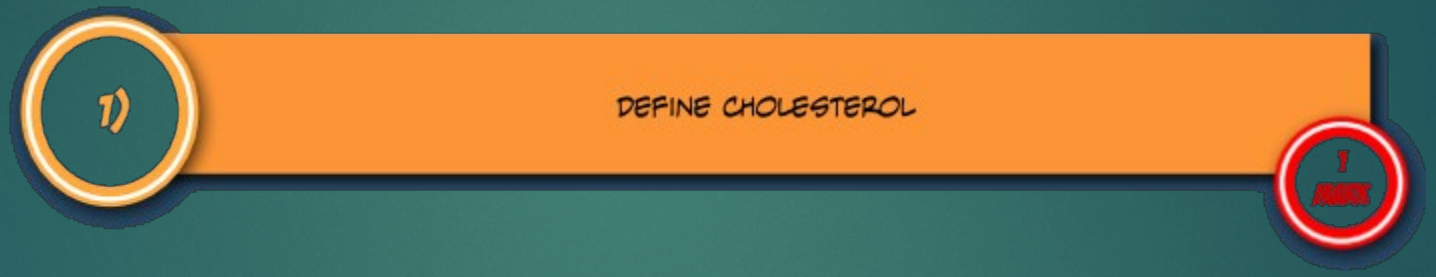
1) WHY DO YOU NEED TO INCLUDE REST IN A TRAINING PROGRAMME? 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).









Identify the effects of recreational drugs on the CV system.

1) WHAT DOES NICOTINE DO TO THE CV SYSTEM?

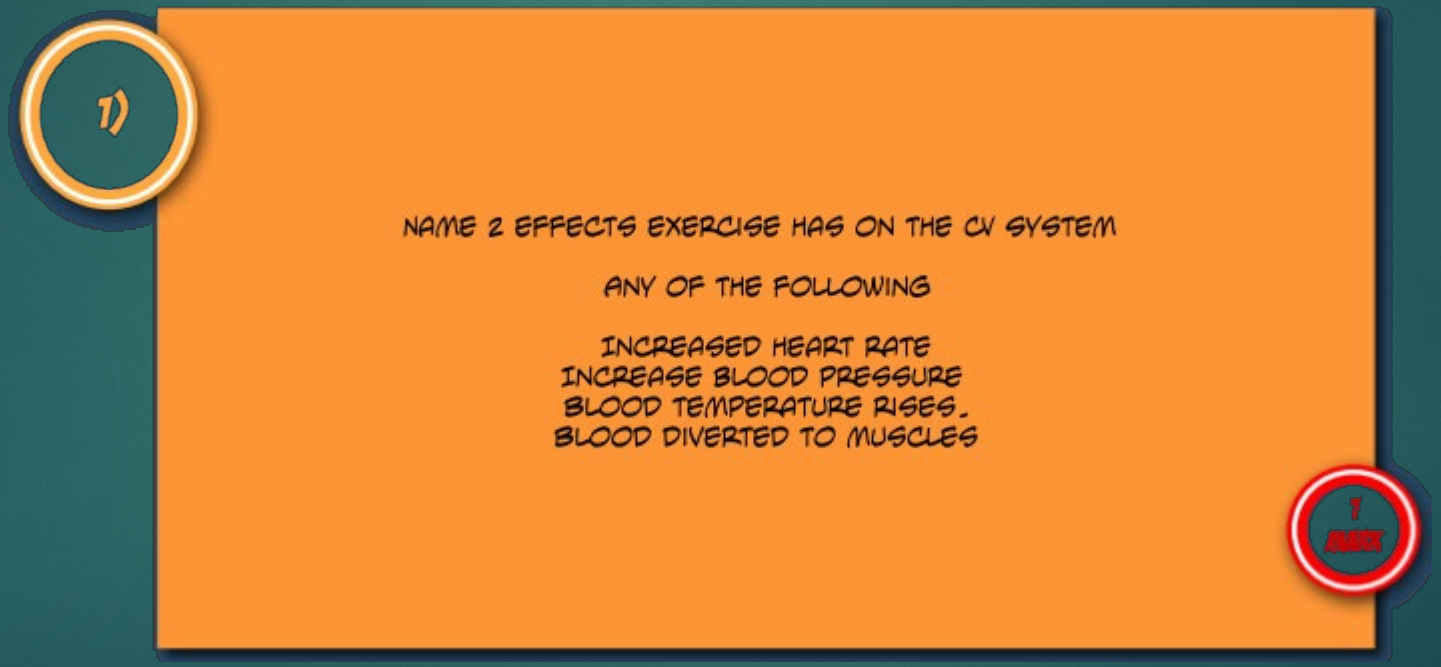
1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify and explain the immediate and short-term effects of participation in physical activity on the CV system (increased HR; systolic/diastolic BP; increased BP).







Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).

1)

NAME 2 LONG TERM EFFECTS EXERCISE HAS ON THE CV SYSTEM

ANY OF THE FOLLOWING

DECREASED RESTING HEART RATE
INCREASED HEART RECOVER RATE
INCREASED STROKE VOLUME
INCREASED CARDIAC OUTPUT
INCREASED NUMBER OF CAPILLARIES IN MUSCLES.
INCREASED VOLUME OF BLOOD AND RED BLOOD CELLS.

2 MARK





Understand the importance of rest and recovery time.

1)

WHY DO YOU NEED TO INCLUDE REST IN A TRAINING PROGRAMME?

TO ALLOW ADAPTATIONS TO TAKE PLACE

1 MARK

GO BACK TO TOPICS



Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).

1)

DEFINE CHOLESTEROL

CHOLESTEROL IS A SUBSTANCE FOUND IN THE BLOOD. IT IS MADE IN THE LIVER AND IS NEEDED FOR HEALTHY CELL MEMBRANES. HOWEVER, TOO MUCH CHOLESTEROL IN THE BLOOD INCREASES THE RISK OF HEART DISEASE, AND OF DISEASED ARTERIES.

1 MARK

GO BACK TO TOPICS



Identify the effects of recreational drugs on the CV system.

1)

WHAT DOES NICOTINE DO TO THE CV SYSTEM?

RAISES BLOOD PRESSURE

1 MARK

GO BACK TO TOPICS

Questions

Identify and explain the immediate and short-term effects of participation in physical activity on the CV system (increased HR; systolic/diastolic BP; increased BP).

Describe and explain, using examples, both the immediate effects, and the long term effects of regular exercise on the cardiovascular system.

Show me the answers

Go back to topics

Questions

Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).

Describe 2 long term effects of exercise on the Circulatory System (2)

SHOW ME THE ANSWERS

GO BACK TO TOPICS

Questions

Understand the importance of rest and recovery time.

Explain the immediate effects of exercise on the Circulatory System (6)

Show me the answers

Go back to topics

Questions

Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).

How can a healthy, balanced diet have an effect on your Cardiovascular System (2)

Show me the answers

Go back to topics

Questions

Identify the effects of recreational drugs on the CV system.

How do recreational drugs affect blood pressure? (2)

Show me the answers

Go back to topics

6 MARK ANSWERS

Explain what makes up a HAL

Describe and explain, using examples, both the immediate effects, and the long term effects of regular exercise on the cardiovascular system.

Any of the following

Immediate effects to include;

Increased Heart Rate (example of resting HR – 60-80bpm).
Increased Blood pressure as greater amounts of blood is pumped around the body, increasing the pressure on the blood vessels.
Breathing becomes faster and deeper.
Body temperature increases.
Sweating occurs and requires fluids.
Muscles begin to ache.

Long term effects to include;

Decreased resting heart rate
Decrease in Heart's recovery rate.
Increased Stoke Volume.
Cardiac Output can increase (CO = SV x HR).
Reduced blood pressure.
Greater number of capillaries and blood vessels become more flexible and efficient.
Knowledge and understanding of reasons why should be shown and examples used where appropriate.

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the effects of regular and long-term participation in exercise on the CV system (decreased resting HR, recovery rate, increased stroke volume, cardiac output, BP, healthy veins and arteries).

Describe 2 long term effects of exercise on the Circulatory System (2)

Any of the following:

Helps strengthen the heart, cardiac hypertrophy, walls thicker, stroke volume increase, cardiac output increase

GO BACK TO TOPICS

6 MARK ANSWERS

Understand the importance of rest and recovery time.

Explain the immediate effects of exercise on the Circulatory System (6)

Any of the following

- Heart rate increases to deliver more oxygen to working muscles,
- blood pressure increases,
- blood shunted to working muscles,
- blood vessels dilate at skin surface causing reddening,
- arteries widen to let blood through,
- sv increase, co increase

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the impact of diet on the CV system, in particular how it effects BP and cholesterol (LDL and HDL).

How can a healthy, balanced diet have an effect on your Cardiovascular System (2)

Any of the following:

Low fat, salt and sugar but high in fruit and vegetables can reduce blood pressure, reduced fats, and salt can reduce cholesterol levels

GO BACK TO TOPICS

6 MARK ANSWERS

Identify the effects of recreational drugs on the CV system.

