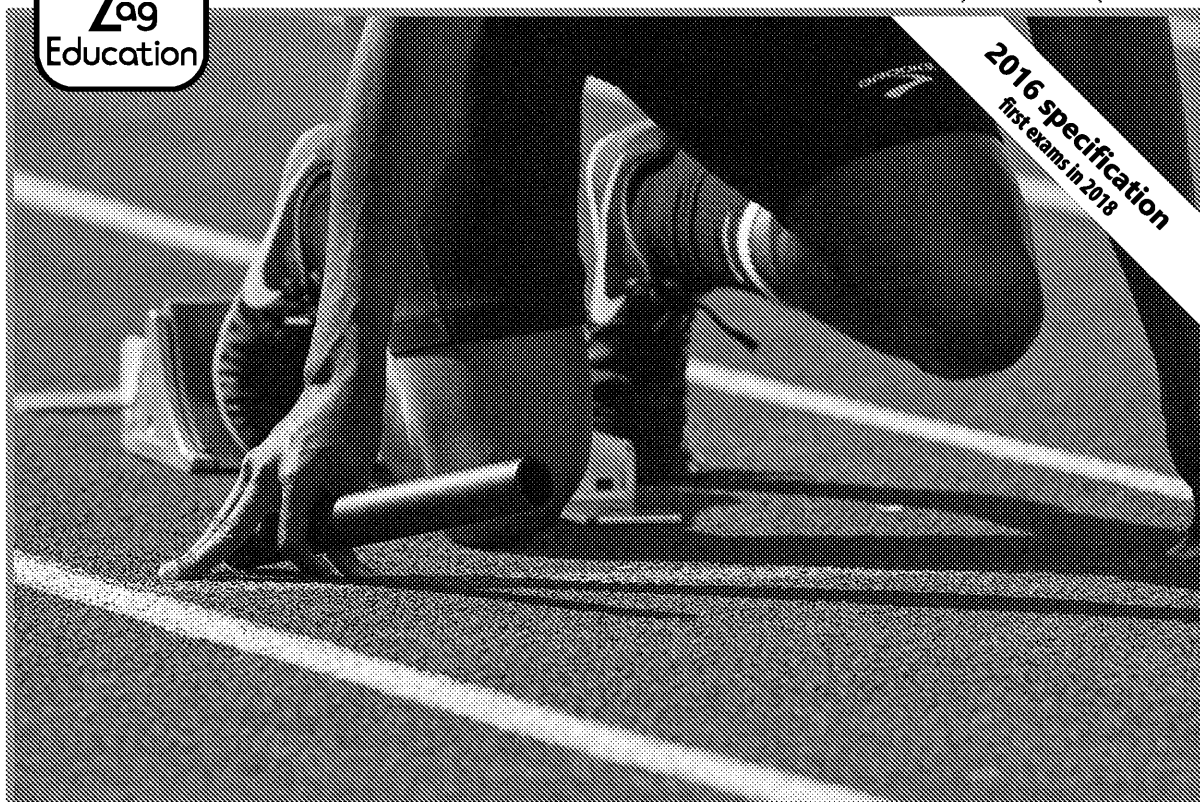




Topic on a Page

for GCSE WJEC PE

Folder A: Completed Mind Maps

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Contents

Product Support from ZigZag Education	ii
Terms and Conditions of Use	iii
Teacher's Introduction.....	v

Folder A: Completed Mind Maps

Topic 1: Health, training and exercise

1. Health, fitness and well-being
2. Consequences of a sedentary lifestyle
3. Diet and nutrition
4. Components of fitness
5. Measuring health and fitness
6. Principles of training and methods of training
7. Warm-up and cool-down

Topic 2: Exercise physiology

8. The skeletal system
9. The muscular system
10. The cardiovascular system
11. The respiratory system
12. Aerobic and anaerobic exercise
13. Short- and long-term effects of exercise

Topic 3: Movement analysis

14. Movement analysis
15. Sports technology

Topic 4: Psychology of sport and physical activity

16. Goal-setting
17. Information processing and feedback
18. Guidance and stages of learning
19. Motivation and mental preparation
20. Skills and types of practice

Topic 5: Socio-cultural issues in sport and physical activity

21. Factors affecting participation
22. Commercialisation of sport
23. Ethical issues

Folder B: Activity Mind Maps

Topic 1: Health, training and exercise

1. Health, fitness and well-being
2. Consequences of a sedentary lifestyle
3. Diet and nutrition
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16. Goal-setting
17. Information processing and feedback
18. Guidance and stages of learning
19. Motivation and mental preparation
20. Skills and types of practice

Topic 5: Socio-cultural issues in sport and physical activity

21. Factors affecting participation
22. Commercialisation of sport
23. Ethical issues

All Mind Maps are provided in A3 and A4 formats.

Teacher's Introduction

This resource is intended to be used as a revision tool to support students in their preparation for the **WJEC GCSE PE Unit 1 Exam**. It covers the entire theory specification across the five subject content areas:

1. Health, training and exercise (Pages 1–7)
2. Exercise physiology (Pages 8–13)
3. Movement analysis (Pages 14–15)
4. Psychology of sport and physical activity (Pages 16–20)
5. Socio-cultural issues in sport and physical activity (Pages 21–23)

Remember!

Always check the exam board website for new information, including changes to the specification and sample assessment material.

The aim of the resource is to summarise the different topics covered within each of these content areas into manageable sheets of A3 paper, providing students with an engaging visual overview of each topic.

The resource comes with partially completed mind maps which form activity pages, giving students the opportunity to test their knowledge of the content by completing questions set out on each page. It can be used by students of all abilities, as high-achieving students could illustrate each topic with additional applied examples, whereas lower-ability students may wish to annotate each page to enhance their comprehension of topic areas.

In total, there are:

- 23 completed mind maps, which summarise each topic area, labelled: 
- 23 partially completed activity mind maps, which students can use to test their knowledge, labelled: 

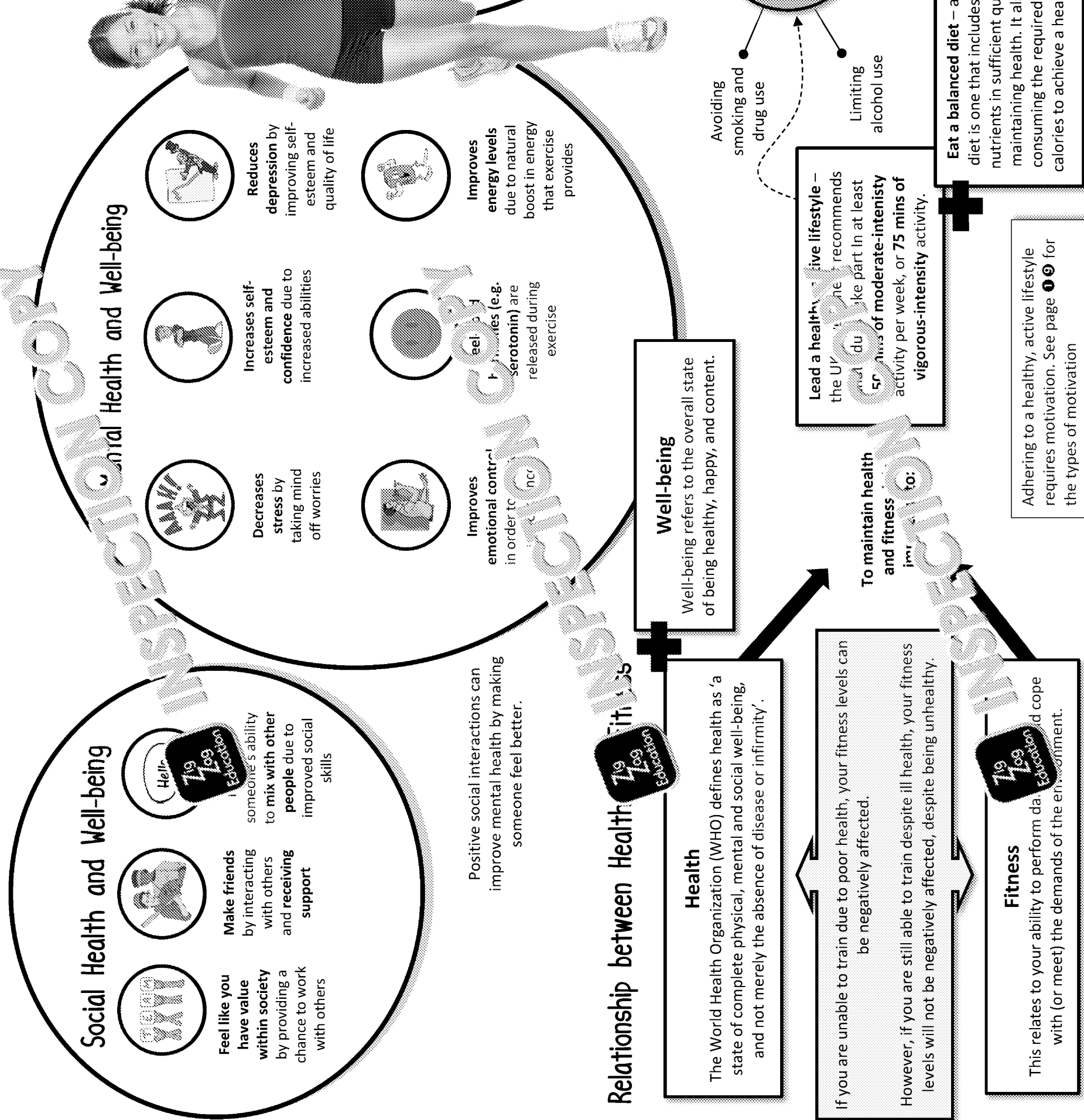
All Mind Maps are provided in A3 and A4 formats.

How to use the resource:

- The sheets can be handed out at the end of each topic for revision purposes. This can help students recap knowledge of each topic at the end of teaching that area.
- Each page can be printed out in poster size and displayed on your classroom walls as the topic is being taught, so that students have a visual reminder of what they have been covering in their lessons.
- Students should be encouraged to complete the partially completed mind maps to test their knowledge as part of revision after all content has been taught, or after each topic.

September 2023

Health, Fitness and Well-being



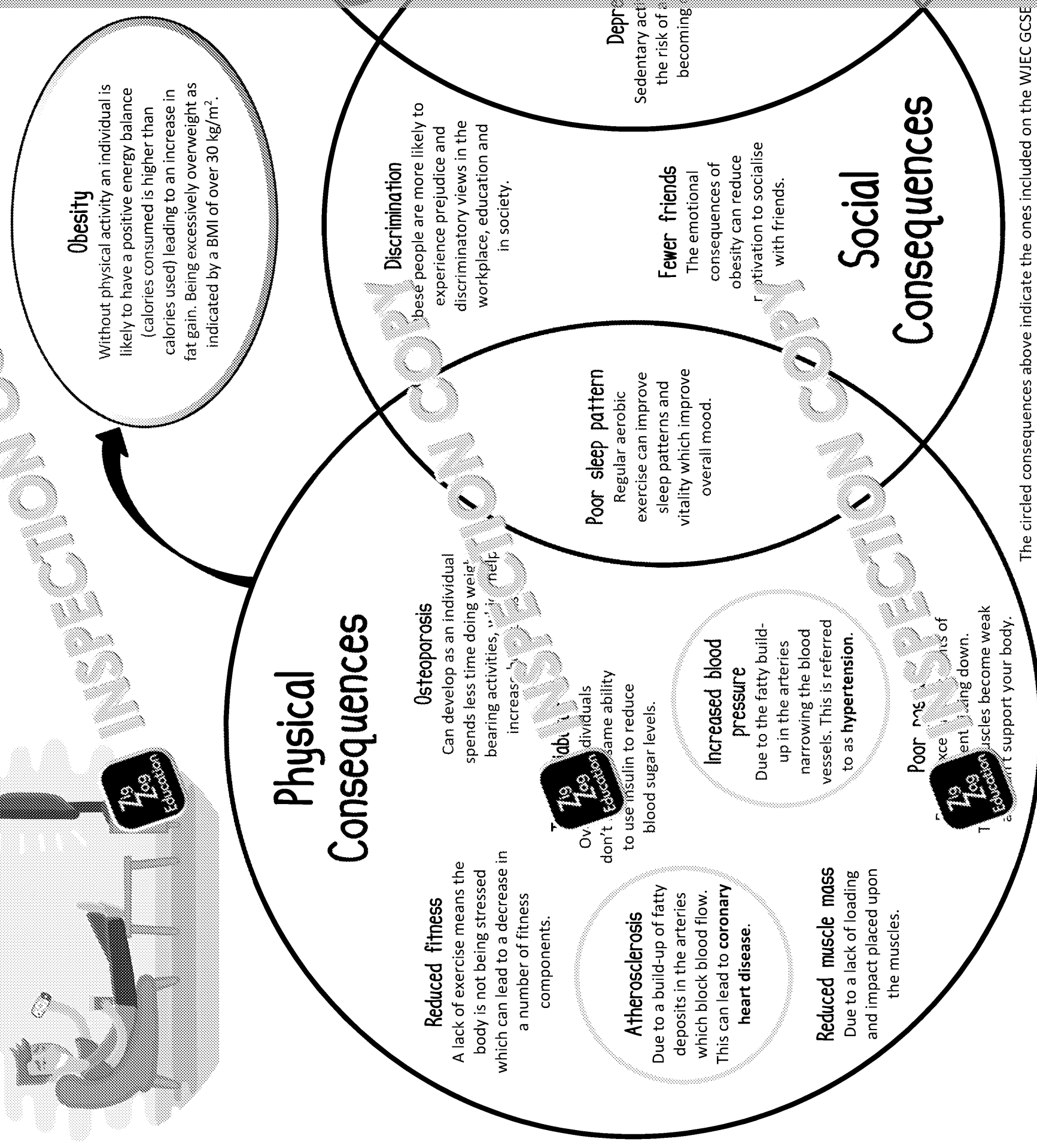
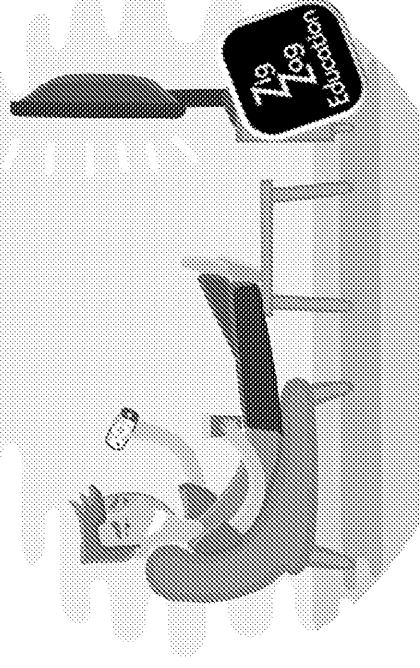
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Consequences of a Sedentary Lifestyle

A sedentary lifestyle involves little or no physical activity. If a person leads a sedentary lifestyle, they are at risk of many negative consequences to their physical, social and emotional health.



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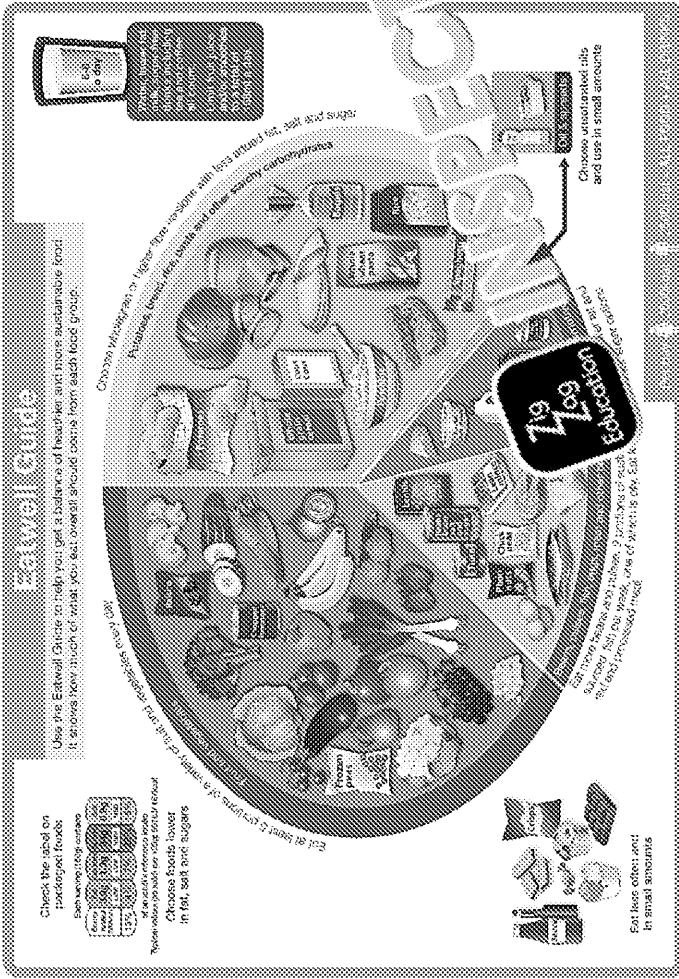
Diet and Nutrition

Balanced Diet

There is no single food which fulfils the needs of the body; therefore, it is important that a balanced diet is consumed. A balanced diet is needed to:

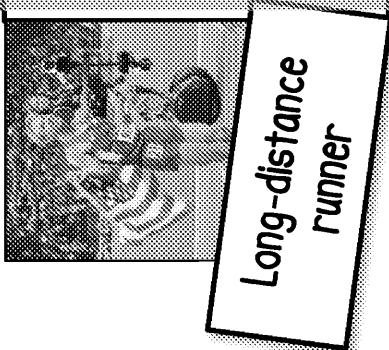
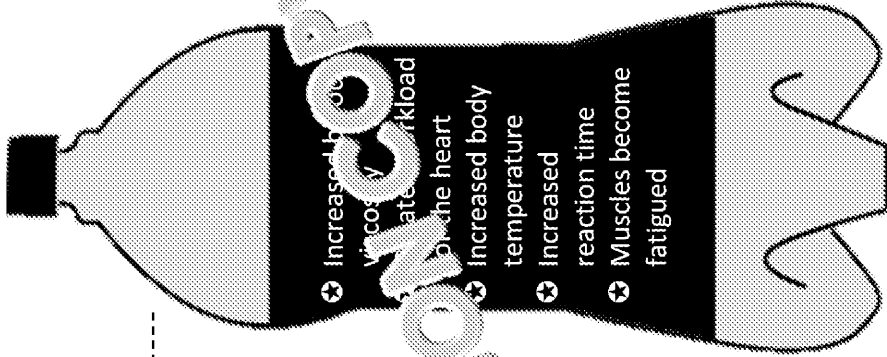
- ensure enough nutrients, vitamins and minerals are consumed
- limit the storage of unused energy as fat
- reduce the risk of obesity
- ensure energy is available for physical activity
- ensure nutrients are available for energy production
- maintain overall health

The Eatwell Guide is a useful tool for following a healthy balanced diet...



Water and dehydration

- ❖ Dehydration occurs when there is an imbalance between the amount of water taken in through food and drink and the amount of water lost.
- ❖ In order to avoid dehydration it is important that enough water is drunk.
- ❖ Drinking water is particularly important when exercising, as water will be lost as sweat.
- ❖ In some sports such as long-distance cycling, the athletes can consume water as they compete. However, in team sports such as hockey, the athletes usually need to take a break in play, e.g. during an injury or at half-time.

