

Edexcel GCSE Physical Education Revision and Examination Tips

Healthy Active Lifestyle = complete state of mental, physical and social well being

Mental Benefits are often referred to as psychological benefits. Either of these terms can be used.

Physical Benefits are anything to do with the physical performance/changes of an activity

Social Benefits need to be thought of as meeting people, friends etc.

Reasons for taking part in Physical Activity

Cooperation – Working as a team

Competition – Mental stimulation/mental preparation for sport/stress release

Physical Challenge – setting a goal that is challenging

Aesthetic Appreciation – Activity/routine that looks good. E.G. Dance, Gymnastics

Development of friends – meeting other performers/ coaches/officials/ Friends

1.1.1 Influences

People – Friends will influence your choice of sport or activity/ Family will also influence you

Image – Media coverage/fashion

Cultural Factors – Disability/Age/Gender

Resources – Facility/Location/Availability/Time

Health and Wellbeing – Illness

Socio Economic - Cost

Examiners Tip

Questions on this section are likely to be open questions which require a longer answer. You may be asked to evaluate all these influences, so you should know them all as your answer will be worth several marks

Opportunities

Initiatives to keep people involved

PESSCL

SCHOOL SPORTS PARTNERSHIP

SPORT ENGLAND

YOUTH SPORT TRUST (TOP LINK)

ACTIVE KIDS PROGRAMME

SPORTS PARTICIPATION PYRAMID

ELITE

PERFORMANCE

PARTICIPATION

FOUNDATION

Examiners Tip

Generally a 6 mark question; know two of the initiatives very well

Health, exercise, fitness and performance

Health – a state of complete mental, physical and social wellbeing and not merely the absence of disease

Exercise – A form of physical activity which maintains or improves health and or physical fitness

Fitness – ability to meet the demands of the environment

Performance – How well a task is completed

Examiners Tip

All of the above link together in the way of exercise improves health and develops fitness, which enhances performance in physical activities.

The five health related components

Cardiovascular fitness – The ability to exercise for prolonged periods of time

Muscular strength – The amount of force a muscle can exert against resistance

Muscular endurance – The ability to use voluntary muscles many times without getting tired

Flexibility – The range of movement at a joint

Body Composition – The percentage of body weight that is muscle, bone and fat

Examiners Tip

The five components of health related exercise are all Physical benefits of exercise. Somatotypes and diet also link with body composition.

The five skill related components

Agility – The ability to change body position quickly and with control

Balance – The ability to retain the center of mass (gravity) of the body above the base of support with reference to static or dynamic movement

Coordination – The ability to use two or more body parts together

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 rate at which an individual is able to perform movement or cover distance in a period of time

Examiners Tip

Remember A B C P R S

When asked to select the skill being shown in the photograph and explain how it is used, go for the most obvious first.

Principles of training

Individual Needs – Suite the athlete's needs

Specificity – Matching the training to the needs of the activity (Method of training)

Overload – Gradually increasing the amount of training than they normally would

Rest/recovery – A period of time when not exercising

Frequency – How often you train

Intensity – How hard someone is training

Time – How long each training session is

Type – The method of training selected

Reversibility – Body returns to its original state

Examiners Tip

Remember Overload does not mean training too hard or too much. This is a common mistake in the exam.

Goal Setting

Specific – Knowing exactly what the goal is.

Measurable – Knowing when a goal has been achieved

Achievable – Running an extra 100 meters in the 12 minute cooper test after six weeks training (Achievable); Running a marathon after 4 weeks training (Not achievable)

Realistic – A goal may well be achievable in theory but is it achievable in practice. Having enough time and resources to complete it.

Time-bound – A definite end point for the goal set.

Methods of training

Examiners Tip

Make sure to know what the different methods of training are and also what sports they are associated with and why

In the exam you might be expected to be able to design a fitness circuit or a skills circuit or a combination of both

You might be given an example of a circuit and asked to state its faults and suggest how to improve it

Think about how the stations are set out. Are the muscle groups being worked consecutively?

The Warm up (Exercise session)

Warm up – Prevents Injury; Improves performance; Practice/rehearse skills before match and prepare psychologically for the event/match.

Cardiovascular Warm up

Stretching – specific to the sport

Skills practice

Main event

Cool Down

Examiners Tip

If you are presented with a graph, make sure to look at the question carefully as it could be worded in a way to make it difficult.