How do recreational drugs affect blood pressure? (2)

Any of the following
Smoking makes blood vessels contract, chemicals in alcohol cause blood vessels to tighten

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.2.3: A healthy, active lifestyle and your respiratory system

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on A healthy, active lifestyle and your respiratory system	6 Mark Questions Answers
Understand the main function of the respiratory system and respiration.					
Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).					
Identify and explain the effects of regular and long-term participation in exercise on the respiratory system (better delivery of O2 and removal of CO2 to/from the working muscles, increased lung volumes, increased number of alveoli, increased number of blood vessels).					
Key terms of the respiratory system and respiration.					

key concepts

Understand the main function of the respiratory system and respiration.



GO BACK TO TOPICS

key concepts

Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).

Immediate effects when first exercising:

- Increased rate of breathing
- Increased depth of breathing – rise in *tidal volume*

Effects of regular training:

- Increased strength of *diaphragm* and *intercostal muscles*.
- Greater number of *alveoli*.
- Increased ability of the lungs to extract oxygen from the air.
- Increased *vital capacity*.
- Increased amount of oxygen delivered to, and carbon dioxide removed from, the body.

GO BACK TO TOPICS

key concepts

Identify and explain the effects of regular and long-term participation in exercise on the respiratory system

Regular training can effect the respiratory system in the following ways

Better delivery of O2 and removal of CO2 to/from the working muscles,

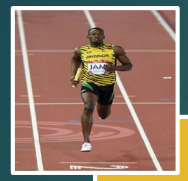
Increased lung volumes,

Increased number of alveoli,

Increased number of blood vessels

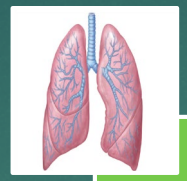
GO BACK TO TOPICS

Key terms of the respiratory system and respiration.



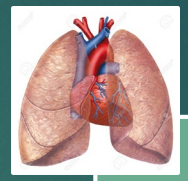
Oxygen Debt

- The extra oxygen consumed during recovery from a period of strenuous physical activity, compared with the amount which would usually have been consumed over the same length of time



Tidal volume

- The amount of air inspired and expired with each normal breath at rest or during exercise



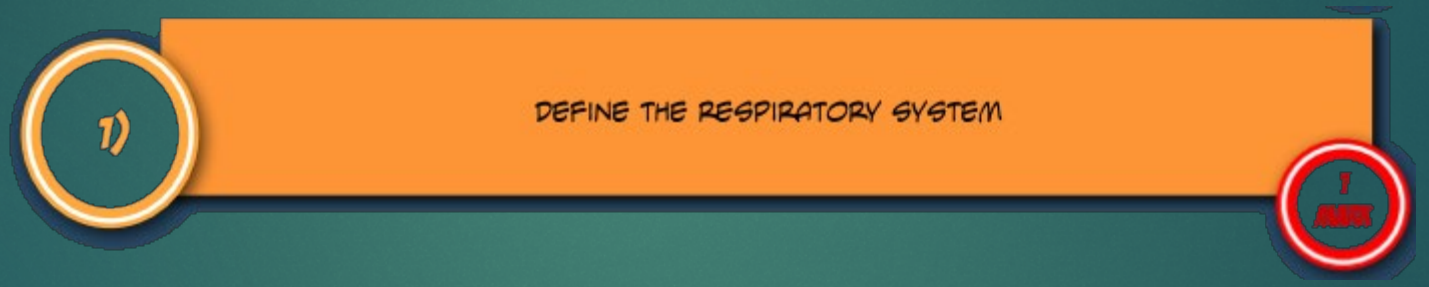
Vital capacity

- The greatest amount of air that can be made to pass into and out of the lungs by the most forceful inspiration and expiration.
- Normally this is about 4-5 litres

GO BACK TO TOPICS



Understand the main function of the respiratory system and respiration.

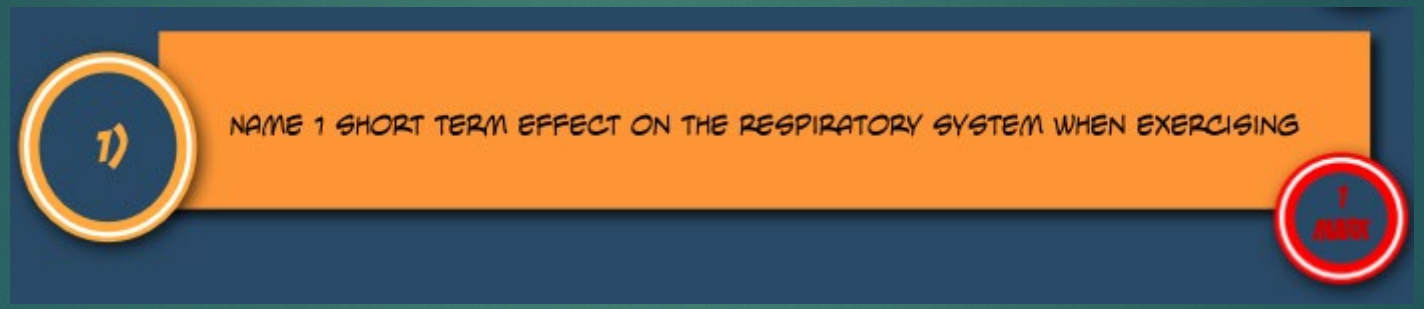








Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).

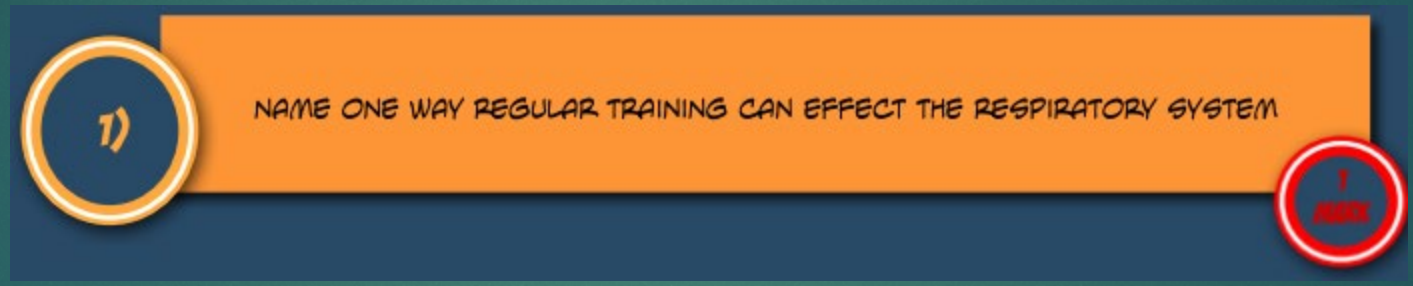








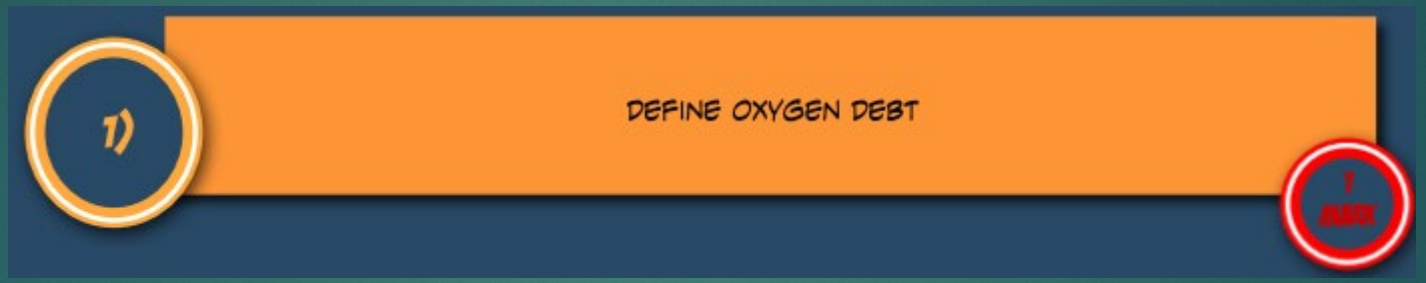
Identify and explain the effects of regular and long-term participation in exercise on the respiratory system (better delivery of O2 and removal of CO2 to/from the working muscles, increased lung volumes, increased number of alveoli, increased number of blood vessels).







Understand the main function of the respiratory system and respiration.





Understand the main function of the respiratory system and respiration.

1)

DEFINE THE RESPIRATORY SYSTEM

THE RESPIRATORY SYSTEM IS THE SET OF ORGANS THAT ALLOWS A PERSON TO BREATHE AND EXCHANGE OXYGEN AND CARBON DIOXIDE THROUGHOUT THE BODY.