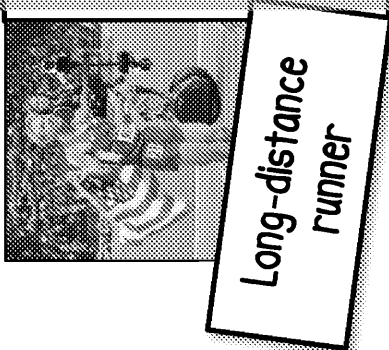


Macronutrients	Energy
Carbohydrate	Should make up 50% of the diet Main source of energy for the body Provides fuel for aerobic and anaerobic exercise Can be found in foods such as pasta, rice and bread Complex carbohydrates, e.g. pasta, provide slow-release energy, whereas simple sugars, e.g. soda drink, provide quick-release energy
Fat	Should make up 30–35% of the diet Provides energy for aerobic exercise Important energy source during physical activity such as walking Provides insulation for the body Provides protection for the vital organs Excessive intake should be avoided as this can lead to obesity and obesity-related health issues
Protein	Should make up 15–20% of the diet Building blocks of the body Required for muscle growth and repair Required during recovery from exercise in order to repair muscle tissue Complete proteins: red meat, chicken, eggs, milk Incomplete proteins: vegetables, beans, nuts

Minerals, needed by the body in small amounts, ensure body systems are functioning effectively. Examples include vitamins C and D which improve immune function and so reduce the risk of becoming ill. Minerals such as calcium are essential for healthy bone growth.

Energy

Different sports require different amounts of energy. They will require different amounts of energy.

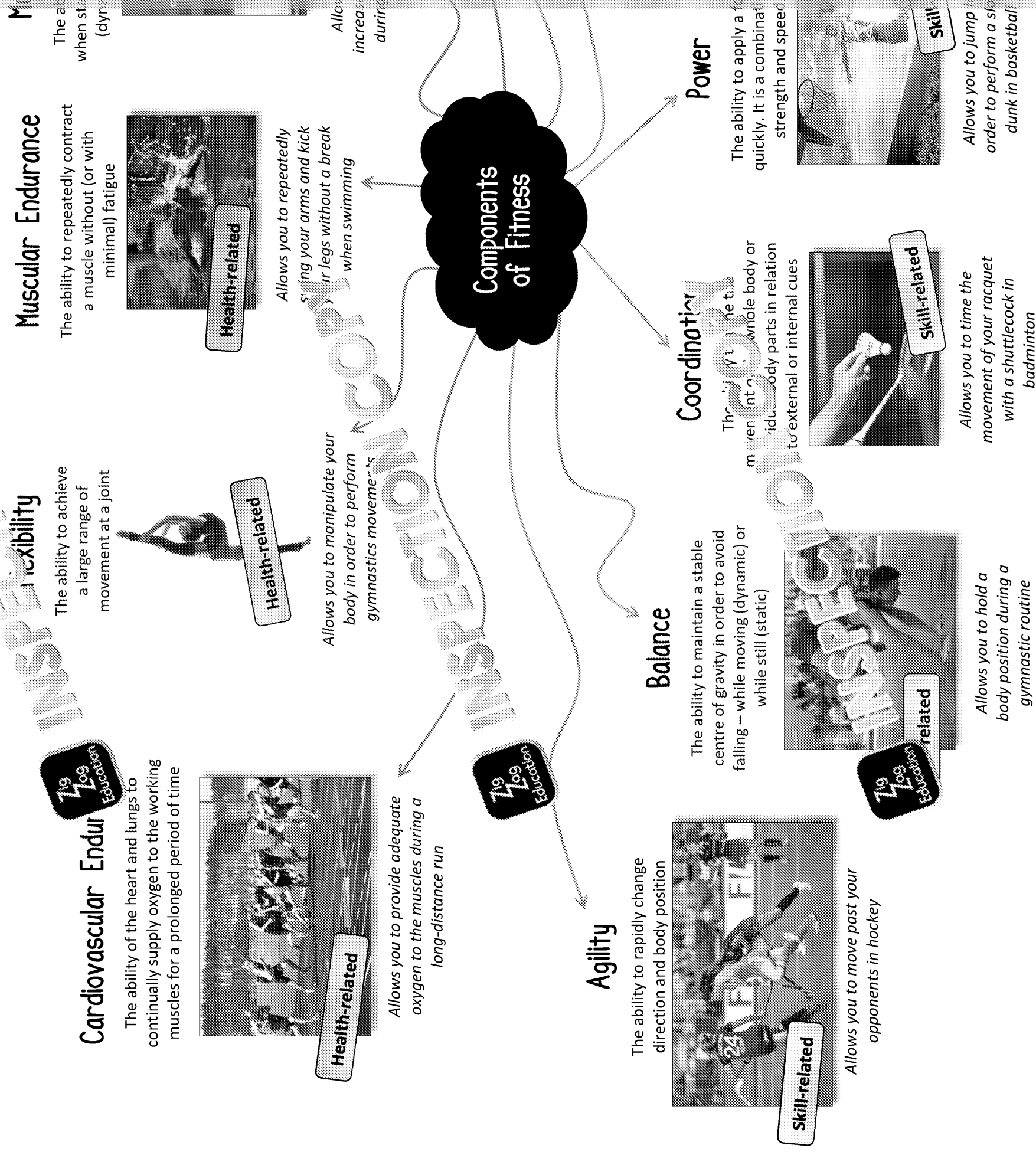


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Components of Fitness

The different components of health and fitness that can be improved through training are outlined below. Different sports require different components to be developed. All components can be classed as health-related and skill-related.



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Measuring health and fitness

There is a range of different fitness tests which can be used to evaluate the different components of fitness. These are outlined below along with the advantages and limitations of fitness testing are provided.

Importance of Measuring Fitness

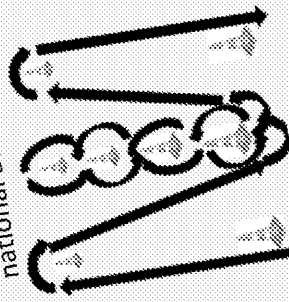
- Can establish a baseline or current levels of fitness
- Allows you to monitor progress with follow-up measurements
- Goals can be set based on current fitness
- Can provide motivation and feedback between athletes
- Comparisons can be made between athletes
- It can help in the design of training programmes, i.e. train the weak points they scored poorly in
- Very useful to identify the strengths and weaknesses of an athlete/programme

Importance of protocols

- Ensures that test instructions are standardised (repeated the exact same way with different groups)
- Improves the validity and reliability of fitness test results

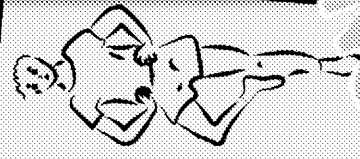
Agility → Illinois Agility Test

A multidirectional course which must be completed in the quickest time possible. The participant's time is compared to the national average.



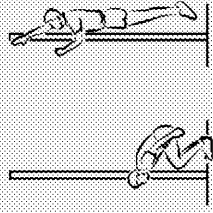
(Static) Balance → Stork Stand Test

Requires the participant to stand on the ball of one foot for as long as possible. The time that they manage is compared to the national average.



Power → Vertical Jump Test

Requires the participant to reach as high as they can on a wall and then perform a standing vertical jump. The distance (cm) between their jump height and standing reach is measured and compared to the national average.



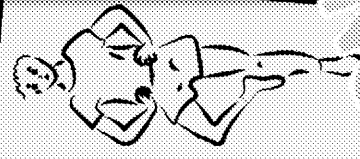
Reaction Time → Ruler Drop Test

Requires a tester to place a ruler between the fingers of the participant. The ruler is then dropped and the participant should grab the ruler as quickly as possible. The distance (cm) the ruler travels is compared to the national average.



Coordination → Alternate Hand Throw

The participant must throw a ball against a wall and catch it in their opposite hand as many times as possible in 30 seconds. The number of completed catches is compared to the national average.



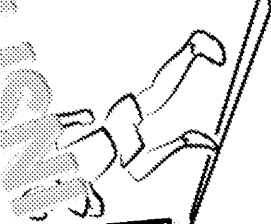
Flexibility (hyperextension) → Sit-and-reach Test

Requires the participant to sit with their legs outstretched against a box and attempt to reach as far forward as possible. The distance (cm) onto the box that they reach is compared to the national average.



Speed → 30/50 m Sprint Test

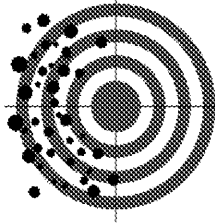
Requires participant to run 30 or 50 m in the shortest possible time. Use the average of three attempts is taken.



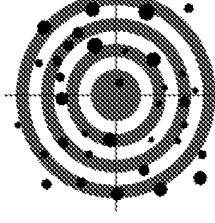
Validity and reliability are terms which can describe the quality of results obtained from fitness tests.

Validity refers to whether a fitness test measures what it intends to measure.

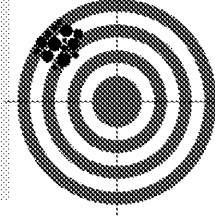
Reliability refers to the fitness test to produce the same result if it was carried out again in the same way.



Low validity, low reliability



High validity, low reliability



Low validity, high reliability

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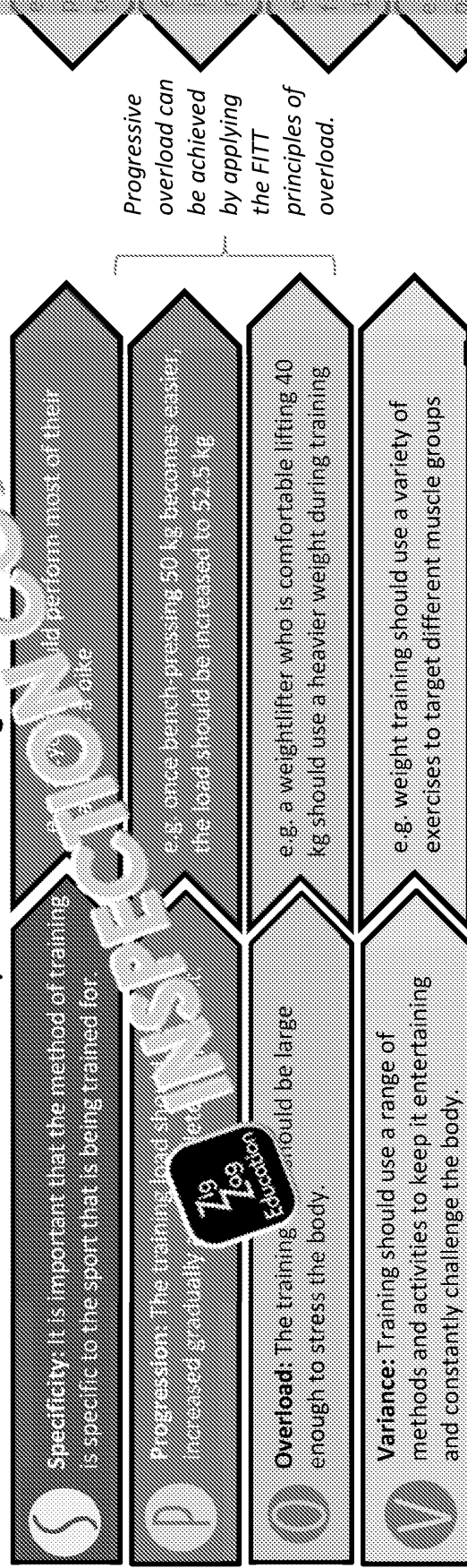
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Principles of Training and Methods of Training

Principles of training should be applied to all methods of training in order to optimise performance.

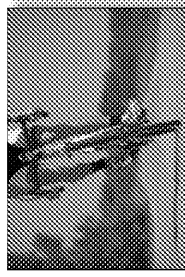
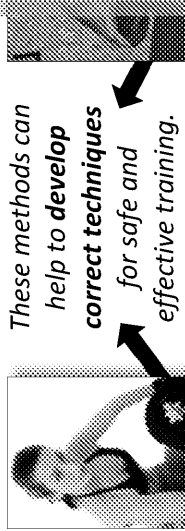
Principles of training



Methods of Training

The method of training that is performed by athletes depends on the sport for which they are training. The different types of training and their uses are outlined below.

Continuous Training	Fartlek Training	Interval Training	Circuit Training	Weight Training	Plyometric
What? Physical activity which involves prolonged periods of aerobic exercise, such as running, cycling, swimming or rowing.	What? Activities such as running, cycling on different terrains, at different speeds and/or with different periods of work and recovery.	What? Intermittent periods of exercise with periods of recovery or low-intensity exercise.	What? A number of activities at stations designed to improve different components of fitness, with short periods of rest between each.	What? Involves reps and sets of isotonic muscle contractions (changes in muscle length) using a range of free weights and resistance machines.	What? An eccentric contraction is performed and followed by a concentric contraction to develop power.
Advantages - Requires little equipment - Easy to perform - Requires little assistance	Advantages - Can be made appropriate for different sports - Can prevent boredom due to changing terrain	Advantages - Can be performed with little equipment - Not time-consuming	Advantages - It can be made appropriate for all sports - Can work on all components of fitness	Advantages - Easy to track progress - Requires little assistance	Advantages - Can be performed with little equipment - Requires little assistance
Disadvantages - Can become boring - Takes up a lot of time - Doesn't improve anaerobic performance	Disadvantages - Can become boring - Hard to track progress - Easy to not put effort in	Disadvantages - Not appropriate for all participants - Can become boring - Requires high level of motivation	Disadvantages - Requires a lot of equipment - Difficult to set up	Disadvantages - Requires specialised equipment - Requires correct technique to avoid injury	Disadvantages Requires correct technique to avoid injury
Useful for Endurance performers, e.g. marathon runners and cyclists.	Useful for Intermittent sports, e.g. football, or multi-sports, e.g. cycling.	Useful for Those who are not aerobic, e.g. 400 m sprinters.	Useful for All athletes due to the manipulation of stations.	Useful for Strength-based athletes, e.g. weightlifters or rugby players.	Useful for Power-based athletes, e.g. long jumpers, shot-putters.
Considerations Important to monitor heart rate to stay in the aerobic zone (60–80% HR max). Comfortable footwear should be worn to prevent blisters.	Considerations RPE (Borg's 6–20 scale) can be used to monitor intensity. It is important to check equipment beforehand, such as the tyre pressure of a bike.	Considerations Rest periods should be long enough to allow for removal of waste products (e.g. lactate) and to reduce the risk of overexertion.	Considerations Manipulating work and rest periods to target different components. Equipment checks and inductions should be performed for safety.	Considerations One-rep max can be used to calculate the intensity (load) to lift. Spotters and correct techniques should be used for safety.	Considerations Creativity in activity depth jumping or ball slams. Fatigue avoided to help prevent injury from poor technique.



These methods can help to develop correct techniques for safe and effective training.

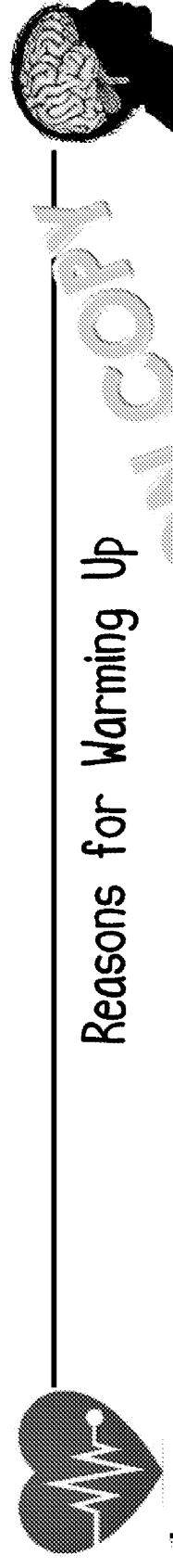
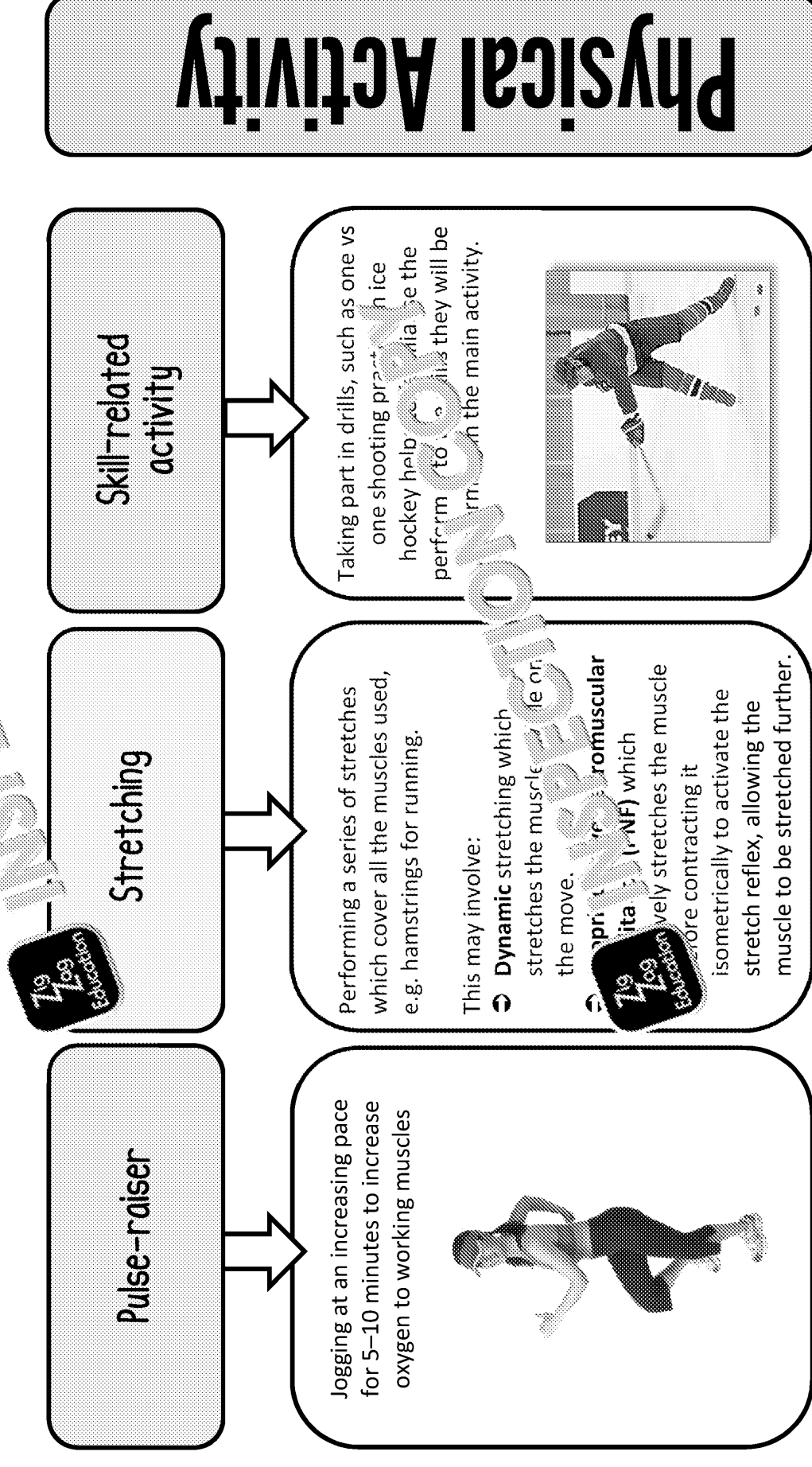
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Warm-up and Cool-down

Warm-up phases

It is important that a warm-up is performed prior to exercise in order to prepare the body for physical activity. A warm-up is designed to reduce the risk of injury and improve performance. The three main phases of a warm-up, examples of each component, and the benefits of each are outlined below:



Reasons for Warming Up

Physiological reasons

- ✦ To increase body temperature
- ✦ To increase the elasticity of muscles and the range of motion at a joint (flexibility)
- ✦ To provide an opportunity for the athlete to perform full-intensity exercise
- ✦ To reduce the chance of the athlete being injured during competition
- ✦ To increase the amount of oxygen delivered to the active muscles

Psychological reasons

- ✦ To mentally prepare for competition by focusing in the zone
- ✦ To increase motivation levels
- ✦ To familiarise with skills and reduce anxiety
- ✦ To calm the performer down and control arousal levels
- ✦ To improve focus on the activity ahead

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The Skeletal System

Shape and support

A combination of fused and unfused bones allows the body to be stable while also moving at particular joints, e.g. a rugby player in a scrum can push using their shoulders while also moving their arms to maintain balance. **Ligaments** hold the bones of the body together in position.