Make sure you know what anaerobic and aerobic mean and what exercises would use what energy system

When answering a question on heart rate, remember that maximum heart rate is the number of beats per minute NOT the number of beats. You will lose marks if you do not write per minute.

Diet

Balanced diet = Vitamins; Minerals; Protein; Fibre; Water; Carbohydrates; Fat.

Macro Nutrients: Carbohydrates, Fats and Proteins

Micro Nutrients: Minerals; Calcium, Iron....

Examiners Tip

You need to understand energy balance: Work harder you lose weight; Consume less calories you lose weight.

You need to know what each part of the balanced diet is needed for: Fat and Carbohydrates = Slow release Energy; Protein = repair and growth of muscles; Water = Avoid Dehydration.

Make sure you know why calcium and iron are important

Body Types (Somatotypes)

Ectomorph – Tall and thin = High Jumper

Endomorph – Fatter – Sumo Wrestler

Mesomorph – Wide shoulders and larger muscles – 100m Sprinter

Examiners Tip

You need to understand what the above means and also relate them to a particular sport

Weight Related Conditions

Anorexic – Eating disorder due to loss of appetite

Obese – People who are overfat

Overfat – body fat excess of normal

Overweight – Weighing in excess of normal

Underweight – Weighing less than normal

Drugs

Anabolic Steroids – Male growth hormone – promotes bone and muscle growth – 100m Sprinter

Beta Blockers – controls heart rate producing a calming and relaxing side effect – Archery

Diuretics – elevate the rate of urine – Jockeys

Narcotics – reduces pain – injured athletes

Stimulants – Increased mental and physical readiness – Baseball players

Peptide hormones – drugs that cause other hormones to be produced – Long distance runners

Smoking – Recreational – Accepted

Alcohol – Recreational - Accepted

Risk and preventing Injuries

Warming up and cooling down

Checking equipment and facilities

Correct clothing

Balanced competition – Weight, Gender and Age

Rules – PAR Q (Physical Activity Readiness Questionnaire)

Examiners Tip

In the exam you should choose the obvious answer to questions about the avoidance of injury in specific sports

Cardiovascular system

The heart, Lungs and blood vessels

Short term effects of exercise – Increased Heart Rate, Increased blood pressure

Long term effects of exercise – Decreased resting heart rate, Improved rate of recovery, Increased stroke volume and increased cardiac output.

Effects of exercise on the body – Faster breathing, increased body temperature, Sweating, Muscles begin to ache

The Respiratory System

Short Term Effects

Breathing quickens and deepens

Oxygen Debt

Long Term Effects

Vital Capacity is increased

More alveoli become available for improved gaseous exchange

Examiners Tip

Make sure to revise Tidal Volume, Vital Capacity and Oxygen Debt

The Muscular System

Names of the 11 major muscles -

Deltoid; Trapezius; Latissimus Dorsi; Pectorals; Abdominals; Biceps; Triceps; Gluteals; Quadricep; Hamstrings and Gastrocnemius.

Muscles work in antagonistic pairs – One muscle contracts the other relaxes

Type of movement created by different muscles

Isometric contractions – contractions occur but result in the muscle not lengthening. E.G. Pushing against a wall.

Isotonic Contractions – this type creates limb movement. E.G. Bicep curl

Examiners Tip

Do NOT abbreviate any muscles for example: Quads, glutes etc. make sure to write the full name.

The Skeletal System

Functions

Movement

Support

Protection

Shape

Blood Production

Joints and Movement

Hinge Joint – Elbow/Knee – Flexion and extension

Ball and Socket Joint – Shoulder/hip – Flexion, Extension, Abduction, Adduction and rotation

Types of movement

Flexion

Extension

Abduction

Adduction

Rotation

Effects of exercise

Increase bone density

Ligaments and Tendons become thicker and stronger

Examiners Tip

Generally you will have to interpret a photo or a picture with regards to joint movements

Injuries

Bone Injuries

Fractures – Swelling around the soft tissue

Closed - Skin covered

Compound - Bone protrudes through skin

Simple fractures - In line and no displacement of bone

Stress Fractures – hairline cracks

Joint Injuries

Tennis elbow – swelling of tendons around the joint – Distortion of natural Shape

Dislocation – Bone at a joint forced out of its normal position

Sprains – Damaged ligaments – Joints – Twisted ankle

Torn Cartilage – Torn

Treatment – Soft Tissue Injuries

Rest

Ice

Compression

Elevation

Overall Examiners Tip

Read the question twice and answer it once, keep to the obvious