1 MARK





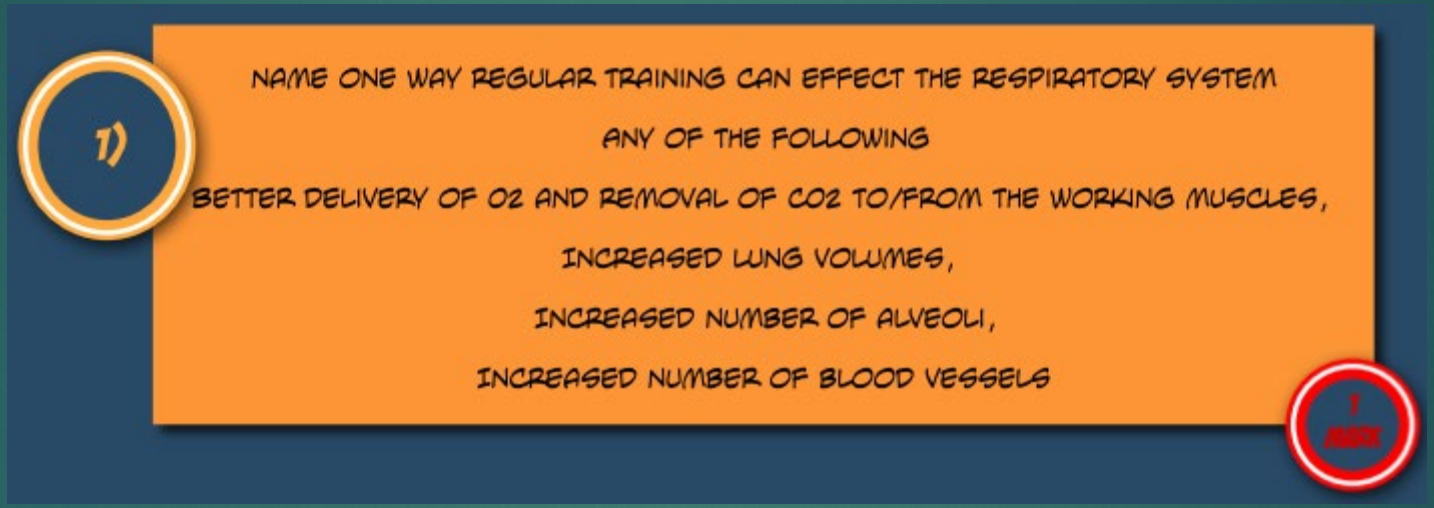
Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).







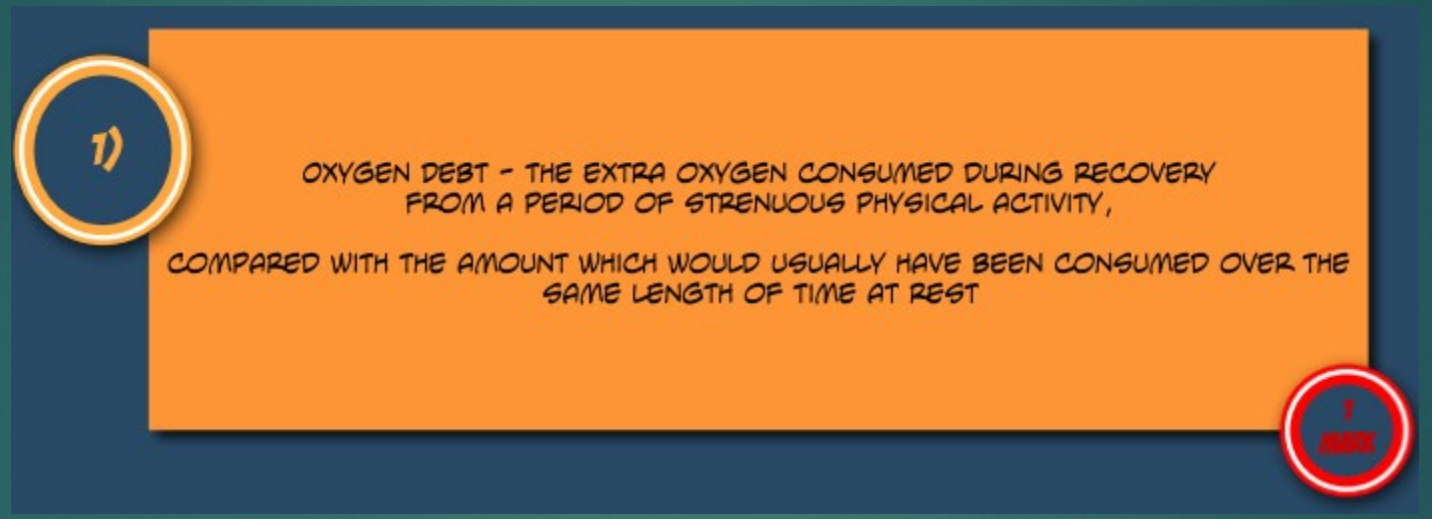
Identify and explain the effects of regular and long-term participation in exercise on the respiratory system (better delivery of O2 and removal of CO2 to/from the working muscles, increased lung volumes, increased number of alveoli, increased number of blood vessels).







Key terms of the respiratory system and respiration.





Questions

Understand the main function of the respiratory system and respiration.

The Respiratory System is made up of different parts each having a specific function.

Please complete the table below (4)

Part	Function
Trachea	
	Protective cage around the organs in the chest, these protect the lungs
Bronchi	
	Where gaseous exchange takes place

Show me the answers

Go back to topics

Questions

Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).

Describe 2 long term effects of exercise on the Respiratory System (2)

Show me the answers

Go back to topics

Questions

Identify and explain the effects of regular and long-term participation in exercise on the respiratory system

Explain the immediate effects of exercise on the Respiratory System (6)

Show me the answers

Go back to topics

Questions

Key terms of the respiratory system and respiration.

Describe oxygen debt, how it can occur and state what the body's response to it is (4)

Show me the answers

Go back to topics

6 MARK ANSWERS

Understand the main function of the respiratory system and respiration.

The Respiratory System is made up of different parts each having a specific function.

Please complete the table below (4)

Part	Function
Trachea	Allows Air To Travel To Bronchi
Ribs	Protective cage around the organs in the chest, these protect the lungs
Bronchi	Takes Air To Bronchioles
Alveoli	Where gaseous exchange takes place

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the immediate and short-term effects of participation in physical activity on the respiratory system (increased breathing rate; oxygen debt).

Describe 2 long term effects of exercise on the Respiratory System (2)

Any of the following:
Diaphragm and intercostal muscles strengthen, gaseous exchange more efficient, increase vc, more o2 to working muscles

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the effects of regular and long-term participation in exercise on the respiratory system (better delivery of O2 and removal of CO2 to/from the working muscles, increased lung volumes, increased number of alveoli, increased number of blood vessels).

. Explain the immediate effects of exercise on the Respiratory System (6)

Any of the following:

Tidal volume increases, reduces build up of co2, breathing rate increases, breathing shallow to repay o2 debt, waste water released, energy released

GO BACK TO TOPICS

6 MARK ANSWERS

Key terms of the respiratory system and respiration.

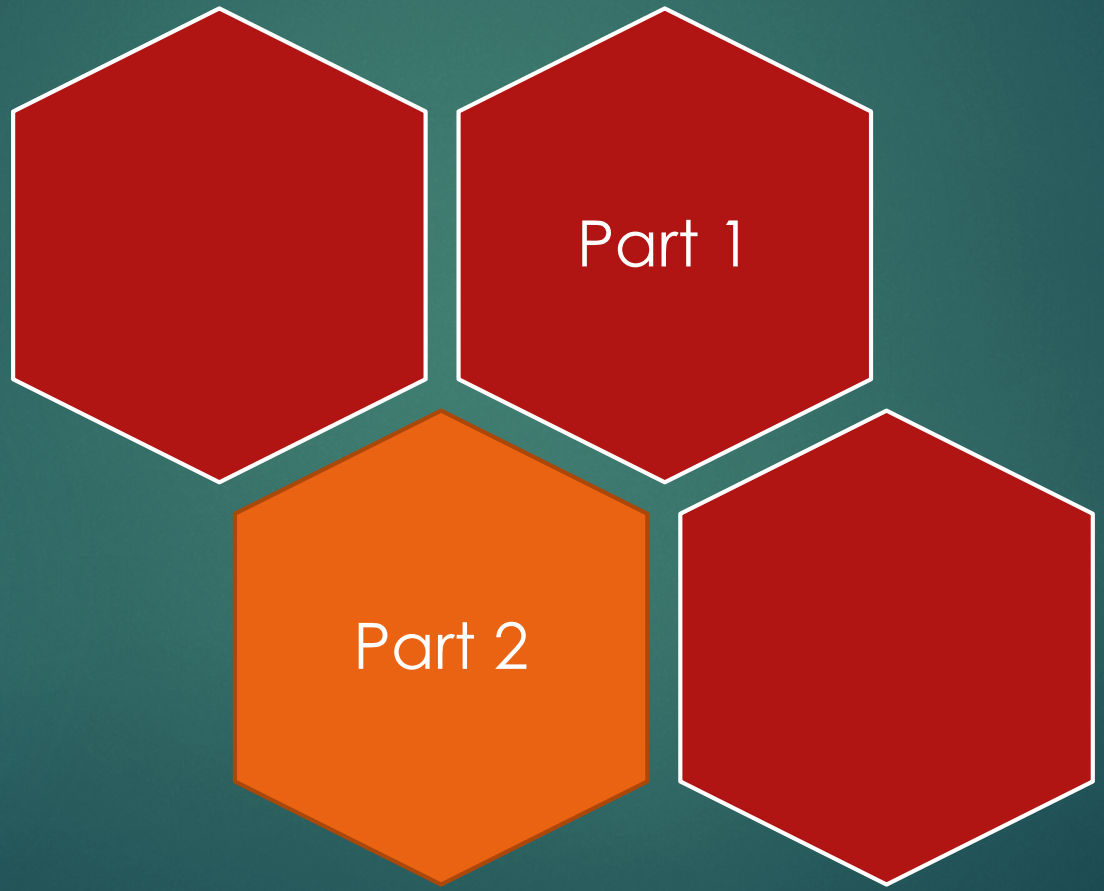
Describe oxygen debt, how it can occur and state what the body's response to it is (4)

The body needs more oxygen than it can get, can occur when high level of activity occurs, breathing rate increases and becomes deeper to repay it.