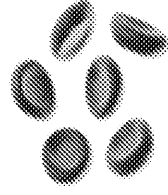
Key terms:

Tendons – attach muscle to bone to assist with movement

Ligaments – join bone to bone to provide stability with movement

Functions of the skeleton

Protect internal organs from injury, e.g. during contact sports, such as rugby, the cranium (skull) protects the brain from injury in the tackle.



Red blood cell production

Red blood cells are produced in the marrow of long bones. They carry oxygen to our working muscles and release energy from the mitochondria.

Muscle attachment for movement

Bones provide a surface for muscles to attach via **tendons**. When muscles contract, they cause movement, e.g. the biceps attach to the radius and ulna and pull the lower arm towards the upper arm when they contract.

Types of synovial joints and their movements
Different joints allow for different movements. There are two outlined below. Notice that each joint allows a different degree of movement.

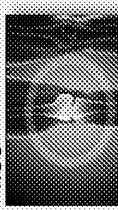
Hinge joint

These can only move in one plane of movement but are relatively stable.

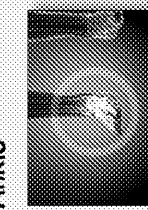
Elbow



Knee:



Ankle:



Extension – increasing the angle between the upper arm/leg and the lower arm/leg by straightening at the joint, e.g. lowering a dumbbell during a biceps curl

Flexion – Decreasing angle between the upper arm/leg and the lower arm/leg by bending at the joint. E.g. backswing of the knee to kick a rugby corner

Pivot joint

These joints allow rotation around a single axis.



Rotation – turning of the atlas bone in the axis bone, e.g. when turning the head in rugby to look at a player you're passing to



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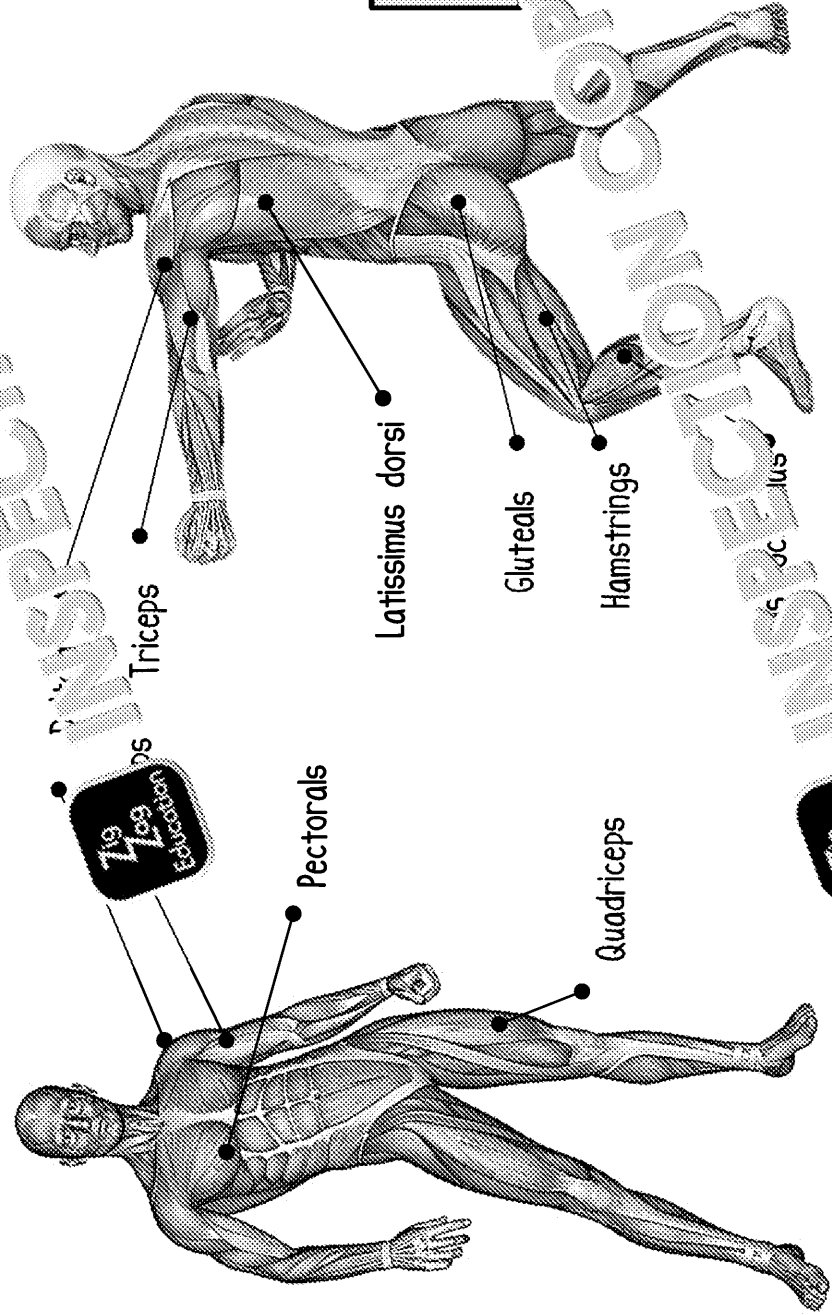
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The Muscular System

Major Muscles of the Human Body

The main role of skeletal muscle is to allow movement by working with the skeletal system. Muscles attach to bones via **tendons** and contract to pull on the bones to cause movement.



Type I: Slow twitch

Head in colour

- Dense supply of mitochondria
- Aerobic respiration
- Dense supply of myoglobin
- Don't fatigue easily

Importance in sport:
Type I: Useful for long-distance performers such as marathon runners

Muscle types

You may think there is only one type of muscle. However, muscles come in three main types and have different characteristics:

Cardiac muscle: 	Skeletal muscle: 	Smooth muscle:
Characteristics: - Found in the heart - Not under conscious control - Allows the heart to beat with a continuous rhythm - Resistant to fatigue	Characteristics: - Under conscious control (voluntary) - Used for movement - All the time - Can become fatigued	Characteristics: - Not voluntary - Control our internal organs - Important for bodily functions - Allow vital processes at night while we sleep
Role in sport: Ensures that the oxygen demand of the body can be met	Role in sport: Responsible for moving the body in order to perform skills	Role in sport: Responsible for breathing in order to assist exercise

*you do not need to know the names of these muscles

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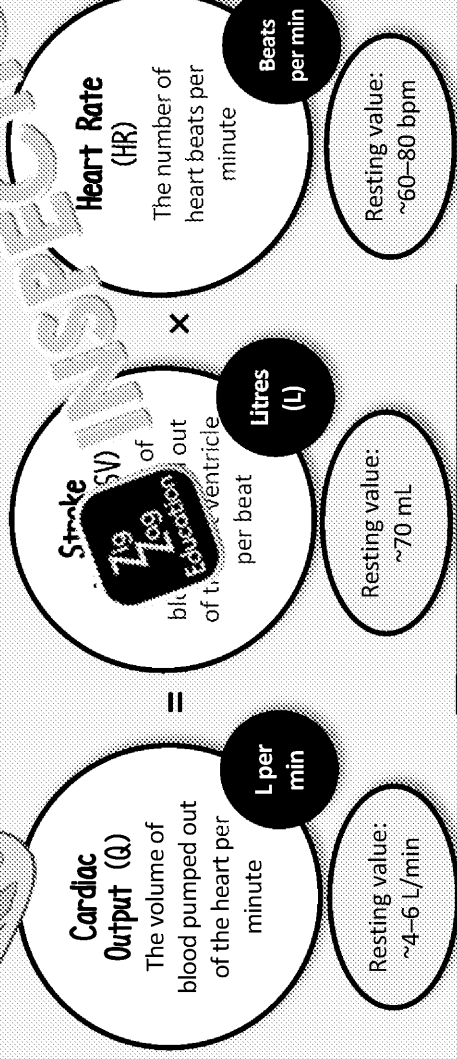


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The Cardiovascular

Cardiac values

The heart needs to supply the muscles with oxygen and nutrients required for movement. During exercise, where the demand for this is greater, heart rate and stroke volume are both increased.



See page 103 for the changes in heart rate during exercise.

Blood Pressure

The pressure exerted on the artery walls is used as a measure of health.

Blood pressure readings are given as **systolic** over **diastolic** pressures (in mmHg).

Systolic pressure – the pressure on the artery walls when the heart is contracting and blood is leaving the heart.

Diastolic pressure – the pressure on the artery walls when the ventricles are relaxing and are filling with blood.

Resting values:

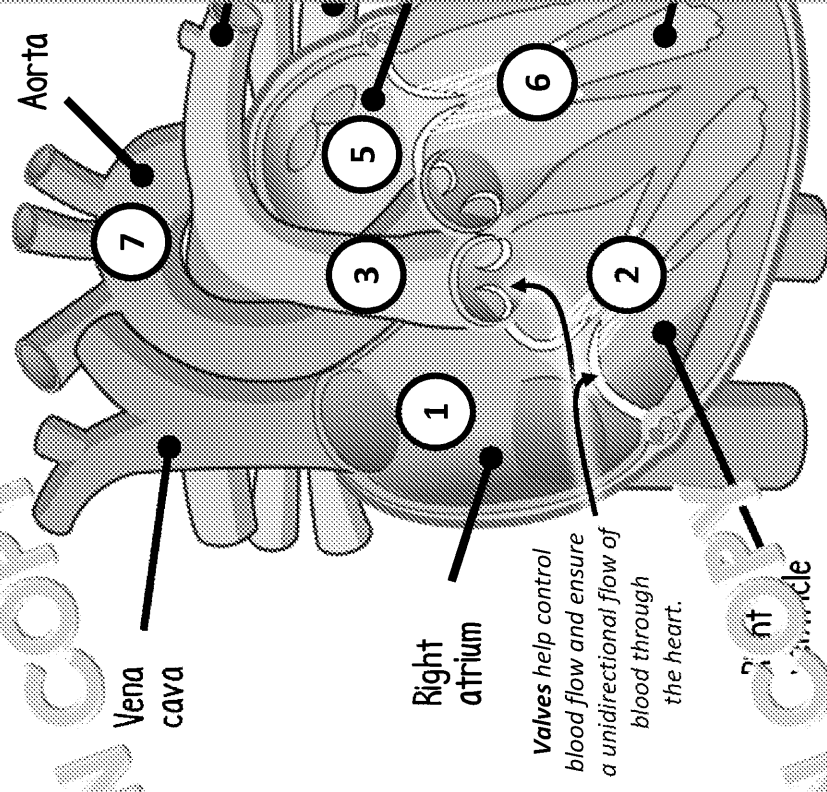
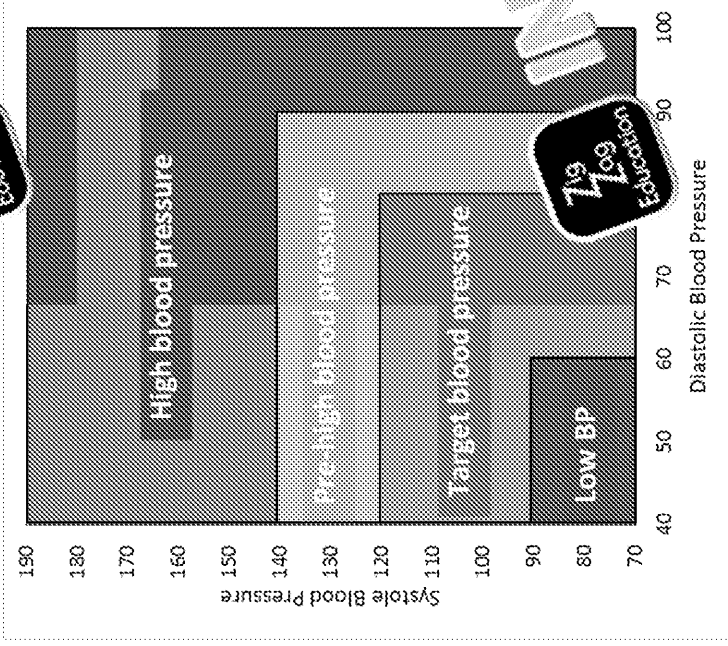
High blood pressure (hypertension) – >140/90 mmHg

Pre-high blood pressure (pre-hypertension) – 120/80 to 140/90 mmHg

Healthy blood pressure – 90/70 to 120/80 mmHg

Low blood pressure – <90/60 mmHg

During exercise, systolic blood pressure increases as there is more blood leaving the heart. Diastolic pressure stays roughly the same.



The flow of blood between different structures is controlled by valves. The blood is pushed under high pressure to flow through them, but prevent it from flowing back in the opposite direction.

Blood is pumped around the heart and to the lungs in the order shown in the diagram:

- 1** Deoxygenated blood flows into the **right atrium** via the vena cava.
- 2** The blood passes into the **right ventricle** (as the valve between the right atrium and ventricle opens).
- 3** The right ventricle contracts to force blood out of the heart into the **pulmonary artery** (the valve in this artery then closes).
- 4** At the lungs, gaseous exchange occurs and **oxygen** is taken into the blood. The blood becomes **oxygenated**.
- 5** The **oxygenated blood** is transported to the **left atrium** via the **pulmonary vein**.
- 6** Blood then flows into the **left ventricle** (the valve between the right ventricle and left atrium opens and then closes).
- 7** Blood is pumped out of the heart and transported to the **body** via the **aorta** (the valve in this artery opens and then closes).

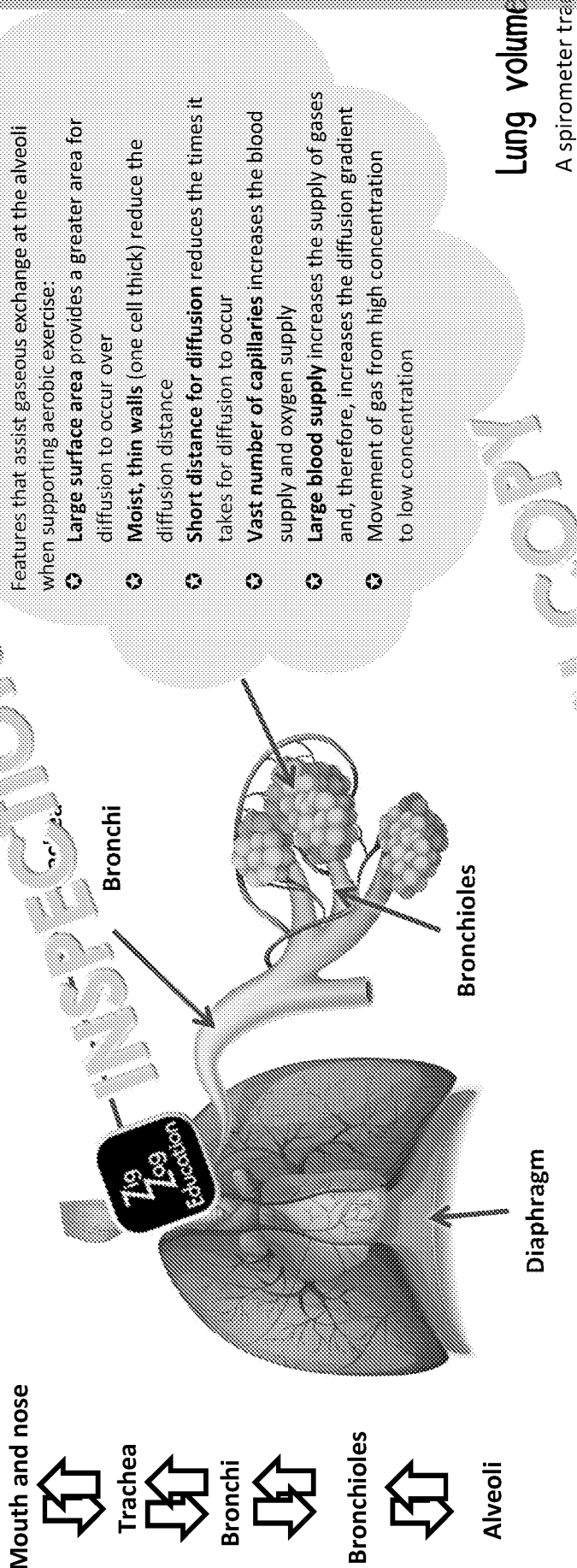
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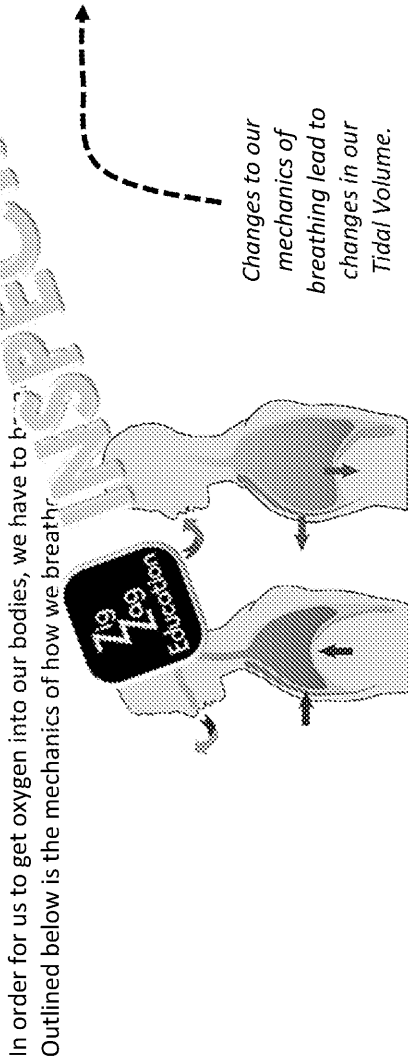
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The Respiratory System