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.2.4: A healthy, active lifestyle and your muscular system



GO TO PART 1,2,3

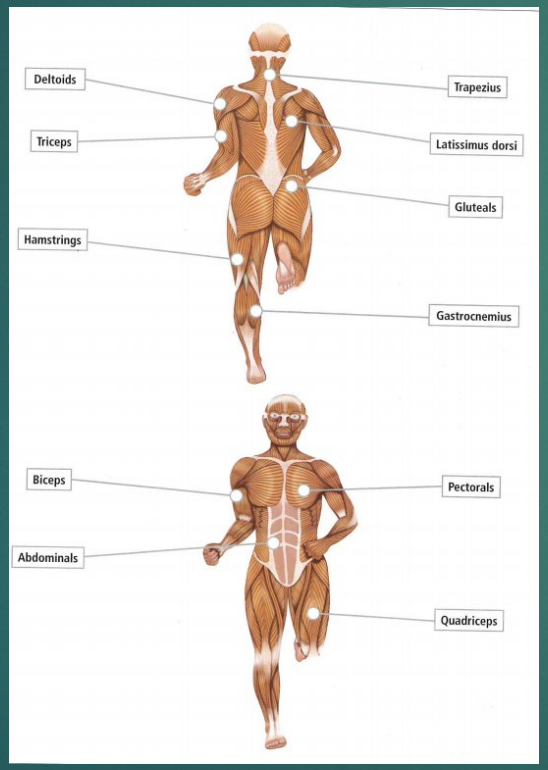
Topic 1.2.4: A healthy, active lifestyle and your muscular system – Part 1

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on A healthy, active lifestyle and your muscular system	6 Mark Questions Answers
Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).				Questions	
Understand which physical activities benefit the major muscle groups.				Questions	
Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)				Questions	
Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.				Questions	
Identify and explain the effects of regular and long-term participation in exercise on the muscular system.				Questions	

key concepts

Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).

There are 11 specific muscles you need to know for your exam



Name of muscle	Function	Example in sport
Triceps	Extend the arm at the elbow	Press-up, throwing a javelin
Biceps	Flex the arm at the elbow	Pull-up, drawing a bow in archery
Deltoids	Move the arm in all directions at the shoulder	Bowling a cricket ball
Pectorals	Adduct the arm at the shoulder	Forehand drive in tennis
Trapezius	Hold the shoulders in place, move head back and sideways	Holding head up in rugby scrum
Gluteals	Adduct and extend leg at the hips	Pulling back leg before kicking a ball
Quadriceps	Extend the leg at the knee	Kicking a ball jumping upwards
Hamstrings	Flex the leg at the knee	Bending knee before kicking a ball
Gastrocnemius	Pointing the toes, help to flex the knee	Running
Latissimus dorsi	Adduct and extend the arm at the shoulder	Butterfly stroke in swimming
Abdominals	Flex the trunk across the stomach	Pulling the body down when hurdling

Click to enlarge

GO BACK TO TOPICS

Understand which physical activities benefit the major muscle groups.

Muscle	Location	Physical activity that would improve it
Deltoid	Shoulder	Bent over row, Military press
Trapezius	Back of Neck	Rowing , shoulder shrugs
Latissimus Dorsi	Back near shoulder blade	Lat-pull downs, pull ups
Pectorals	Chest	Bench press
Biceps	Front Upper arm	Bicep curls
Triceps	Back upper arm	Chin ups, triceps dips
Gluteals	Bum	Squats, Leg press, Lunges
Quadriceps	Front upper leg	Squats, Leg press, Lunges
Hamstring	Back upper leg	Squats, Leg press, Lunges
Gastrocnemius	Back lower leg (calf)	Calf raises

GO BACK TO TOPICS

Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)



Antagonistic pairs
(click for more info)

Which muscle allows what movement
(click for more info)

GO BACK TO TOPICS

Antagonistic pairs

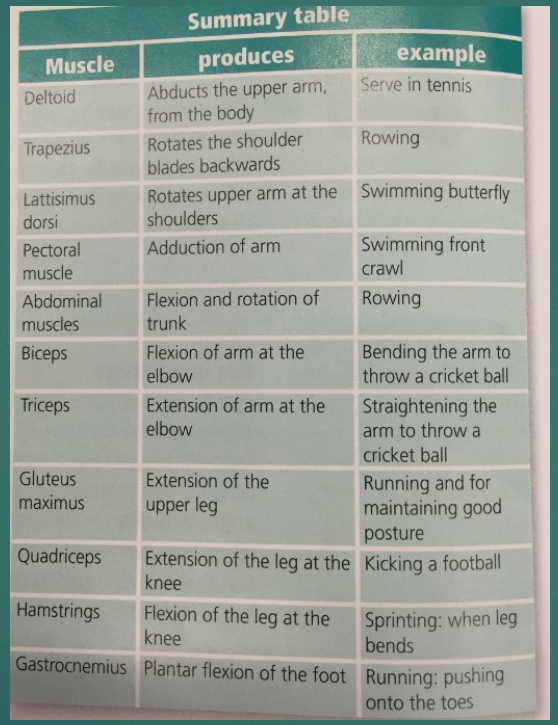
Antagonistic pairs of muscles create movement when one (the **prime mover**) contracts and the other (the **antagonist**) relaxes. Examples of antagonistic pairs working are:

the quadriceps and hamstrings in the leg

the biceps and triceps in the arm

GO BACK TO TOPICS

Which muscle allows what movement



Summary table

Muscle	produces	example
Deltoid	Abducts the upper arm, from the body	Serve in tennis
Trapezius	Rotates the shoulder blades backwards	Rowing
Lattisimus dorsi	Rotates upper arm at the shoulders	Swimming butterfly
Pectoral muscle	Adduction of arm	Swimming front crawl
Abdominal muscles	Flexion and rotation of trunk	Rowing
Biceps	Flexion of arm at the elbow	Bending the arm to throw a cricket ball
Triceps	Extension of arm at the elbow	Straightening the arm to throw a cricket ball
Gluteus maximus	Extension of the upper leg	Running and for maintaining good posture
Quadriceps	Extension of the leg at the knee	Kicking a football
Hamstrings	Flexion of the leg at the knee	Sprinting: when leg bends
Gastrocnemius	Plantar flexion of the foot	Running: pushing onto the toes

Click to enlarge

GO BACK TO TOPICS



Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.

Immediate effects when first exercising:

- Muscles contract more often
- Blood flow to muscles increases
- Muscle temperature rises
- Increase demand for oxygen to the working muscles
- Lactic acid begins to build up
- Little effect on bones and joints

GO BACK TO TOPICS



Identify and explain the effects of regular and long-term participation in exercise on the muscular system.

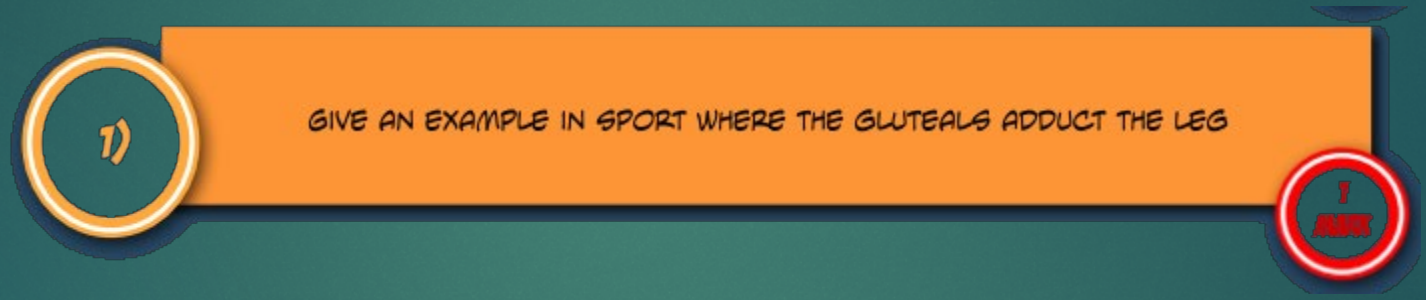
Long term effects of exercising:

- Muscles increase in size (hypertrophy)
- Muscular endurance improves
- Muscles, tendons and ligaments around joints get stronger
- Joints become more stable and flexibility at joints increases
- Bone width and density increases

GO BACK TO TOPICS



Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).