Structure of the respiratory system and pathway of air



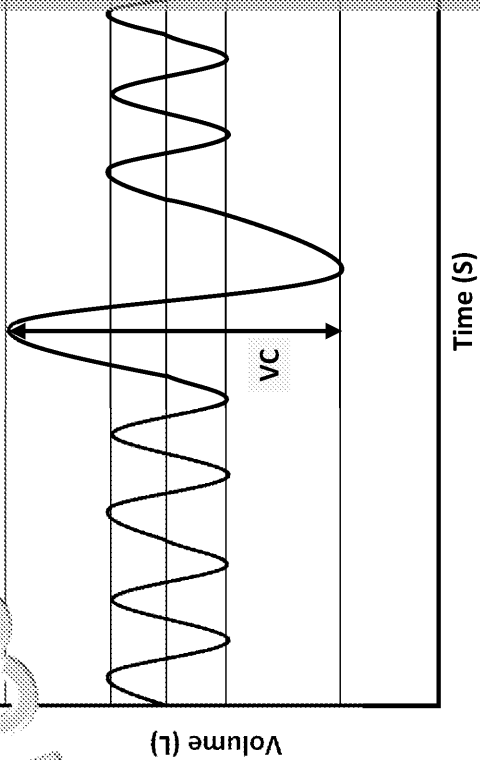
The Mechanics of Breathing



Muscles		Expiration	Inspiration	Changes during exercise
External		Relax	Contract	More forceful contraction of intercostal muscles
Internal		Contract	Relax	
Ribs		Lower	Rise	More forceful contraction of the diaphragm
Diaphragm		Relax and contract	Contract and relax	
Lung volume			↑	Greater pressure difference between the lungs and environment
Air pressure in lungs		↑	↓	
Air pressure is relatively high in...		The lungs	The environment	

Changes	TV	VC	RV	VE
	Tidal Volume: normal amount of air inspired/expired	Vital Capacity: largest volume of air that can be forcibly expired following largest inspiration	Residual Volume: the air left in the lungs prior to maximal expiration	Minute Ventilation (VE): the amount of air a person inspires or expires in a minute

Spirometer at Rest



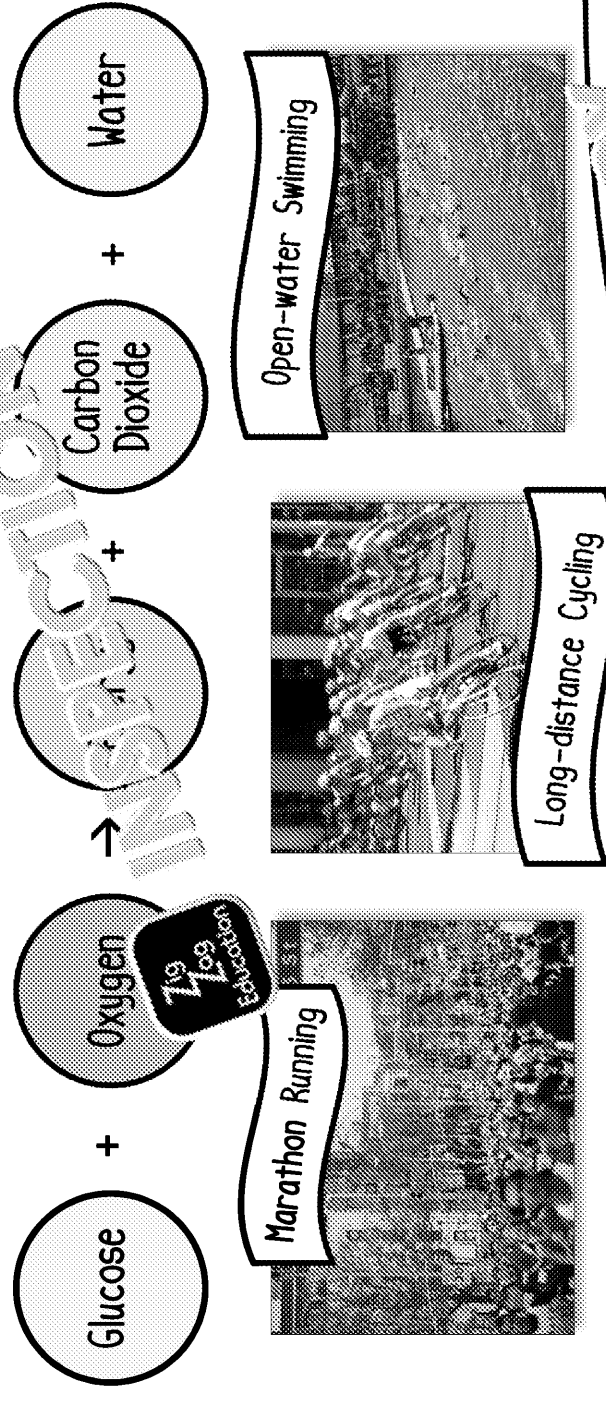
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Aerobic Exercise

Aerobic exercise is any form of exercise which is completed at an intensity that allows a plentiful supply of oxygen to be taken in by the lungs and used by the body.

Below is a summary equation and sporting examples of aerobic exercise:



These sports are all performed at a relatively **low intensity** and for a **prolonged period of time**.

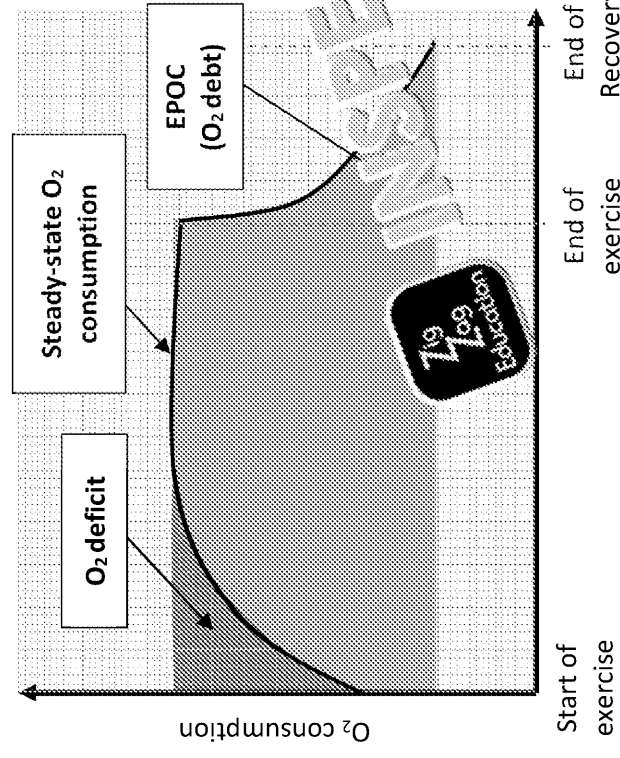
Aerobic and Anaerobic E

Oxygen debt

Breathing rate remains elevated following exercise to allow waste products to be removed and energy stores to be restored.

- Also known as excess post-exercise oxygen consumption (EPOC)
- EPOC is greater following **anaerobic exercise** as the body relies on energy production without oxygen

The graph below outlines this phenomenon:



Nutrients for fuel/recovery

Aerobic exercise:

- Carbohydrates in the form of stored muscle glycogen are used as the primary fuel source
- Fats are used as a secondary fuel source during very low-intensity exercise or when glycogen stores are depleted
- Proteins are used during ultra-endurance events

Anaerobic exercise:

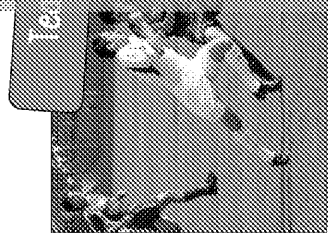
- Carbohydrates are also used during anaerobic exercise. Glucose in the blood is used from glycogen that has been broken down.

Carbohydrates are the main nutrient used to replenish muscle glycogen stores post-exercise.

The more **hydrated** the body is, the less strain that will be placed on the heart. This increases the contribution of **aerobic fuel sources** to energy production and can help delay fatigue. However, it is important to avoid over-hydration as it may over-dilute important electrolytes such as sodium and potassium.

See page 3 for the dangers of under-hydrating.

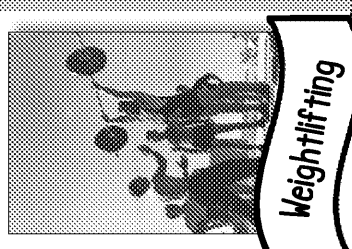
Often, sports require different scenarios of the same sport.



Middle-distance athletes rely on aerobic metabolism in order to produce energy. However, sprint finishers rely on anaerobic metabolism in order to produce a short burst of energy.

The **anaerobic threshold** is the point at which the body switches from aerobic metabolism to anaerobic metabolism.

Creatine phosphate
→ Limited around second



Weightlifting

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Short- and Long-term Effects

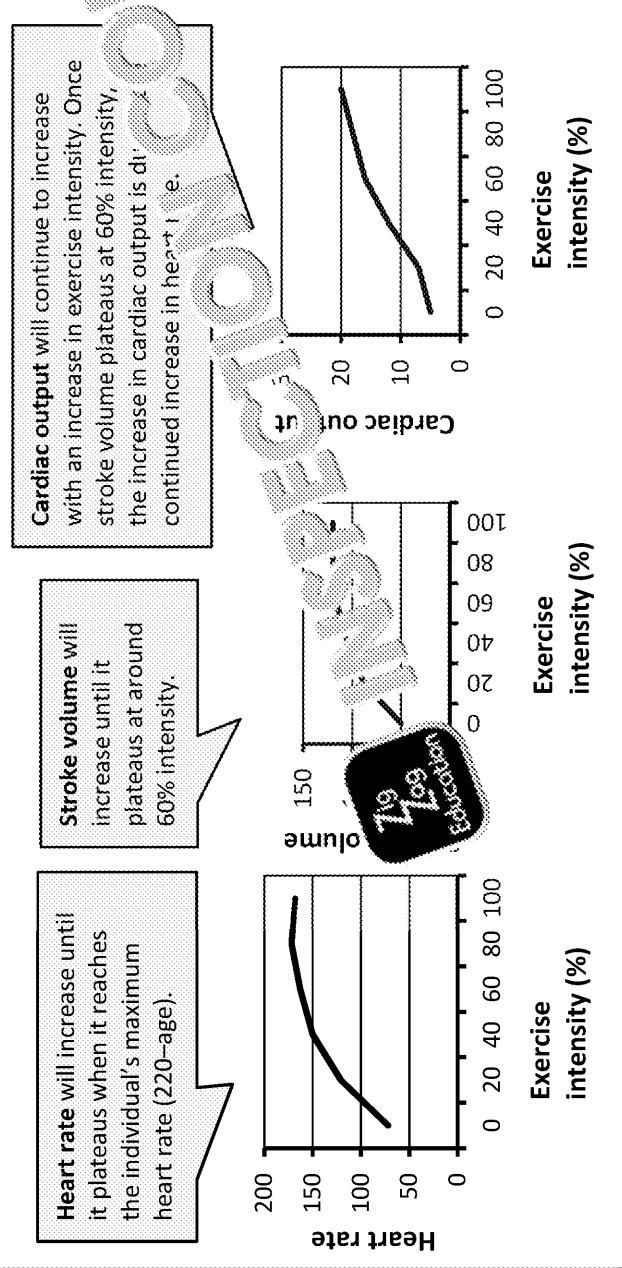
Exercise leads to a number of changes to the body. Some of these effects take place during the exercise itself, others occur after the exercise has finished.



Short-term Effects of Exercise

During exercise, the heart rate and stroke volume increase in proportion to the increase in the intensity of exercise until a plateau is reached. This results in a greater cardiac output which provides the body with greater levels of oxygen during exercise.

The changes to cardiac function during exercise are displayed in the graphs below:



Heart rate, stroke volume and cardiac output during exercise

During high intensity exercise, the body will be able to maintain intensity for longer due to an increased tolerance of lactic acid.

A reduction in resting heart rate called **bradycardia** occurs, which reduces the strain placed upon the heart.

Remember...

$$\text{Cardiac Output } Q = \text{Stroke Volume } SV \times \text{Heart Rate } HR$$

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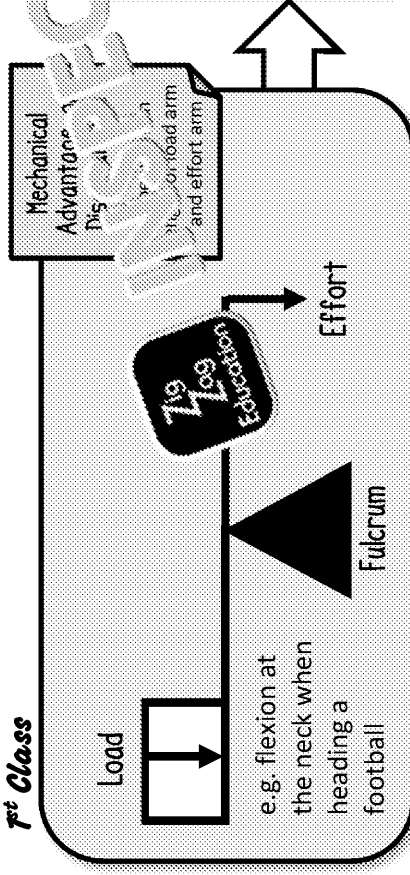


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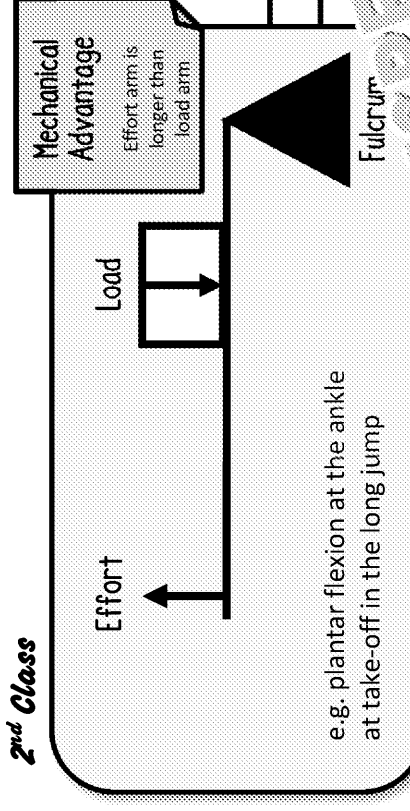
Lever Systems

Movement at the joints occurs by one of the three classes of levers.

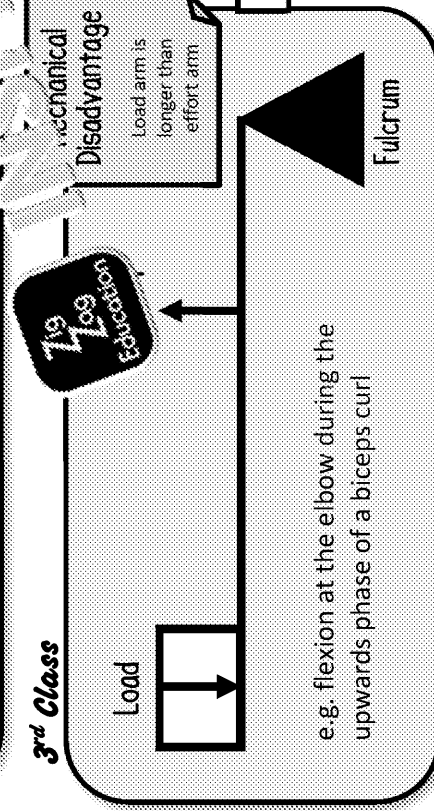
1st Class



2nd Class



3rd Class



See p.9 for the different types of movement.

Basketball shooting

Movement at the elbow:
Flexion (preparation)
Extension (execution)

Lever system:
1st class (L-F-E)

Load: (ball)

Fulcrum: (elbow)

Effort: (Triceps)

Javelin throw

Movement at the Elbow:
Extension (pull-back)
Flexion (throwing phase)

Lever system:
1st class (E-F-L)

Effort: (triceps/biceps)

Push-up

Movement at the elbow:
Flexion (downwards)
Extension (upwards)

Lever system:
1st class (L-F-E)

Load: (body weight)

Fulcrum: (foot)

Effort: (triceps)

Jumping

Movement at the ankle:
Plantar flexion* (take-off)
Dorsiflexion* (landing)

Lever system at the ankle:
2nd class (E-L-F)

Effort: (gastrocnemius)

Cycling

Movements at the knee:
Extension/Flexion

Lever system at the knee:
3rd class (L-E-F)

Load: (pedal)

Fulcrum: (knee)

Effort: (hamstring and quadriceps)

Biceps curl

Movement at the Elbow:
Extension (downwards)
Flexion (upwards)

Lever system:
3rd class (F-E-L)

Fulcrum: (elbow)

Effort: (biceps)

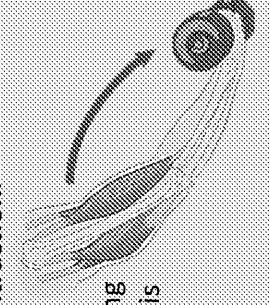
Revision Success Tip!

Remember...
1 2 3
F L E
The letter is the middle part of the lever system

Muscles contract in two ways:

- Isotonic contractions:** when muscles change length as they contract.
 - Concentric** – shorten as they contract
 - Eccentric** – lengthen as they contract
- Isometric contractions:** when muscles stay the same length as they contract.

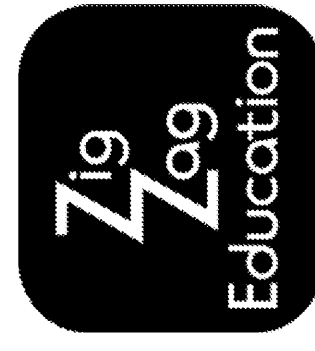
The biceps contracts and shortens to cause flexion of the elbow. This is isotonic concentric contraction.



The biceps is still contracting to lower the weight, but this time is lengthening as it contracts. This is isotonic eccentric contraction.

Isometric contraction would occur if the dumbbell was held at a midway point. Biceps would contract but not change length.