Understand which physical activities benefit the major muscle groups.

1) NAME A PHYSICAL ACTIVITY THAT WOULD IMPROVE THE PECTORALS

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS

Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)

1) NAME THE ANTAGONISTIC PAIR IN THE ARM

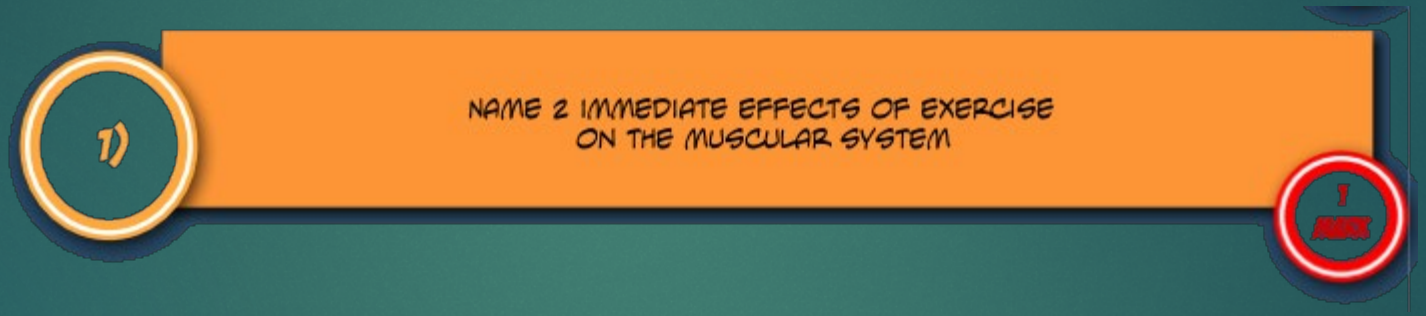
1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.

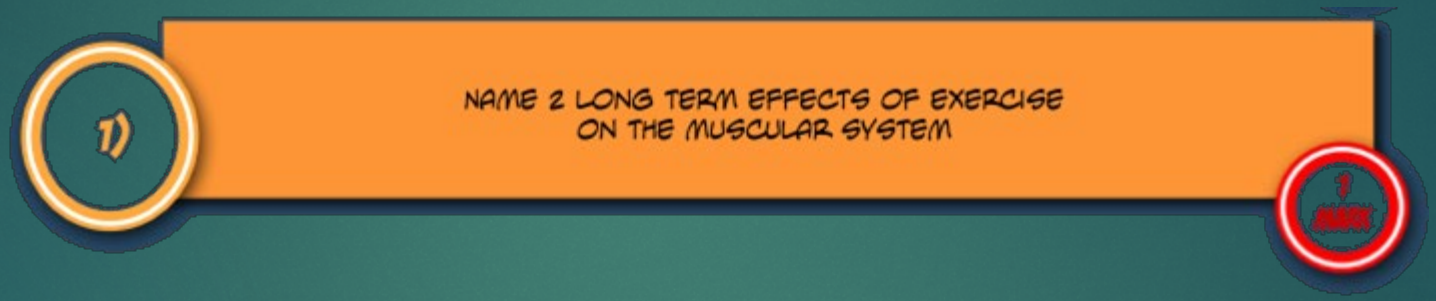


SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify and explain the effects of regular and long-term participation in exercise on the muscular system.









Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).

1)

GIVE AN EXAMPLE IN SPORT WHERE THE GLUTEALS ADDUCT THE LEG

PULLING THE LEG BACK BEFORE KICKING A FOOTBALL

1 MARK

GO BACK TO TOPICS



Understand which physical activities benefit the major muscle groups.

1)

NAME A PHYSICAL ACTIVITY THAT WOULD IMPROVE THE PECTORALS

BENCH PRESS

1 MARK





Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)

1)

NAME THE ANTAGONISTIC PAIR IN THE ARM

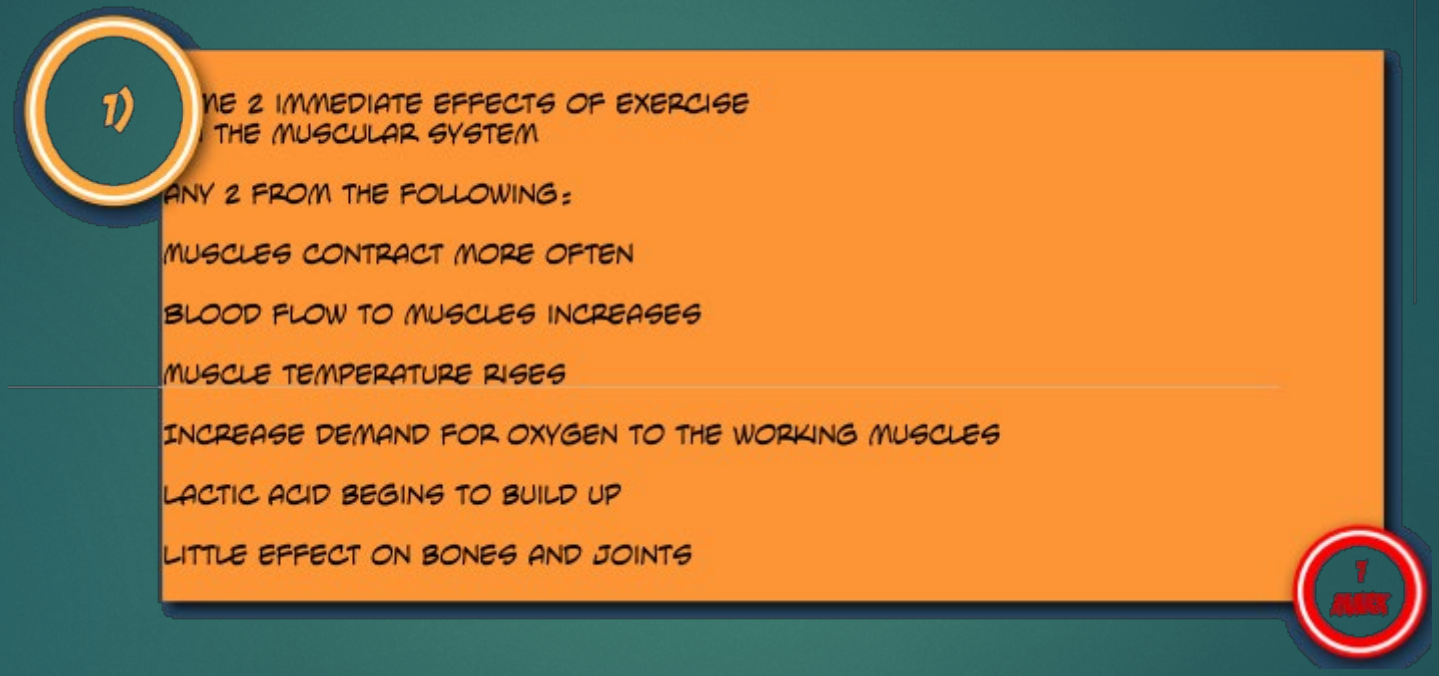
THE BICEPS AND TRICEPS

1 mark

GO BACK TO TOPICS

Time for Answers

Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.



GO BACK TO TOPICS



Identify and explain the effects of regular and long-term participation in exercise on the muscular system.

1)

NAME 2 IMMEDIATE EFFECTS OF EXERCISE ON THE MUSCULAR SYSTEM

ANY 2 FROM THE FOLLOWING:

MUSCLES INCREASE IN SIZE (HYPERTROPHY)

MUSCULAR ENDURANCE IMPROVES

MUSCLES, TENDONS AND LIGAMENTS AROUND JOINTS GET STRONGER

JOINTS BECOME MORE STABLE AND FLEXIBILITY AT JOINTS INCREASES

BONE WIDTH AND DENSITY INCREASES

1 MARK



Questions

Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).

Explain the immediate effects of exercise on the Muscular System (6)

Show me the answers

Go back to topics

Questions

Understand which physical activities benefit the major muscle groups.

. Describe 2 long term effects of exercise on the Muscular System (2)

Show me the answers

Go back to topics

Questions

Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)

Describe what is happening during a bicep curl in the flexion stage with reference to the muscles (6)

Show me the answers

Go back to topics

Questions

Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.

How can a healthy, balanced diet have an effect on your Muscular System (2)

Show me the answers

Go back to topics

Questions

Identify and explain the effects of regular and long-term participation in exercise on the muscular system.

Describe atrophy and suggest why it would happen?

Show me the answers

Go back to topics

6 MARK ANSWERS

Identify the major muscle groups (deltoid, trapezius, latissimus dorsi, pectorals, abdominals, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius).

Explain the immediate effects of exercise on the Muscular System (6)

Any of the following:

Working muscles produce heat, muscle contract and relax, ache in muscles, demand for more oxygen, build up of lactic acid, blood shunted to working muscles, cardiac muscles work harder, muscles fatigue

GO BACK TO TOPICS

6 MARK ANSWERS

Understand which physical activities benefit the major muscle groups.

Describe 2 long term effects of exercise on the Muscular System (2)

Any of the following

Hypertrophy, Increase muscle size, Increase muscular endurance, Increase muscular strength

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the role of muscles in movement (i.e. antagonist, agonist, the role of each muscle group)

Describe what is happening during a bicep curl in the flexion stage with reference to the muscles (6)

Marks for the following points

Bicep contracts is prime mover, shortens, is agonist, origin is shoulder, insertion is radius
Triceps relaxes, lengthens, is antagonist, origin is shoulder, insertion is ulna,
Isotonic contraction

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the immediate and short-term effects of participation in exercise on the muscular system.

How can a healthy, balanced diet have an effect on your Muscular System (2)

Proteins repair tissue, Protein build body cells, Proteins build muscle mass

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the effects of regular and long-term participation in exercise on the muscular system.

Describe atrophy and suggest why it would happen?

Muscle reduce in size and strength after injury or lack of exercise

GO BACK TO TOPICS

GO TO PART 1,2,3

Topic 1.2.4: A healthy, active lifestyle and your muscular system – Part 2

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on A healthy, active lifestyle and your muscular system	6 Mark Questions Answers
Understand the potential for injuries such as strains and muscle atrophy.					
Identify the common treatments for injuries (RICE)					
Understand the need for rest.					
Understand the effect of the diet on the muscular system.					

Understand the potential for injuries such as strains and muscle atrophy.

Injuries occur in two ways; externally or internally.





External Force

- Impact injuries are common in invasion sports
- Impact with someone (tackle, collision, punch, kick) or something (landing hard, running into a post). These cause bruises, sprains, fractures, dislocations or concussion.
- The environment – very hot or cold conditions. Heat causes dehydration. Cold causes hypothermia.

Internal Force

- Very sudden, powerful movements can tear or strain muscles and tendons.

GO BACK TO TOPICS

Identify the common treatments for injuries (RICE)

Rest.

Stop activity to prevent further injury.

Ice.

Apply an ice pack to reduce blood flow, pain and swelling.

Compression.

Wrap a bandage tightly around the area to reduce internal bleeding and swelling.

Elevation.

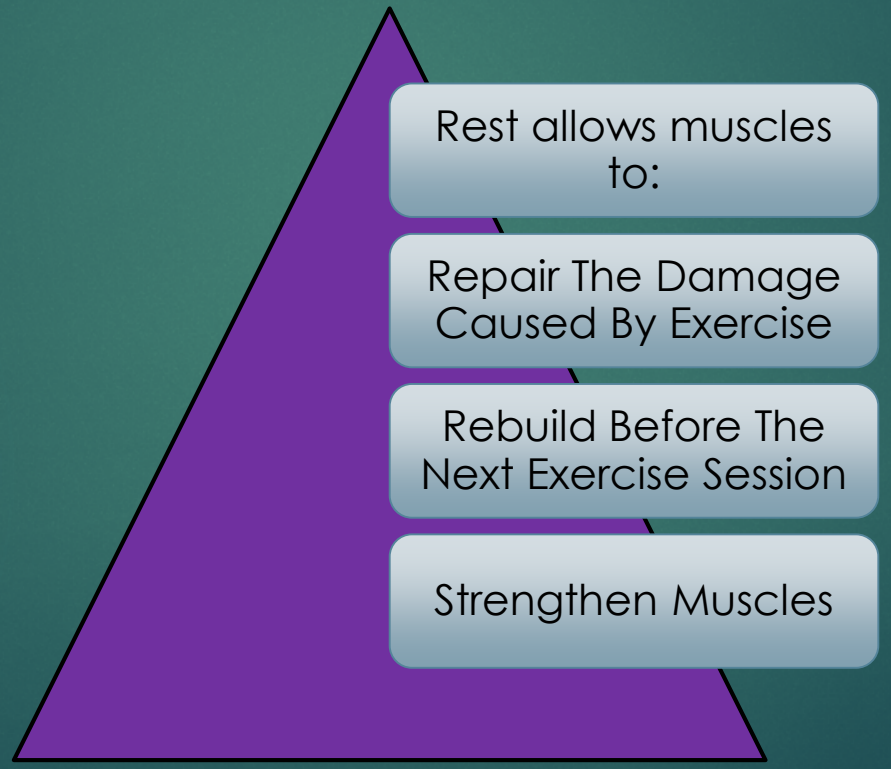
Raise the injury above heart level to reduce swelling and throbbing.

RICE treatment is used for strains, sprains and bruises.

GO BACK TO TOPICS

Understand the need for rest.

Rest (recovery) – It is important to have rest in your training to allow your body to recover. This could include rest between sets or complete rest days.



GO BACK TO TOPICS

Understand the effect of the diet on the muscular system.

Proper diet is another important part of the recovery process.

Energy stores need to be replenished soon after exercise with carbohydrates of fluids.

The muscular system to recover it is essential to have adequate amounts of protein in the diet, this helps muscles to build and repair preventing atrophy.

It is also important to eat within 2 hours of stopping exercise; eating after a long interval is not as beneficial.

GO BACK TO TOPICS



Understand the potential for injuries such as strains and muscle atrophy.

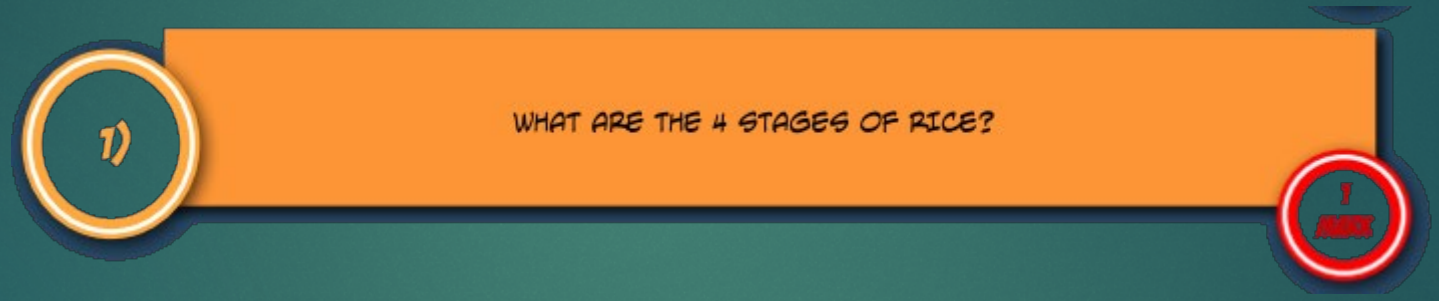
1) What are the two ways in which injuries occur?

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS

Identify the common treatments for injuries (RICE)



SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand the need for rest.

1) WHY DO YOU NEED TO INCLUDE REST IN A TRAINING PROGRAMME?

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand the effect of the diet on the muscular system.

1) WHAT IS THE TIME FRAME AFTER EXERCISE THAT YOU NEED TO EAT.

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Understand the potential for injuries such as strains and muscle atrophy.

1) What are the two ways in which injuries occur?

Injuries occur in two ways externally or internally.

1 MARK

GO BACK TO TOPICS



Identify the common treatments for injuries (RICE)

1)

WHAT ARE THE 4 STAGES OF RICE?
REST
ICE
COMPRESSION
ELEVATION

1 MARK





Understand the need for rest.

1)

WHY DO YOU NEED TO INCLUDE REST IN A TRAINING PROGRAMME?

TO ALLOW ADAPTATIONS TO TAKE PLACE

1 MARK

GO BACK TO TOPICS



Understand the effect of the diet on the muscular system.

1)

WHAT IS THE TIME FRAME AFTER EXERCISE THAT YOU NEED TO EAT.

UP TO 2 HOURS



Questions

Understand the potential for injuries such as strains and muscle atrophy.

How do the following drugs affect the Muscular System? (4)

Anabolic steroids
Narcotic analgesics
Peptide hormones
Blood doping

Show Me The Answers

Go Back To Topics

Questions

Identify the common treatments for injuries (RICE)

Give an example of an overuse injury, describe how it happens, how to avoid it and how to treat it (4)

Show me the answers

Go back to topics

Questions

Understand the need for rest.

Name 2 sports for which good posture is vital (2)

Show me the answers

Go back to topics

Questions

Understand the effect of the diet on the muscular system.

What effect does protein have on your Muscular System?

Show me the answers

Go back to topics

6 MARK ANSWERS

Understand the potential for injuries such as strains and muscle atrophy.

How do drugs affect the Muscular System? (4)

Anabolic steroids – Build muscle tissue, speed up recovery
Narcotic analgesics – Can compete without pain
Peptide hormones – Encourage muscle growth
Blood doping – more Oxygen carried to muscles

GO BACK TO TOPICS

6 MARK ANSWERS

Identify the common treatments for injuries (RICE)

Give an example of an overuse injury, describe how it happens, how to avoid it and how to treat it (4)

Sport - Tennis/golfers elbow,

How it happens –too much use of tendons,

How to avoid it - choose correct sized equipment, moderate the amount of play,

How to treat it - use rice to treat or seek medical advice

GO BACK TO TOPICS

6 MARK ANSWERS

Understand the need for rest.