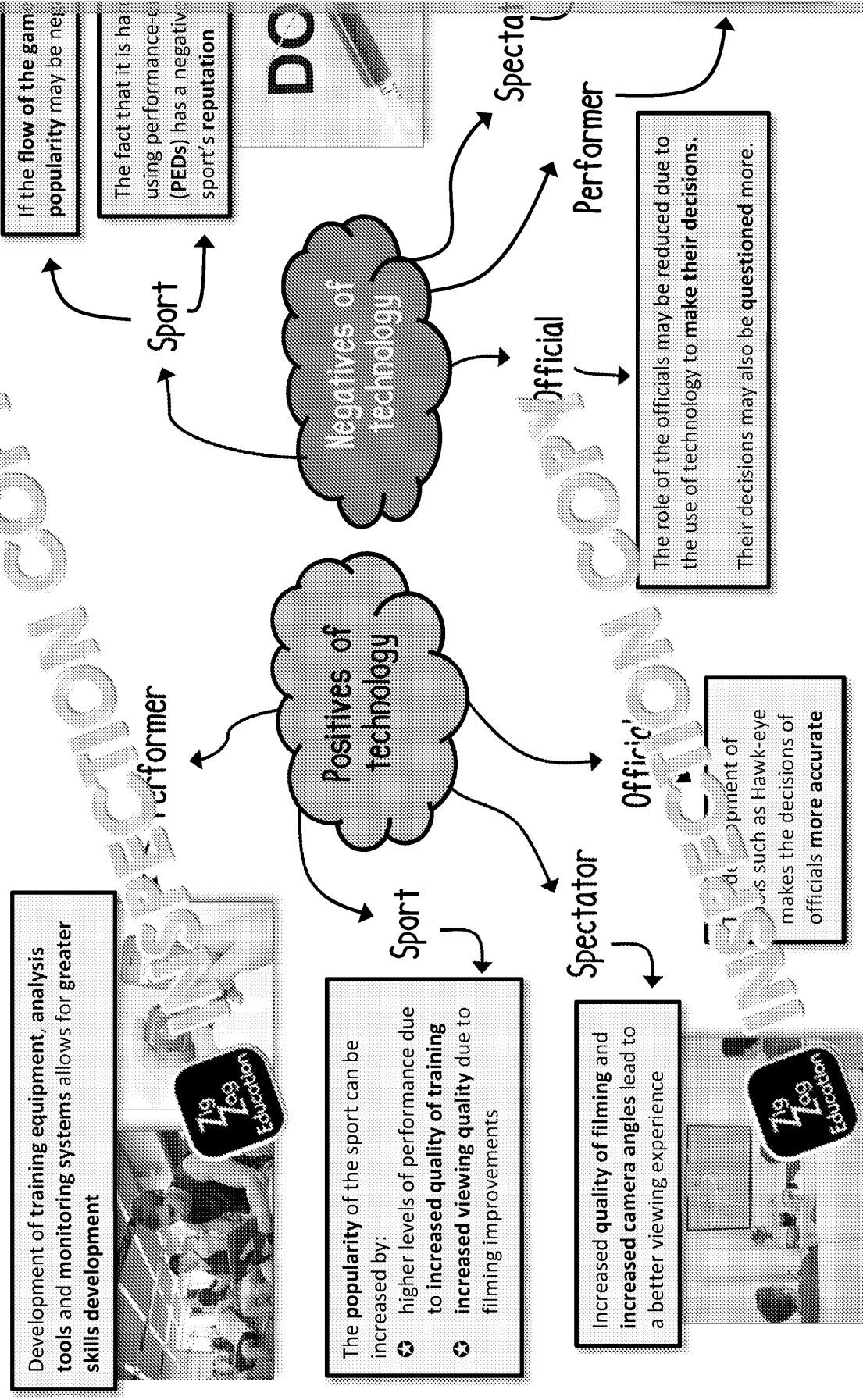
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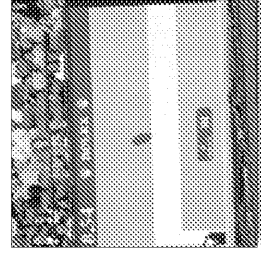
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Sports Technology

Technology has many uses in sport and can be used to benefit performance, coaches, officials and spectators. How?

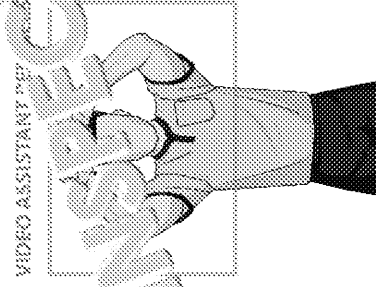


Decision making by officials



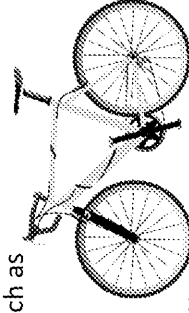
Hawk-Eye is a multi-camera system that tracks the movement of a ball. It is used in tennis to allow players to challenge umpires' decisions if they think they have made an incorrect call.

The video assistant referee (VAR) is used in football and television match officials (TMOs) in rugby to help officials review key decisions.

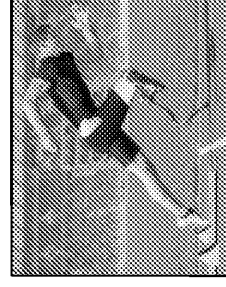


Enhancing performance

Use of composite materials such as carbon fibre in the frame, the pedals, the handlebars and the wheels. The use of lightweight, the bikes can also gain speed easily.



Prosthetics such as the running blade, which uses stiff composite materials such as carbon fibre to generate a rebound effect.



Other examples include:

- Graphite
- Aerodynamic
- Moisture-wicking
- Performance-enhancing
- such as GP

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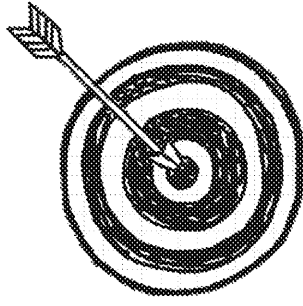
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Goal-setting

SMART Principles

When setting goals for yourself or for an athlete/team, it is important to remember that goals should always be **SMART**!

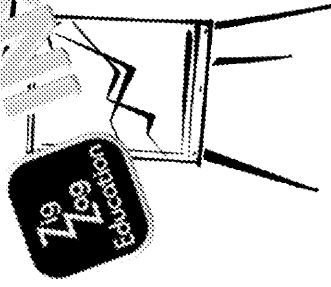
Specific



Goals should be focused on improving things which are needed in the sport being trained for, as this will ensure that it leads to improved performance.

e.g. an 800 m runner may aim to improve the final 200 m split time of the race.

Measurable



You should be able to determine how well you have performed (e.g. with a score) as this allows you to see if your goal has been met.

e.g. an 800 m runner may aim to decrease the final 200 m split time from 30 seconds to 28 seconds.

Agreed

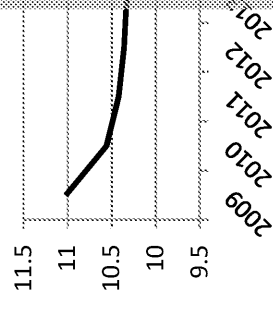


The performer should set goals with the support and guidance of a significant other, such as a coach.

e.g. consultation with coach to develop a training programme focused on speed endurance, including interval sprints and anaerobic exercises.

Realistic

100 m time



The target should be realistic, taking into account the athlete's circumstances to ensure they are able to reach it.

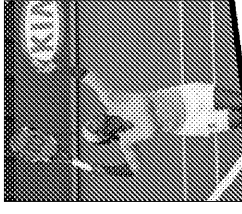
e.g. improving final split time to 10s to help them improve their performance in the 200m work towards a personal best.

More examples

Goals can be used in many ways:

Improving first serve accuracy by 5% in 3 months' time.
 Seeking guidance from tennis coach to implement a tennis routine with serving drills. This can improve overall performance and success of winning points on their own serve.

Gaining selection into a football team.
 Up of a football team across the games across the season to gain confirmation from the coach of a new important role in taking up.



Revision Success Tip!

It is important that you can identify the relationship between different concepts and theories in sports psychology and how they can all contribute to improved performance. For example, understanding the relationship between motivation and feedback and guidance methods are best suited to different skills and abilities. Feedback given can impact how information is processed by an athlete.

- Understanding the relationship between motivation and feedback and guidance methods are best suited to different skills and abilities.
- Feedback given can impact how information is processed by an athlete.



Impact of goal-setting on health, well-being and performance

Goal-setting can be used to achieve goals related to health, well-being and performance. It does so through the following:

- ❖ Increases **motivation**
- ❖ Focuses **attention**
- ❖ Improves **effort levels**
- ❖ Increases **concentration**
- ❖ Increases **adherence** to a training programme
- ❖ Increases **perseverance and resilience** following setbacks
- ❖ Helps develop **strategies for success**

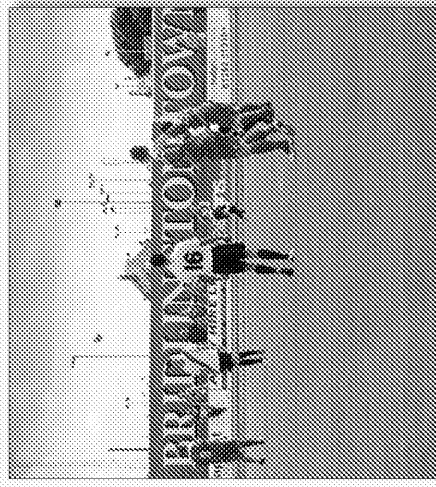
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Input

- 1 Performers receive information from their senses (the 'display').
- 2 The information is processed by the performer.
- 3 The performer will use selective attention which involves focusing on a specific stimulus and ignoring irrelevant information.

Basic information of a footballer receiving and playing

The footballer will receive information from his senses about the position of himself, the opponent and the ball. He will selectively ignore the fans shouting from the sidelines.



- Information
- Display (senses)
- Selective attention

The **short-term memory** attends to information received by the senses, whereas the **long-term memory** selects an appropriate response by using past experiences as a reference.

Information Processing and Feedback

Information processing is the process by which athletes respond to the changing environment that they are in.

Feedback

- 1 Feedback is received in two ways:
 - Internal – how the movement felt
 - External – from other sources, such as teammates or your coaches
- 2 Positive feedback reinforces actions
- 3 Negative feedback helps identify areas for improvement

The response to the output was a goal being scored. This helps reinforce the actions of the player. A lofted pass and motivates the performer to reuse this skill when next he is in a similar situation. The player will know how the skill input from his senses will feel when performed correctly.

Feedback can provide:

- Knowledge of results** – Focused on outcomes (e.g. finishing position in a race)
- Knowledge of performance** – Focused on how a task is completed (e.g. use of tactics to win a race)



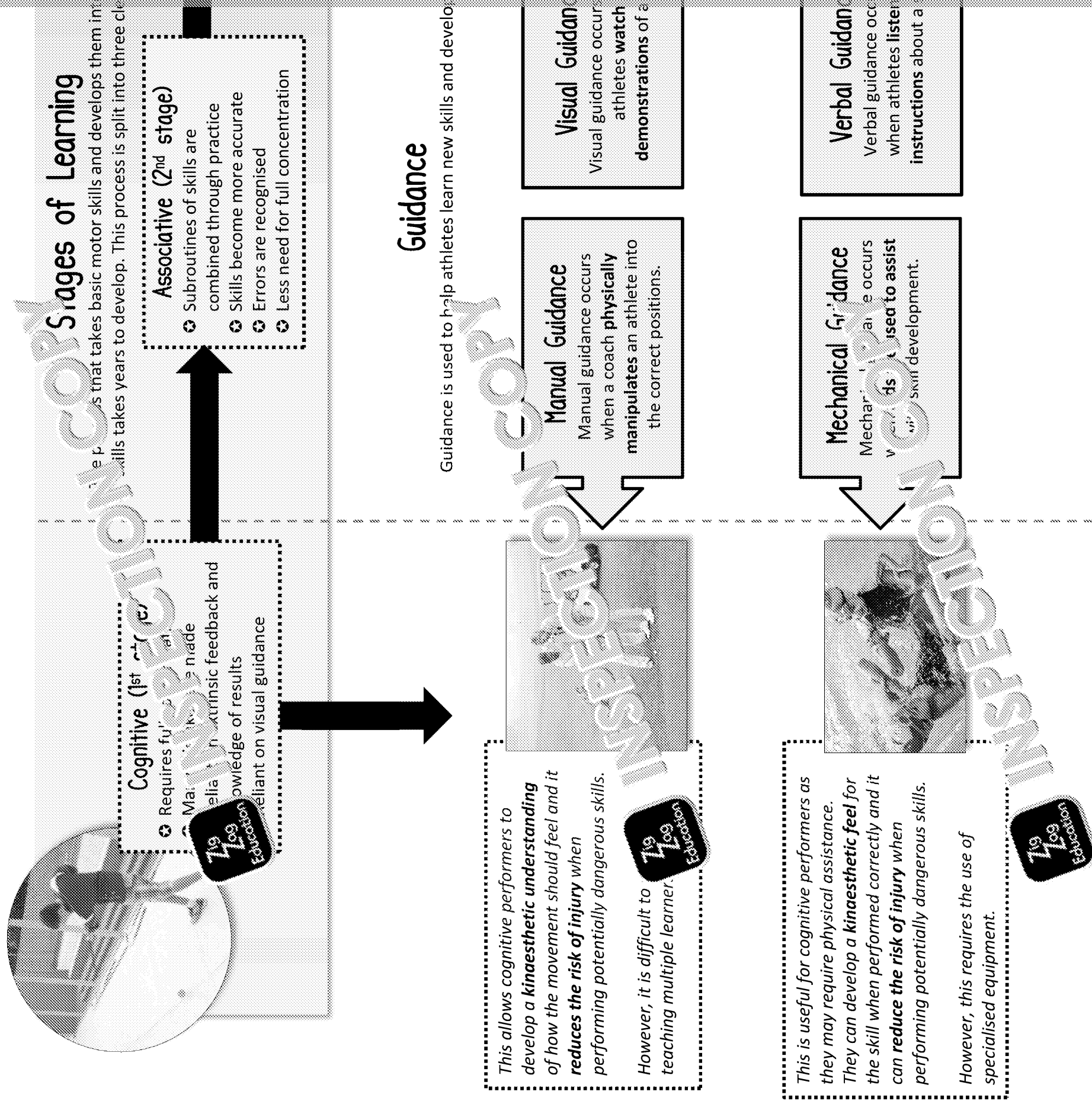
- Information
- Muscles initiate

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Guidance and Stages of Learning



Motivation and Mental preparation

Mental preparation

It is important for performers to prepare mentally as well as physically for their performance. Visualisation techniques are among the most common methods of preparing for performance.

Method

How to do it

Visualisation

Creating mental images of specific movements, scenarios, or desired outcomes. Used before or during an event to visualise successful execution of skills.

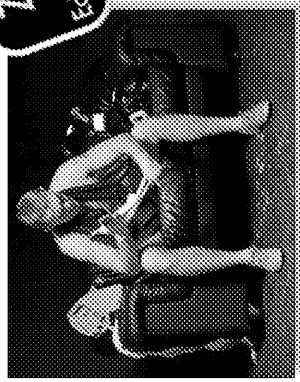


Imagery

Broader term that uses all senses to create mental representation linked to sport.

Mental rehearsal

The athlete has a mental run-through of how they will perform a skill.



- Used before a competition
- The athlete should create a mental picture of their performance
- This picture should focus on the skills they will need to perform
- The athlete should picture positive outcomes

- Use of various senses, e.g. hearing to accompany visual pictures
- Create scenarios in the mind, such as crowd cheers after scoring
- Focus on positive outcomes

- Can help make a successful performance seem more realistic to improve confidence
- May involve imagining a perfect scenario
- May be practised before particular movements, such as a penalty in football

Motivation

Individuals are more motivated when they receive more feedback.

These can be either intrinsic or extrinsic, depending on the source of the motivation.

Intrinsic motivation

- If a person is motivated by internal factors, they will receive the motivation from within.
- Examples of intrinsic motivation include pride in achievement, satisfaction, and the enjoyment of the activity itself.

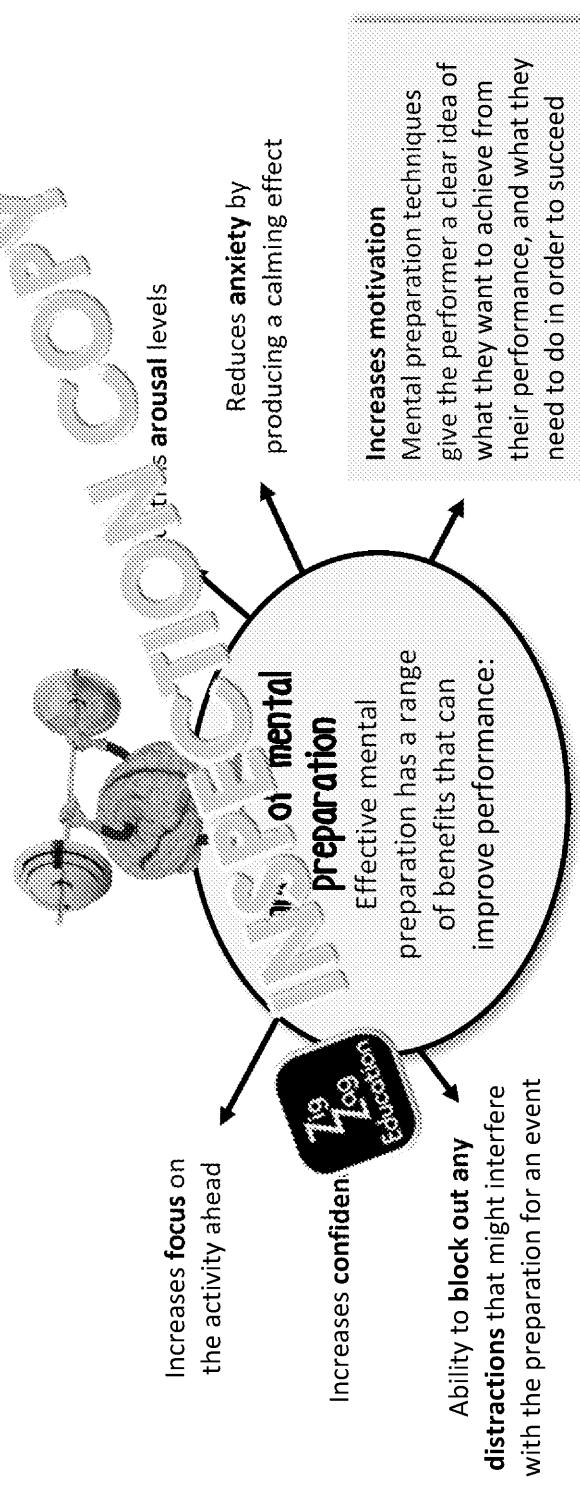
Effect of intrinsic motivation

Considered the most powerful, it results in greater effort when the task is challenging and is more effective in the long term.



Effect of extrinsic motivation

Extrinsic motivation is derived from external sources, such as rewards, praise, or competition. However, it can sometimes lead to a decrease in motivation if the rewards are removed or if the individual feels that the activity is being done for the reward rather than for the enjoyment of the activity itself.



Skills and Types of Practice

Skill

Skills are learned actions which allow you to complete a task or action with success.

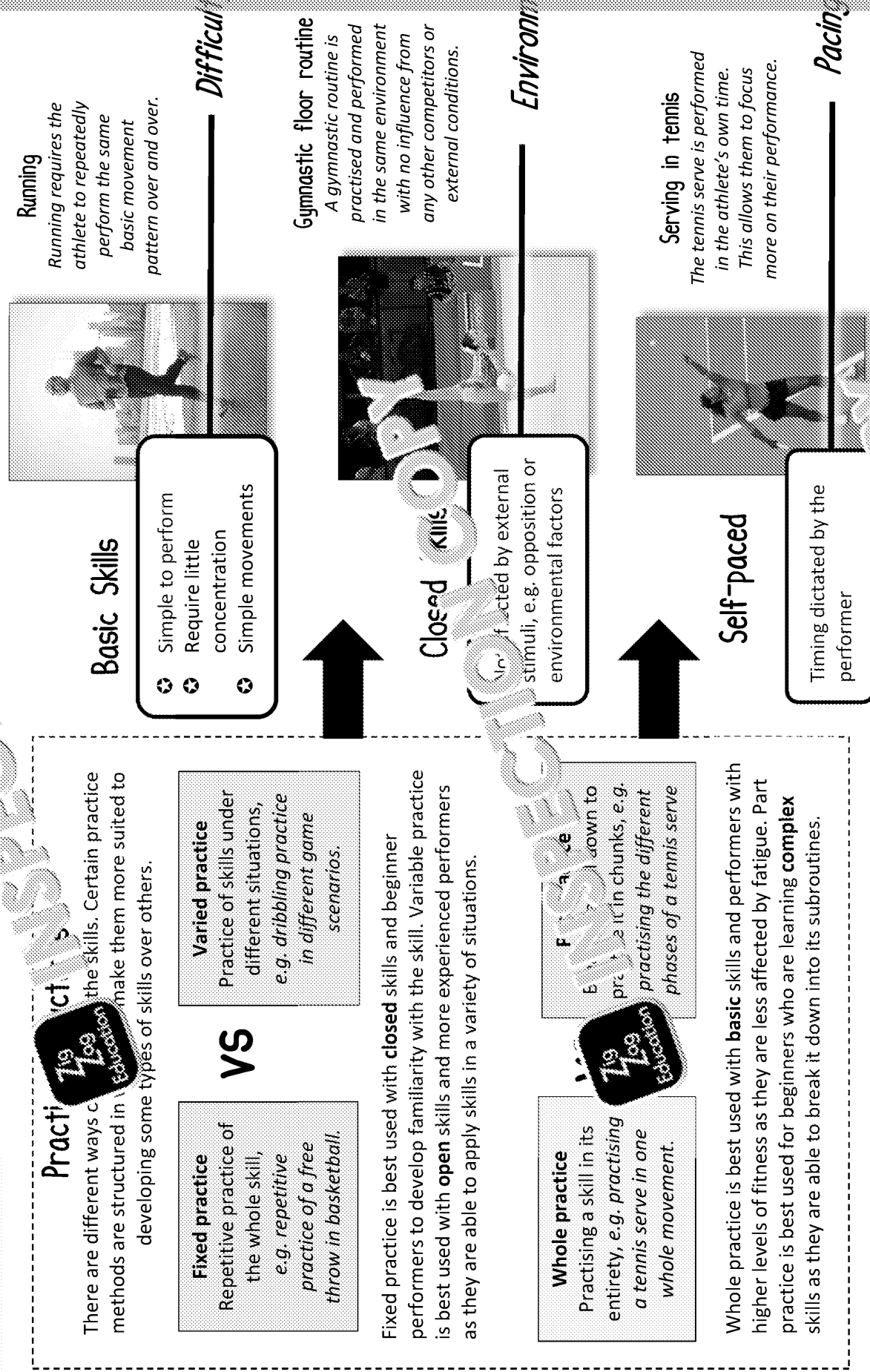
Ability

Ability is the innate traits which provide the potential for someone learning a skill.

VS

Skills Continua

Skills have many characteristics and these can change in different scenarios and situations. This makes it challenging to categorise skills; therefore, they have been placed on a continuum.



Characteristics of Skilled Performers

Movements will often meet the following criteria to be considered skilled.

Accuracy

The techniques involved in the skill are performed with precision, e.g. a gymnast performing the vault completes each subroutine to achieve a close-to-perfect score.

Consistency

Skills are performed with the same level of success, e.g. a football player who is managing to score from a lot of free kicks.

Technique

Skills are performed with a technical element which makes them successful, e.g. striking a football with the knee over the ball to keep it low and on target.

Efficiency

The movements are performed in a smooth motion, e.g. the backswing and forward swing of a tennis shot occur in one linked movement.

Effectiveness

The skill achieves a positive outcome which is usually the intended outcome, e.g. a golf ball that is hit straight off the tee with the driver.

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Age

- It can be harder for elderly people to **access facilities** if they are unable to walk / take public transport.
- Most **media coverage** focuses on young professional athletes which may discourage older individuals from participating.
- Discrimination** against older adults, e.g. a lack of appropriate activity provision to account for lower fitness levels.
- Older individuals may have more difficulty as looking after children, which may impact on their ability to participate. Young and old are likely to have more in common than middle-aged working adults.
- Young people may not have enough **money** to pay membership fees for gyms or recreational fees for teams.
- Young people rely on parents' transport to get them to training etc.
- There may be a lack of **education** on the health benefits of physical activity for older adults.

Schools can have a major influence on participation in sport:

- ✓ **School PE programme** – A well-designed and inclusive PE programme with a variety of sports can expose students to different options.
- ✓ **Extracurricular activities** – Provide a more competitive environment for students to develop skills and build confidence. They can also help develop a sense of belonging which can lead to commitment in that sport throughout life.
- ✓ **Wider curriculum** – Integrating sport into other subjects, through project-based or themed lessons, can increase awareness and engage students.

- The activities that women take part in can be affected by how they view the world, e.g. women might be less likely to take part in rugby if they view it as masculine.
- The **lack of female role models** has a negative impact on participation.
- There may be a **lack of opportunity** for some females to **access** certain sports, such as female rugby teams.
- Female sport receives **less media coverage**, which negatively impacts on participation.
- Gender stereotyping** still exists within some sports, such as boxing, considered masculine. However, with an increase in female role models and media coverage in these sports, this is continuing to improve.
- In modern times, the **family dynamic** has changed. Women have more opportunities to be mothers, and their role as mothers.
- In the past, women had less time due to family commitments, but now changed and women are able to participate as mothers.
- The compulsory inclusion of **PE** in the National Curriculum in schools means both genders are exposed to physical activity; however, sports played depend on schools'/teachers' choice.
- The **wage gap** between men and women is decreasing, providing women with greater opportunities to take part in physical activity.

Personal experiences

- Personal experiences may impact on an individual's participation.
- ➔ **Early childhood experiences** – experiences at a young age can influence an individual's participation in sport, e.g. traumatic events may lead to a person's reluctance to participate.
- ➔ **Family influences** – an individual's social circle may impact participation. Experiences such as bullying or exclusion can discourage participation.
- ➔ **Serious injury / trauma** – debilitating injuries, e.g. a broken leg, will have lasting physiological and psychological impacts, confidence to return to participating.
- ➔ **Role models** – influential athletes or family members can inspire participation in sport.

Incorporating sport and physical activity across the **school curriculum** can help develop children's **physical literacy, health and well-being**, which can positively impact on a child's development.

- **Physical literacy** is the development of fundamental movement skills, confidence and motivation to engage in various sports and physical activity. It goes beyond the physical competence and involves cognitive and emotional aspects which can help contribute to a child's overall health and well-being (see p. 1). It promotes physical, cognitive and social development and can encourage lifelong habits.

Factors affecting participation

Strategies to improve participation

- Promotion:**
 - ✓ Advertising opportunities to get involved
 - ✓ Offering trials / taster sessions
 - ✓ Providing discounts and other financial incentives, e.g. free transport
 - ✓ Delivering campaigns/initiatives to raise awareness / increase participation
- Provision:**
 - ✓ Funding a range of facilities to cater to local communities
 - ✓ Providing a range of activities for different people
 - ✓ Offering flexible opening sessions/classes throughout the day to fit with work and school schedules
- Access:**
 - ✓ Improving travel routes to local facilities, e.g. bus routes
 - ✓ Installing accessible features for people with disabilities, e.g. automatic doors for wheelchair users
 - ✓ Extending the opening hours for facilities

Promotion strategies have aimed to increase involvement of people who may be disadvantaged when participating in sport, e.g.

- ✓ **Adapted sports** for people with disabilities

✓ Campaigns such as **This Girl Can** for female participation

Reformative policies also aim to remove barriers faced by certain groups. Examples include anti-racism campaigns such as **Kick It Out** in support of **Black Lives Matter**.

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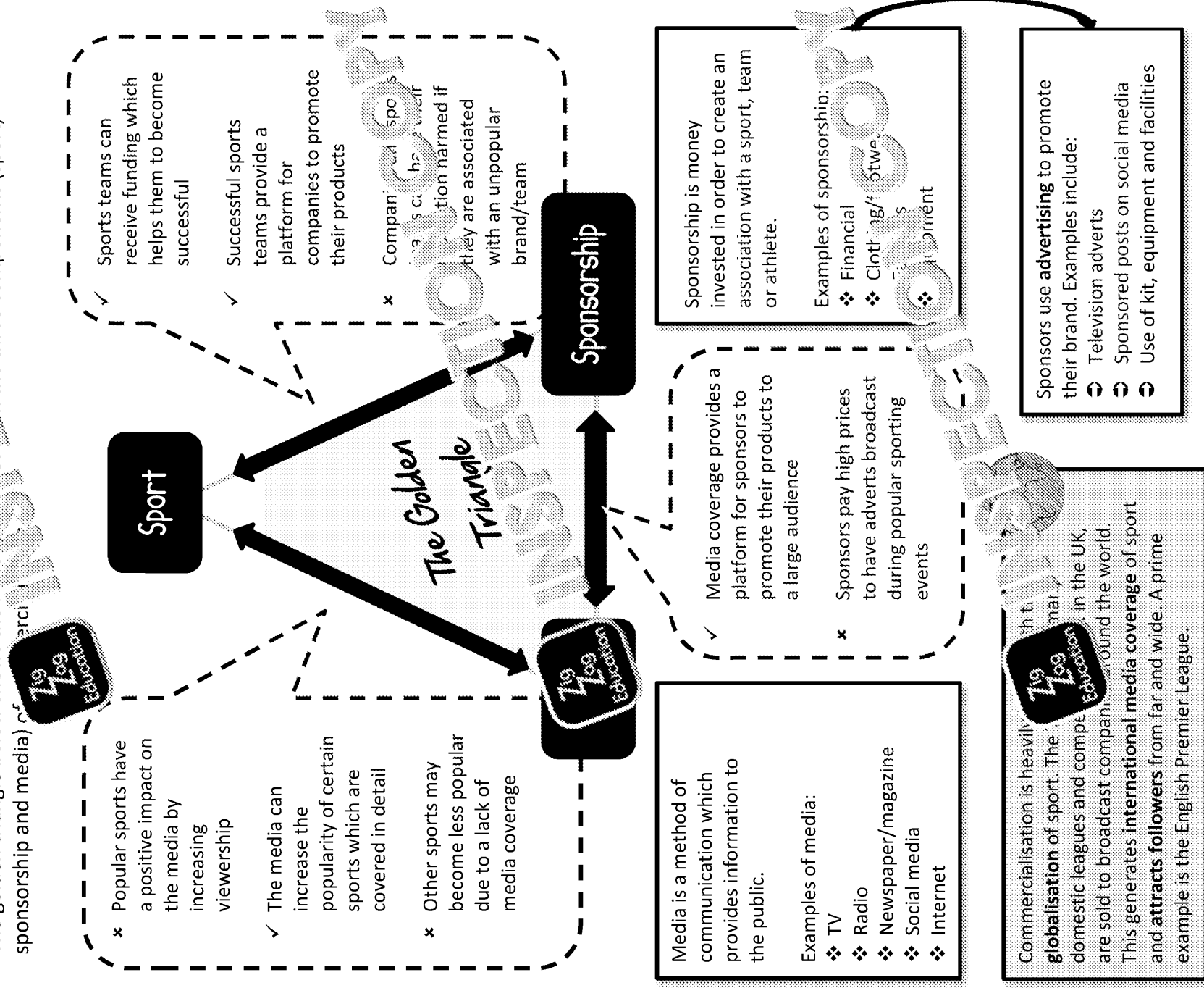
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Education

Commercialisation of

Commercialisation

Commercialisation is the process by which a product is promoted to an audience in such a way that it occurs when companies form relationships with sports teams / athletes / the media to promote something.

The golden triangle below shows the relationship between the three components (sport, sponsorship and media) of commercialisation.



Sponsorship and the Media

Popular sports, teams and athletes often use the media to improve their popularity and increase commercial activity can be positive or negative.

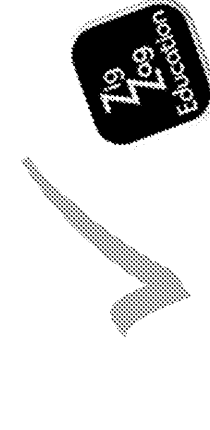
Positive Effects	
Sponsors	Media
Performers receive increased wages and financial support , as a result of commercialism. This money can enable performers to pay for equipment and facilities and also they can pay for better coaches .	Commercialism can raise the profiles of teams and athletes. For example, Roger Federer has become a number one tennis player.
There is more money invested into the sport which improves the quality of training .	The quality and experience of the sport which leads to popularity and opportunities for athletes.
Money from sponsors can be used to provide better facilities for spectators, e.g. the state-of-the-art Emirates Stadium used by Arsenal FC.	Spectators can view more of the sport because of the improvements in the sport, which attract more spectators.
Companies can increase their profits by being associated with a popular sporting event, e.g. McDonald's being partners with the Olympics.	Additional income can be generated from the publicity of the sport.

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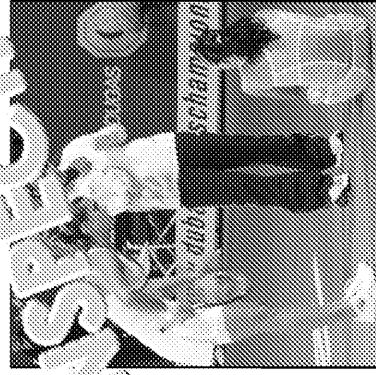
Ethical Issues

There are different terms used to describe the conduct of performers in sport. These terms and some examples of how they should act when competing. These terms and some examples of how they should act when competing.

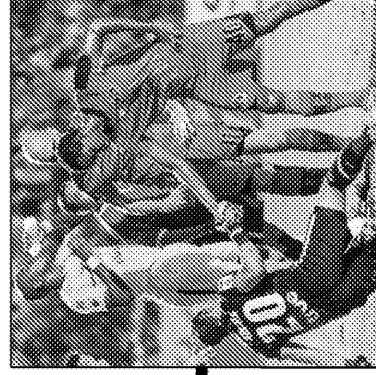


Sportsmanship

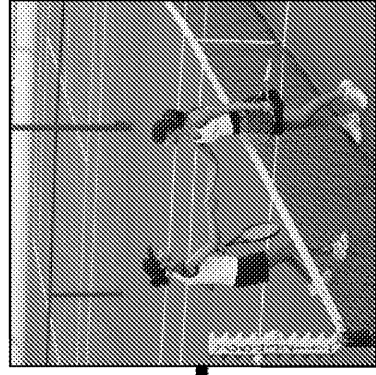
Playing in a fair manner and within the rules of a sport with etiquette and treating your opponents with respect



Stopping play if an opponent is injured to make sure they are ok



Helping an opponent if they are injured



Shaking the opponent's hand at the end of a match

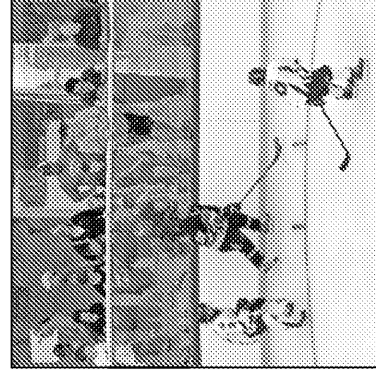
Other examples of sportsmanship:

- ✓ Refraining from unsportsmanlike talk or gestures towards opponents (e.g. trash talking)
- ✓ Helping an opponent with their skills by offering advice
- ✓ Apologising if you caused them an injury, offering encouragement to opponents
- ✓ Giving credit to opponents' success, as opposed to blaming them for your team's/performance's failure

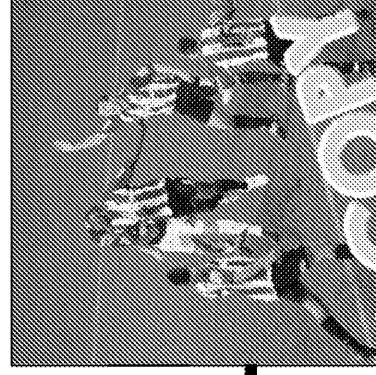


Gamesmanship

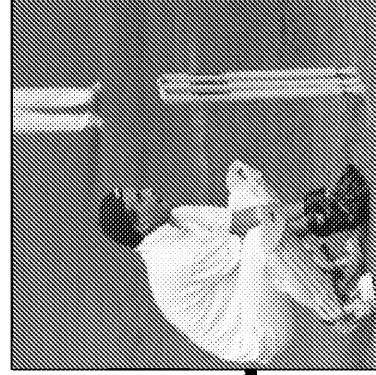
Pushing the code of conduct to its limits by bending the rules in order to gain an advantage



Wasting time when winning to slow down the opposition



Pulling an opponent's shirt to prevent them scoring / winning a contest



Putting the opposition off, e.g. sledging in cricket

Other examples Gamesmanship:

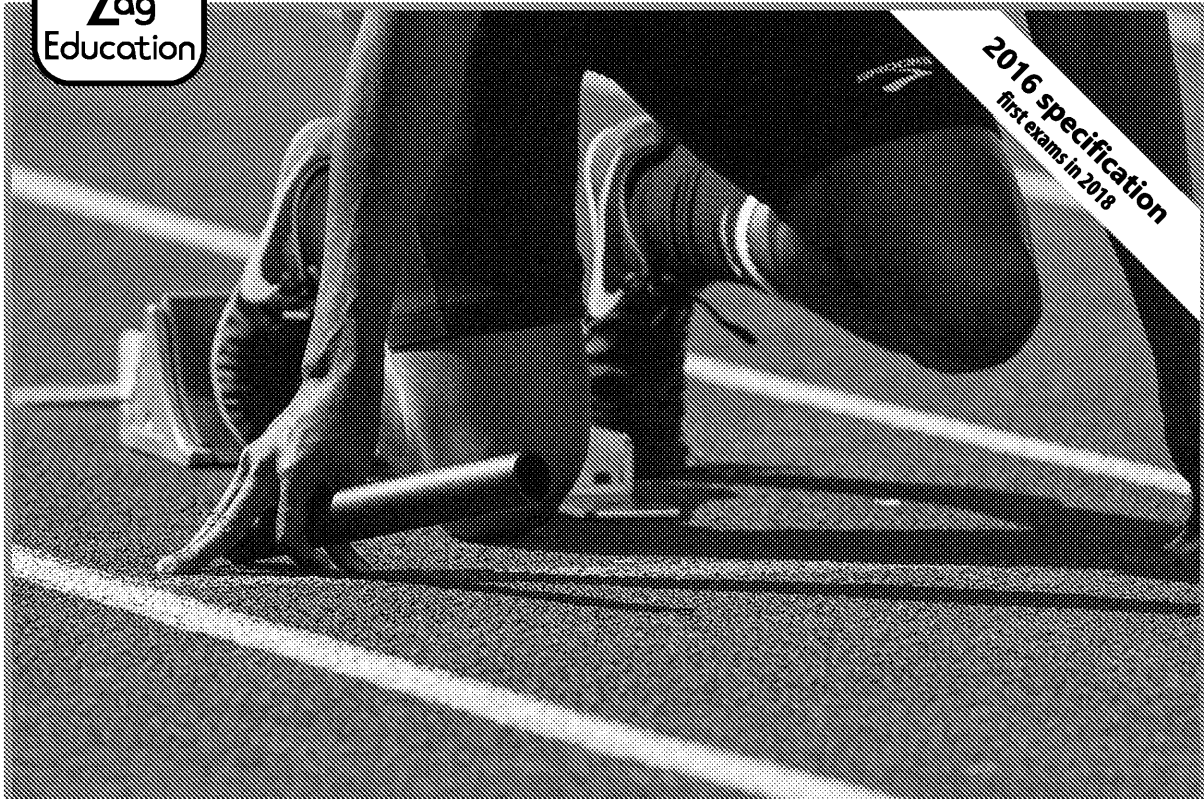
- ✗ Encouraging officials to make calls in your favour through persuasion, intimidation or bribery
- ✗ Distracting opponents to put them off their performance
- ✗ Intentionally fouling an opponent to disrupt their performance or cause injury
- ✗ Using unsportsmanlike behaviour to gain an advantage, e.g. trash talking or giving gestures



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Topic on a Page

for GCSE WJEC PE

D Embleton

Folder B: Activity Mind Maps

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Health, Fitness and Well-being

Positive social interactions can improve mental health by making someone feel better.