Name 2 sports for which good posture is vital (2)

Gymnastics, Diving, Dance

GO BACK TO TOPICS

6 MARK ANSWERS

Understand the effect of the diet on the muscular system.

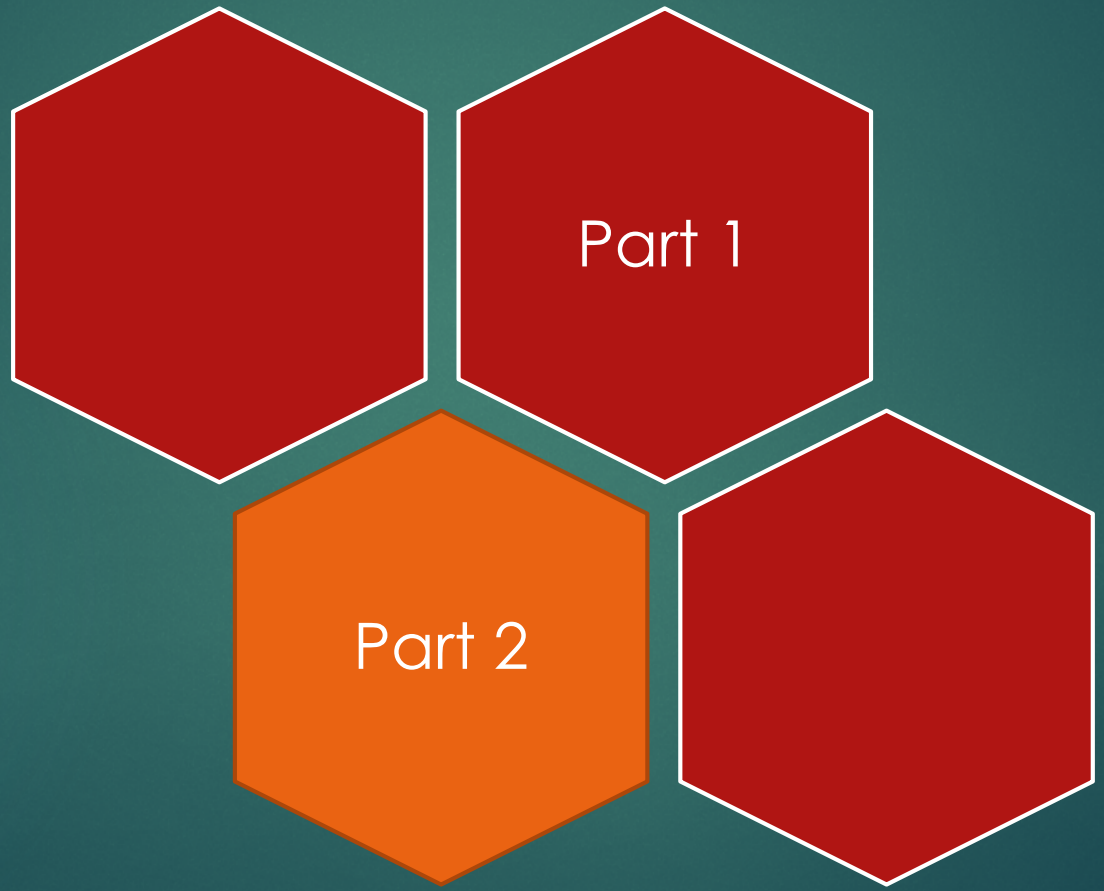
What effect does protein have on your Muscular System?

Proteins repair tissue, Protein build body cells, Proteins build muscle mass

GO BACK TO TOPICS

GO TO ALL TOPICS

Topic 1.2.5: A healthy, active lifestyle and your skeletal system

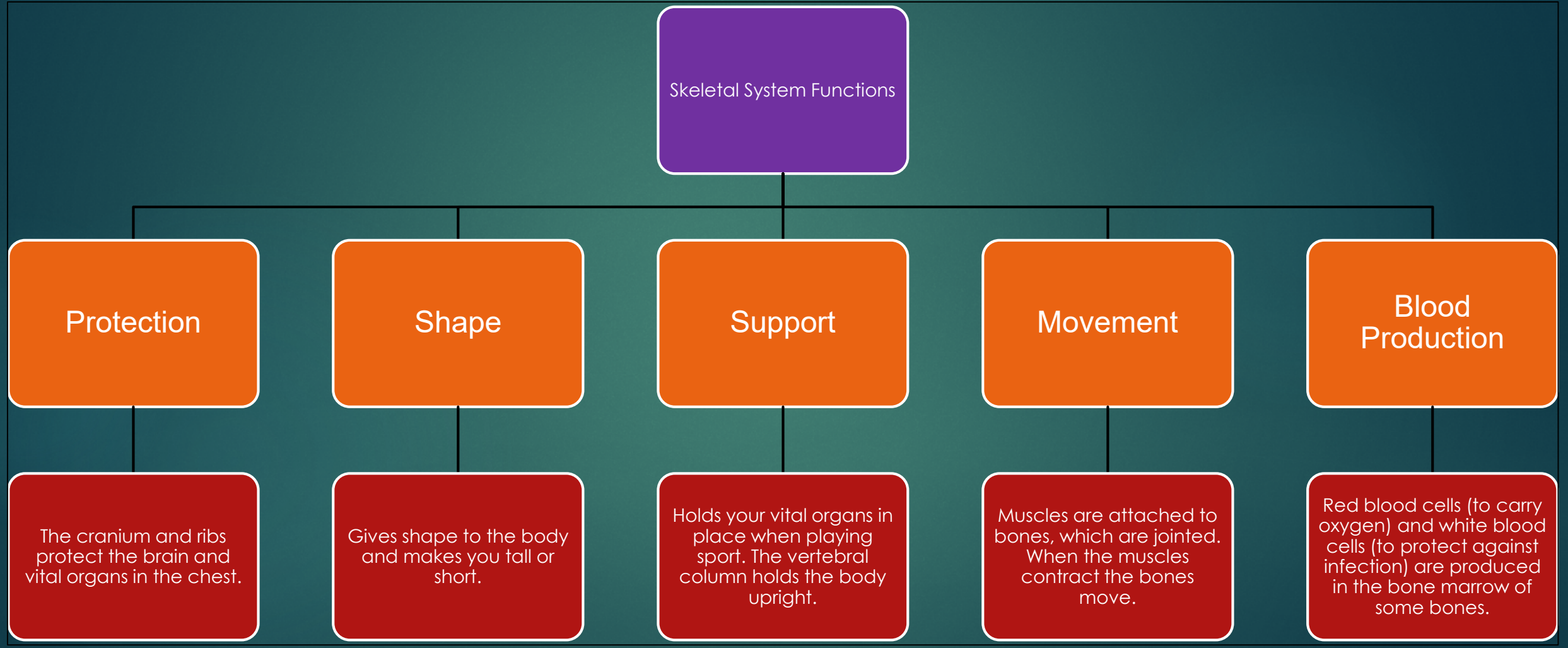


GO TO PART 1,2,3

Topic 1.2.5: A healthy, active lifestyle and your skeletal system – Part 1

Topic	Key Concepts	1-2 Mark Questions	Mark Questions	6 Mark Questions - on A healthy, active lifestyle and your skeletal system	6 Mark Questions Answers
Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.					
Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).					
Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.					
Explain the importance of weight-bearing exercise in preventing osteoporosis.					
Identify the potential for injuries such as fractures.					

Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.



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key concepts

Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).

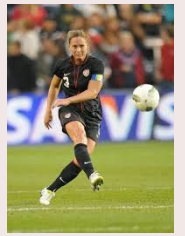
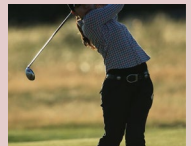
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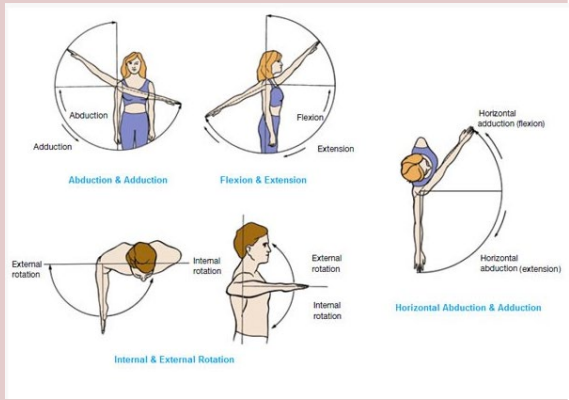
Movement

Joints

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Movement

Movement	Description	Sporting Example	Picture – Click to enlarge
Abduction	Movement away from the mid-line of the body	Cricket bowl – hip abduction	
Adduction	Movement towards the mid-line of the body	Football kick – taking a shot	
Extension	Straightening limbs at a joint	Basketball set shot	
Flexion	Bending the limbs at a joint.	Weight lifting – Squatting	
Rotation	A circular movement around a fixed	Hip rotation on a golf swing	

Joint	Location	Movement	Picture – Click to enlarge
Hinge Joint	Elbow, Knee	Extension, Flexion	
Ball & socket joint	Hip, Shoulder	Abduction, Adduction, Rotation	

key concepts

Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.

Immediate effects when first exercising:

- Muscles contract more often
- Blood flow to muscles increases
- Muscle temperature rises
- Increase demand for oxygen to the working muscles
- Lactic acid begins to build up
- Little effect on bones and joints

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Explain the importance of weight-bearing exercise in preventing osteoporosis.

Exercise which strengthens the bones can prevent osteoporosis or the onset.

Weight bearing exercises such as walking, running, tennis and aerobic are all good as they put weight and pressure on certain bones, increasing their strength.

Exercises that are not weight bearing or swimming, when the body is supported by water and cycling when the body is supported by the bike

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Identify the potential for injuries such as fractures.

Fractures are breaks or cracks in the bone. A broken bone is the same as a fracture! They can also be either open or closed.

Types of fracture

- Closed fractures are more common and mean that the skin isn't broken
- Open fractures involve the broken end of the bone coming through the skin
- All fractures usually cause bruising and swelling because of associated damage to surrounding blood vessels
- They are also very painful because nerves within the bone are damaged

GO BACK TO TOPICS



Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.

1) NAME ONE FUNCTION OF THE SKELETON?

1 MARK

2) THE SKELETON PROVIDES SUPPORT AND GIVES UP SHAPE.

STATE ANOTHER FUNCTION OF THE SKELETON AND RELATE IT TO A SPORTING EXAMPLE.

FUNCTION _____
RELEVANCE TO SPORT_____
EXAMPLE FROM SPORT____

3 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).

1) WHAT TYPE OF SYNOVIAL JOINT GIVES THE GREATEST RANGE OF MOVEMENT? 1 MARK

2) WHAT TYPE OF SYNOVIAL JOINT GIVES THE SMALLEST RANGE OF MOVEMENT? 1 MARK

2) DURING HER ROUTINE A GYMNAST WILL USE A VARIETY OF MUSCLES.

WHICH MUSCLES ARE RESPONSIBLE FOR THE FOLLOWING ACTIONS?

ABDUCTION OF THE UPPER ARM AT THE SHOULDER IN PREP RATION FOR A CARTWHEEL 1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS

Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.

Click to enlarge

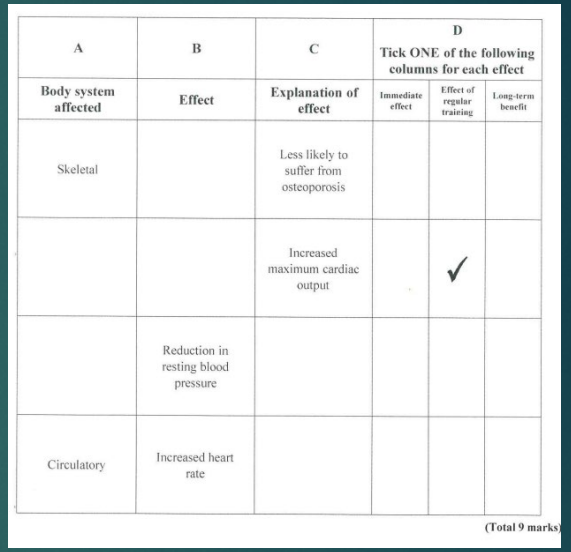
CHANGES OCCUR TO THE PERFORMER'S BODY AS A RESULT OF IMMEDIATE EXERCISE AND REGULAR TRAINING.

REGULAR TRAINING CAN ALSO LEAD TO SOME LONG-TERM HEALTH BENEFITS

1)

THE TABLE BELOW RELATES TO THE EFFECTS OF EXERCISE AND TRAINING ON DIFFERENT BODY SYSTEMS.
FILL IN THE BLANKS IN COLUMNS ABC

9 MARK



A	B	C	D Tick ONE of the following columns for each effect		
Body system affected	Effect	Explanation of effect	Immediate effect	Effect of regular training	Long-term benefit
Skeletal		Less likely to suffer from osteoporosis			
		Increased maximum cardiac output		✓	
	Reduction in resting blood pressure				
Circulatory	Increased heart rate				

(Total 9 marks)

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Explain the importance of weight-bearing exercise in preventing osteoporosis.

1) WHAT EFFECT DOES REGULAR TRAINING HAVE ON BONE DENSITY?

1 MARK

SHOW ME THE ANSWERS

GO BACK TO TOPICS



Identify the potential for injuries such as fractures.

1)

Define the following terms:

- Flexion
- Extension
- Abduction
- Adduction
- Rotation
- Fracture
- Dislocation
- Sprains







Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.

1) SHAPE, SUPPORT, MOVEMENT, PROTECTION, BLOOD PRODUCTION

1 MARK

2) FUNCTION - PROTECTION
RELEVANCE TO SPORT - THE RIBS WILL PROTECT THE VITAL ORGANS DURING CONTACT
EXAMPLE FROM SPORT RIBS PROTECT THE VITAL ORGANS DURING A RUGBY TAKLE

3 MARK

GO BACK TO TOPICS



Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).

1) BALL AND SOCKET — 1 MARK

2) HINGE (JOINT) — 1 MARK

2) DELTOIDS — 1 MARK

GO BACK TO TOPICS



Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.

1. (i) (ii)

A	B	C	D		
			Tick ONE		
Body system affected	Effects	Explanation/ benefit of effect	I	R	LT
Skeletal	Stronger bones/increased bone density	Less likely to suffer from osteoporosis			✓
Circulatory/ Cardiovascular system	Increased SV/Drop in resting HR cardiac hypertrophy/increased size or strength of heart/increased strength of contraction	Increased maximum cardiac output			
Circulatory/ Cardiovascular system	Reduction in resting blood pressure	Less likely to suffer with: High blood pressure/reduces BP/CHD/stroke/heart failure/attack			✓
Circulatory	Increased heart rate	Increased oxygen (delivery)/CO_2 removal	✓		

[9]





Explain the importance of weight-bearing exercise in preventing osteoporosis.

1) INCREASE BONE DENSITY

GO BACK TO TOPICS



Identify the potential for injuries such as fractures.

1)

Define the following terms:

- Flexion - Bending the limbs at a joint.
- Extension - Straightening limbs at a joint.
- Abduction- Movement away from the mid-line of the body.
- Adduction - Movement towards the mid-line of the body.
- Rotation - A circular movement around a fixed point.
- Fracture - Fractures are breaks or cracks in the bone.
- Dislocation - when the bones of a joint are wrenched apart.
- Sprains - when ligaments are overstretched or torn around a joint.





Questions

Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.

Name & describe 3 functions of the skeletal system

Show me the answers

Go back to topics

Questions

Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).

Name the movement and the joint used in the shoulder action in a tennis serve (1)

Show me the answers

Go back to topics

Questions

Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.

Describe 4 long term effects of exercise on the Skeletal System

Show me the answers

Go back to topics

Questions

Explain the importance of weight-bearing exercise in preventing osteoporosis.

What effect does protein have on your Muscular System?

Show me the answers

Go back to topics

Questions

Identify the potential for injuries such as fractures.

Describe a compound fracture and the term dislocation ?

Show me the answers

Go back to topics

6 MARK ANSWERS

Identify the 3 functions of the skeletal system during physical activity: movement, support, and protection.

Name & describe 3 functions of the skeletal system 3 of the following:

Protection

The cranium and ribs protect the brain and vital organs in the chest.

Shape

Gives shape to the body and makes you tall or short.

Support

Holds your vital organs in place when playing sport. The vertebral column holds the body upright.

Movement

Muscles are attached to bones, which are jointed. When the muscles contract the bones move.

Blood Production

Red blood cells (to carry oxygen) and white blood cells (to protect against infection) are produced in the bone marrow of some bones.

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6 MARK ANSWERS

Identify and explain the ranges of movement possible at a hinge and ball and socket joint (flexion, extension, abduction, adduction and rotation).

Name the movement and the joint used in the shoulder action in a tennis serve (1)

Movement: Abduction

Joint: Ball and Socket

GO BACK TO TOPICS

6 MARK ANSWERS

Identify and explain the effects of regular and long-term participation in exercise on the skeletal system.

Describe 4 long term effects of exercise on the Skeletal System (4)

Increasing bone density, slows the loss of calcium, increases flexibility of joints, strengthens tendons and ligaments

GO BACK TO TOPICS

6 MARK ANSWERS

Explain the importance of weight-bearing exercise in preventing osteoporosis.

What effect does protein have on your Muscular System?

GO BACK TO TOPICS

6 MARK ANSWERS

Identify the potential for injuries such as fractures.

Describe a compound fracture and the term dislocation ?

Compound Facture –

Bone comes through skin, risk of infection

Dislocation -

Joint moved outside its desired range

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