Social Health and Well-being



Mental Health and Well-being





Use the images to help you identify the effects of leading a physically active lifestyle on social, mental and physical health and well-being.



- a) Define the terms 'health' and 'fitness' and b) describe the relationship between them.

Relationship between Health and Fitness

a) Health:

Well-being
Well-being refers to the overall state of being healthy, happy, and content.

b) Relationship between health and fitness:

To maintain health and fitness is important to:

a) Fitness:

Adhering to a healthy, active lifestyle requires motivation. See page 10 for the types of motivation

Avoiding smoking and drug use

Limiting alcohol use

Lead a healthy, active lifestyle – the UK government recommends that adults take part in at least 150 mins of moderate-intensity activity per week, or 75 mins of vigorous-intensity activity.

Eat a balanced diet is one that contains nutrients in sufficient quantities to maintain health and prevent consuming the excess calories to achieve weight loss.

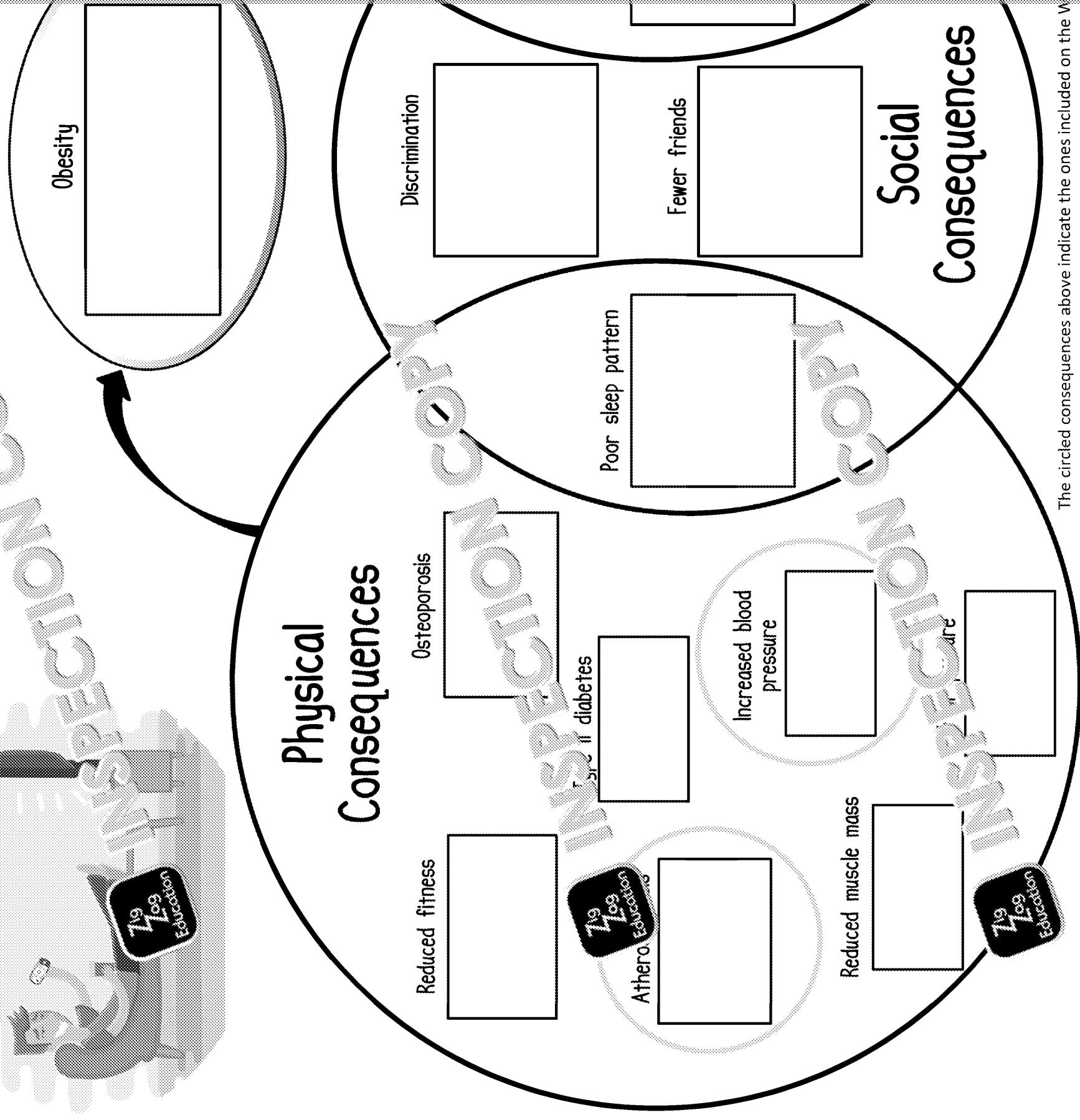
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Consequences of a Sedentary Lifestyle

A sedentary lifestyle involves little or no regular physical activity. If a person has a sedentary lifestyle, they may experience negative consequences to their physical, social and mental health.



The circled consequences above indicate the ones included on the worksheet. But there are more consequences to be aware of.

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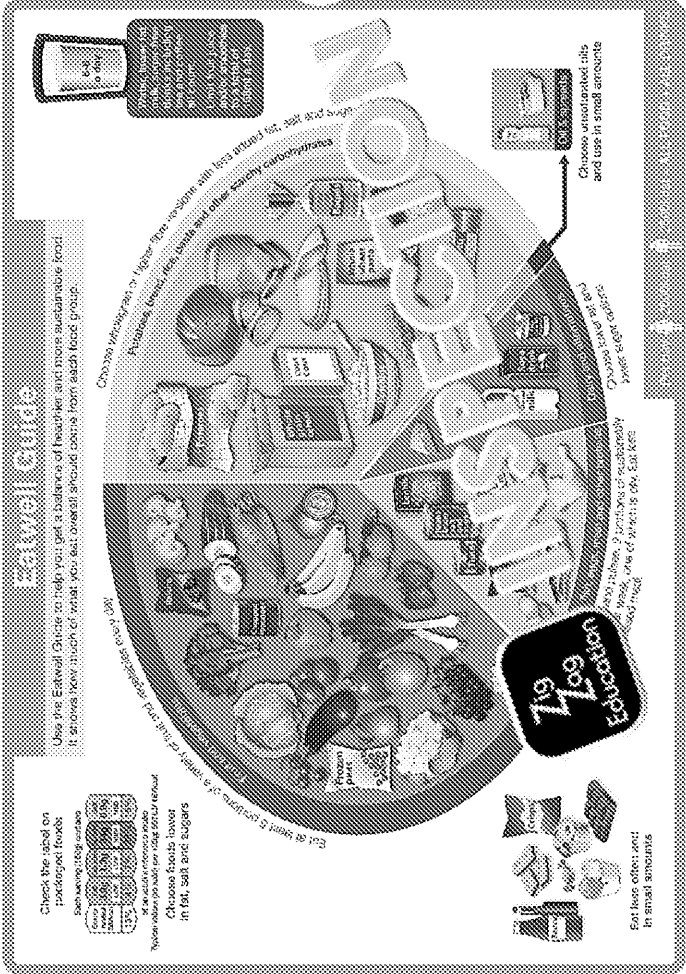
Diet and Nutrition

Balanced Diet

There is no single food which fulfils the needs of the body; therefore, it is important that a balanced diet is consumed. A balanced diet is needed to:

- ensure enough nutrients, vitamins and minerals are consumed
- limit the storage of unused energy as fat
- reduce the risk of obesity
- ensure energy is available for growth and activity
- ensure nutrients are available for energy, growth and hydration
- maintain overall health

The Eatwell Guide is a useful tool for following a healthy balanced diet...



Each of the nutrients in the table:

- a) Identify an appropriate % contribution to the diet.
- b) Explain its importance in sport.
- c) Identify example food sources.

Macronutrients needed by the body in large amounts	
Carbohydrate	b)
a) ___ %	c)
Fat	b)
a) ___ %	c)
Protein	b)
a) ___ %	c)

Macronutrients needed by the body in small amounts

Minerals and vitamins ensure body systems are functioning effectively. Examples include vitamins C and D which improve immune function and so reduce the risk of becoming ill. Minerals such as calcium are essential for healthy bone growth.

Water and dehydration

Dehydration occurs when there is an imbalance between the amount of water taken in through food and drink and the amount of water lost.

In order to avoid dehydration it is important that enough water is drunk.

Drinking water is particularly important when exercising as more water will be lost as sweat.

In some sports, such as long-distance running and cycling, the athletes can consume more water than they need. However, in team sports such as hockey, the athletes usually need to wait for a break in play, e.g. during an injury or at half-time.

Outline the impacts of dehydration on a performer.

Rugby forward

Long-distance runner

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Components of Fitness

- a) Define each component of fitness and
- b) explain their importance in sport.

The different components of health and fitness that can be improved through training are listed below. Different sports require different components of fitness. Components can be classed as health-related and skill-related.

Flexibility

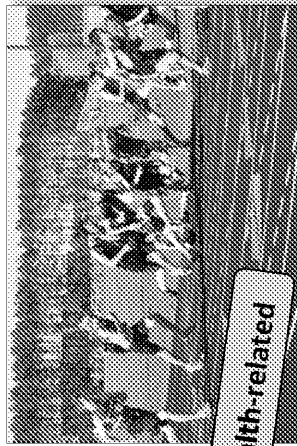
Cardiovascular Endurance

a) Definition:



b) Explanation of importance:

Health-related



a) Definition:

Muscular Endurance

a) Definition:



Health-related

b) Explanation of importance:

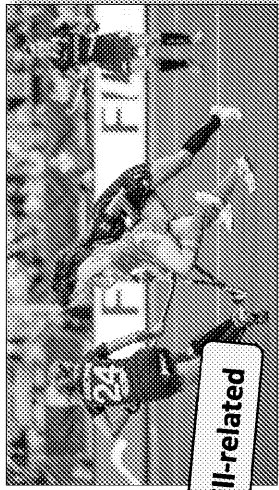
b) Explanation of importance:

Health-related



Components of Fitness

a) Definition:



Skill-related

b) Explanation of importance:



Balance

a) Definition:

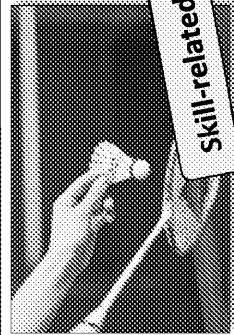


Skill-related

b) Explanation of importance:

Coordination

a) Definition:



Skill-related

b) Explanation of importance:

b) Explanation

Power

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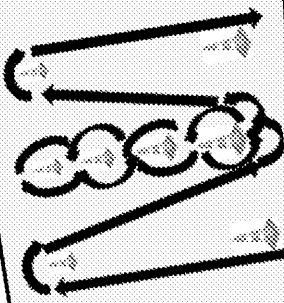


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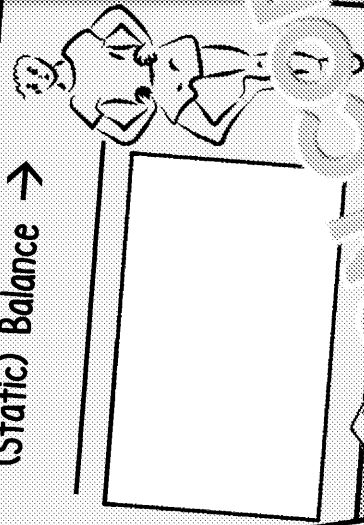
Measuring health and fitness

There is a range of different fitness tests which can be used to measure the different components of fitness. These tests can be used to measure the advantages and limitations of fitness tests. The tests are provided to the side.

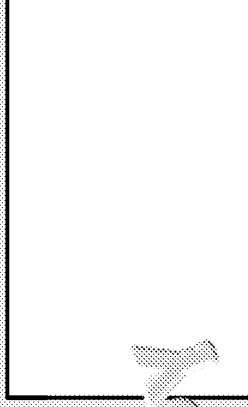
Agility →



(Static) Balance →



Power →



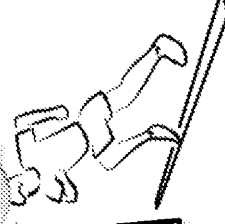
Reaction Time →



Flexibility (hyperextension) →



Speed →



Identify the test used to measure each component of fitness (use the images to support), then briefly outline each test.

Importance of Measuring Fitness

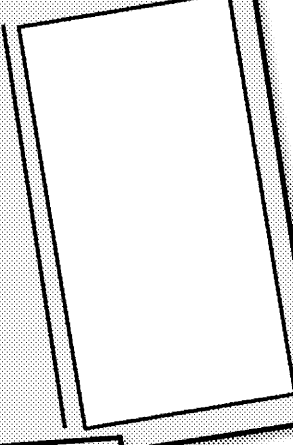
Importance of protocols

- Ensures that test instructions are standardised (repeat the exact same way with different groups)
- Improves the validity and reliability of fitness test results

Body Composition →

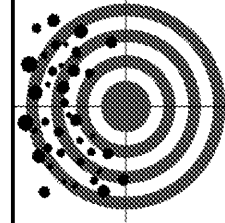


Coordination →

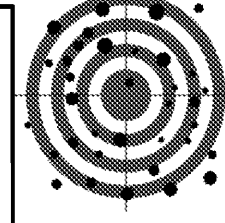


Define the terms 'validity' and 'reliability'.

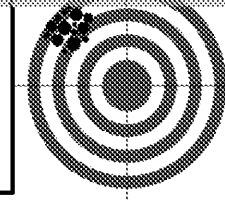
Reliability:



Low validity, low reliability



High validity, low reliability



Low validity, high reliability

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6 Topic 1: Health, training and exercise

Principles of Training and

Principles of training should be applied to all methods of training in order to optimise the effectiveness of the training.

Identify and describe the principles of training.

Provide a sport-specific FITT principles during a weight training session.

S

e.g. a cyclist should perform most of their training on a bike

P

e.g. once bench pressing 50 kg becomes easier, the load should be increased to 52.5 kg

O

e.g. a weightlifter who is comfortable lifting 40 kg should use a heavier weight during training

V

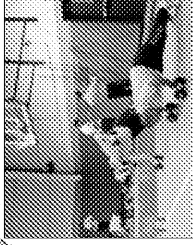
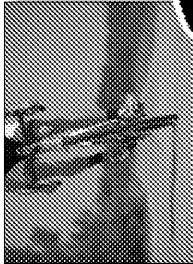
e.g. weight training should use a variety of exercises to target different muscle groups

Progression: overload can be achieved by applying the FITT principle: overload

Complete the table below to outline the key points of each type of training.

Methods of Training

The method of training that is performed by athletes depends on the sport for which they are training. The different types of training and their uses are outlined below.



These methods help to develop correct technique for safe and effective training.

Continuous Training	Interval Training	Circuit Training	Weight Training
What?	What?	What?	What?
Advantages	Advantages	Advantages	Advantages
Disadvantages	Disadvantages	Disadvantages	Disadvantages
Useful for	Useful for	Useful for	Useful for
Considerations	Considerations	Considerations	Considerations

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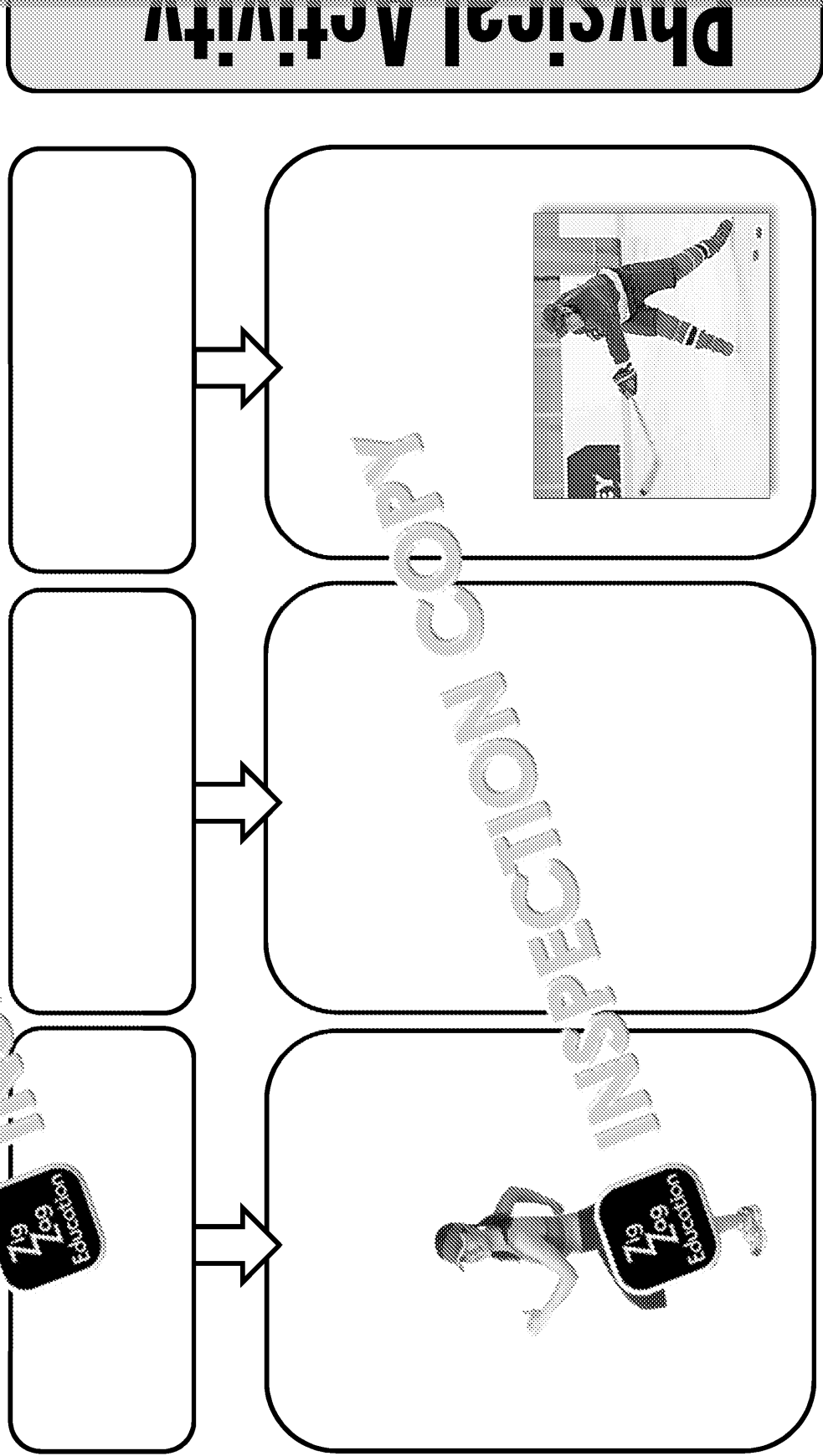


Warm-up and Cool-down

Warm-up phases

It is important that a warm-up is performed prior to exercise in order to prepare the body for physical activity. A warm-up is designed to reduce the risk of injury and improve performance. The three main phases of a warm-up, examples of each component and the reasons for warming up are outlined below:

Identify and describe each stage of a warm-up and cool-down





Physiological reasons

Reasons for Warming up

Psychological reasons



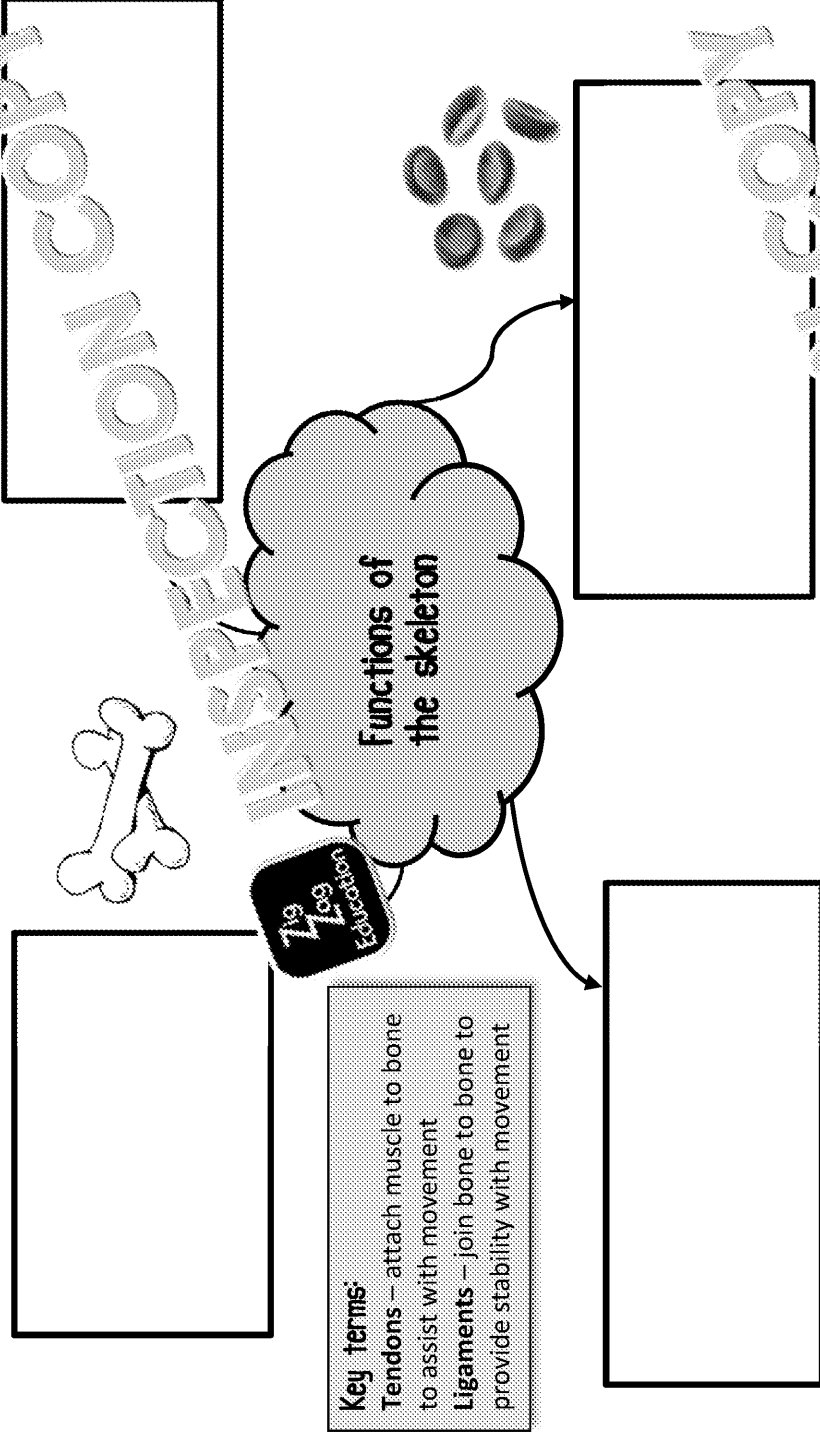
Identify the physiological, psychological reasons for performing warm-up and cool-down

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The Skeletal System

Using examples, describe the four functions of the skeletal system.



Types of synovial joints and their movements
 Different joints allow for different movements. There are two main types outlined below. Notice that each joint allows a different degree of movement.

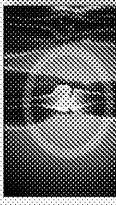
Hinge joint

These can only move in one plane of movement but are relatively stable.

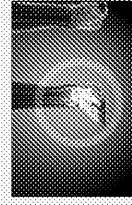
Elbow:



Knee:



Ankle:



Pivot joint

These joints allow rotation around a single axis.



Extension –

Flexion –

Rotation –

Rotation –

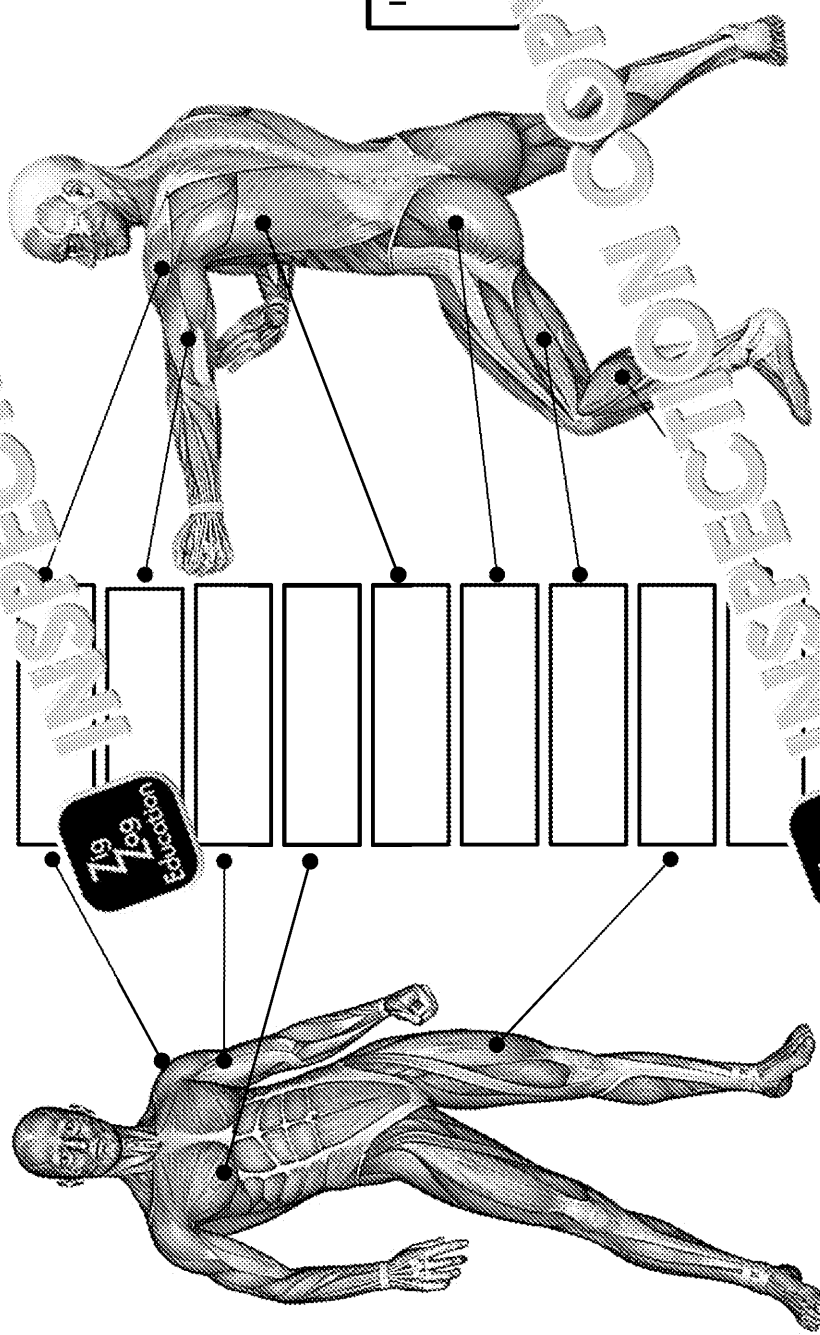


The Muscular System

Identify the major muscles of the body.

Major Muscles of the Human Body

The main role of skeletal muscle is to allow movement by working with the skeleton. Muscles attach to bones via **tendons** and contract to pull on the bones to create movement.



Type I: Slow twitch

Head in colour

Dense supply of mitochondria

Aerobic respiration

Dense supply of myoglobin

Don't fatigue easily

Importance in sport:

Identify the movement and main movement for each of the joints in

Joint	Shoulder
Elbow	
Hip	
Knee	

Identify **two** characteristics of each muscle type and describe their roles in sport.

Muscle types

You may think there is only one type of muscle. However, muscles come in three main types and have different characteristics:

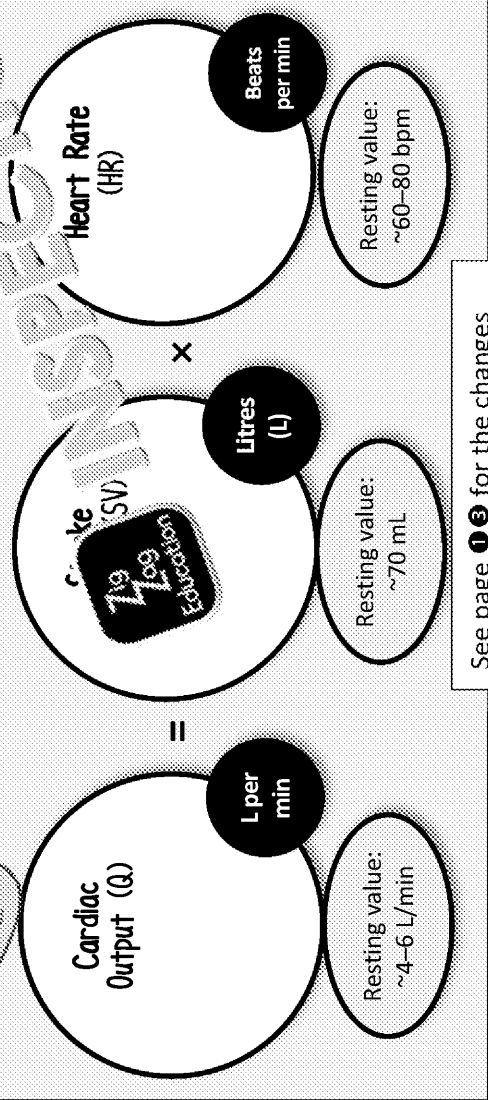
Cardiac muscle:	Skeletal muscle:	Smooth muscle:
Characteristics:	Characteristics:	Characteristics:
Role in sport:	Role in sport:	Role in sport:

The Cardiovascular

Define the terms heart rate, stroke volume and cardiac output.

Cardiac values

The heart needs to supply the muscles with oxygen and nutrients required for movement. During exercise, where the demand for this is greater, heart rate and stroke volume are both increased.

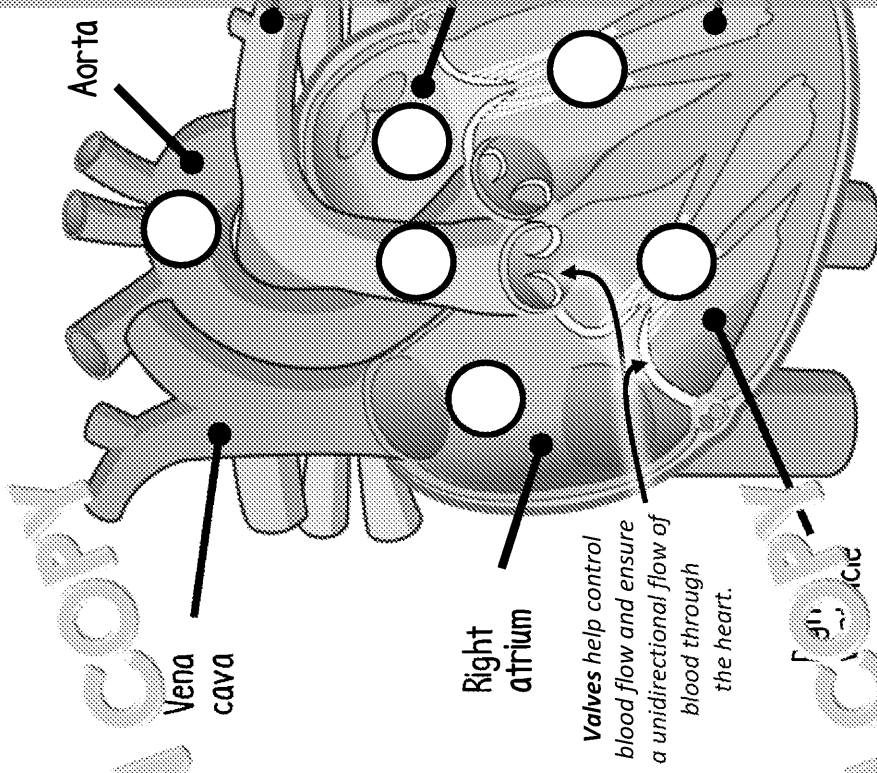
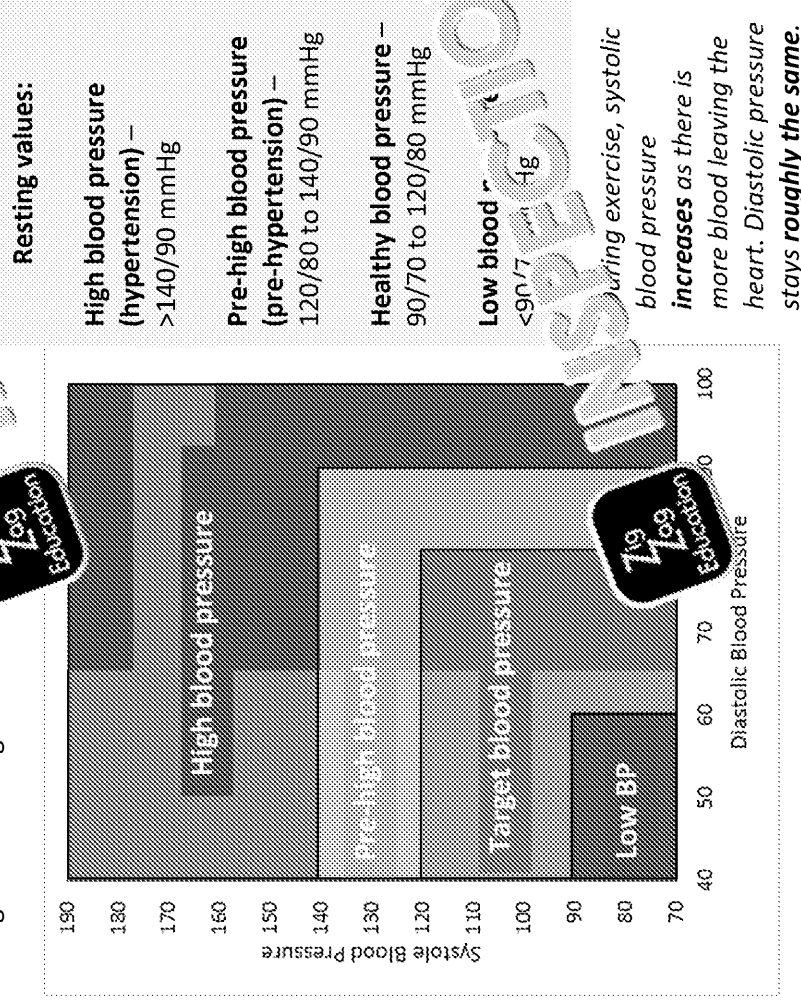


Blood Pressure

The pressure exerted on the artery walls is used as a measure of health. Blood pressure readings are given as **systolic** over **diastolic** pressures (in mmHg).

Systolic pressure – the pressure on the artery walls when the heart is contracting and blood is leaving the heart.

Diastolic pressure – the pressure on the artery walls when the heart is relaxing and are filling with blood.



Describe the pathway of blood in the cardiac cycle and label the diagram above.

The flow of blood between different structures is controlled by valves. Blood under high pressure to flow through them, but prevent the opposite direction.

Blood is pumped around the heart and to the lungs in the order shown in the diagram:

- 1
- 2
- 3
- 4
- 5
- 6
- 7

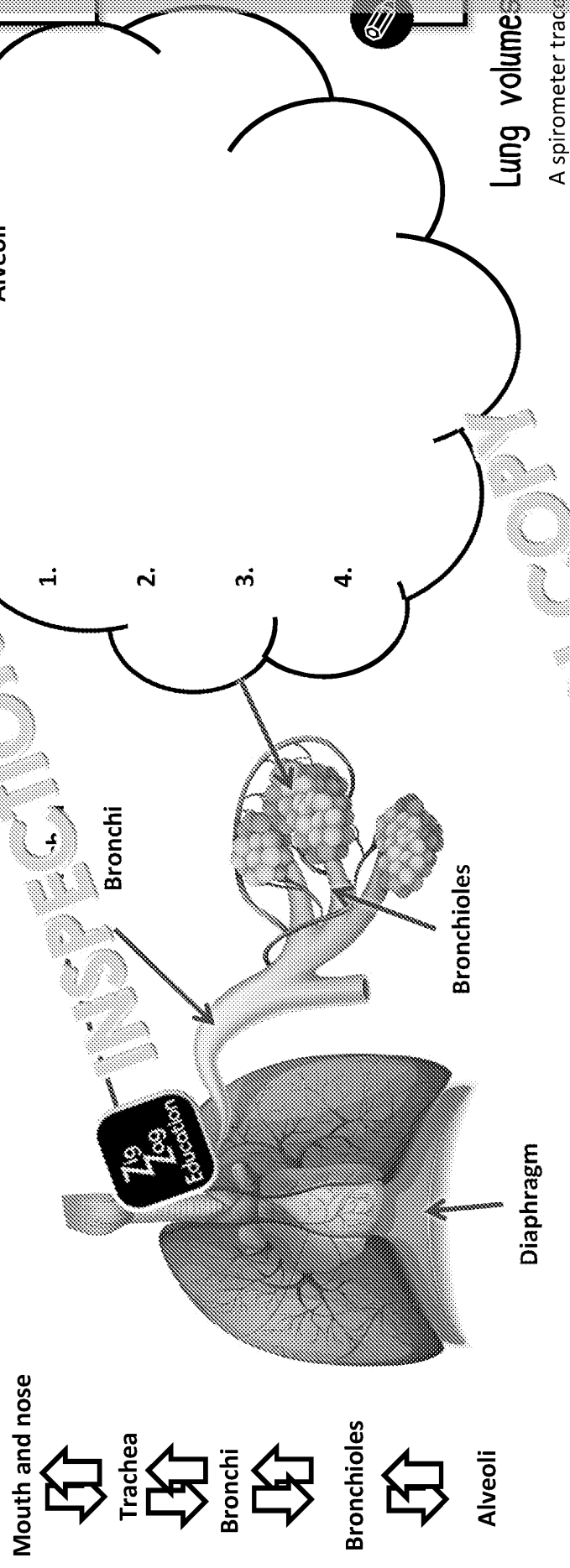
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The Respiratory System

Structure of the respiratory system and pathway of air



The Mechanics of Breathing

In order for us to get oxygen into our bodies, we have to breathe. Outlined below is the mechanics of how we breathe:

Complete the table below by identifying what happens during expiration and inspiration.

Changes to our mechanics of breathing lead to changes in our Tidal Volume.

		b) Changes
TV	Tidal Volume:	
VC	Vital Capacity:	
RV	Residual Volume:	
VE	Minute ventilation (VE):	

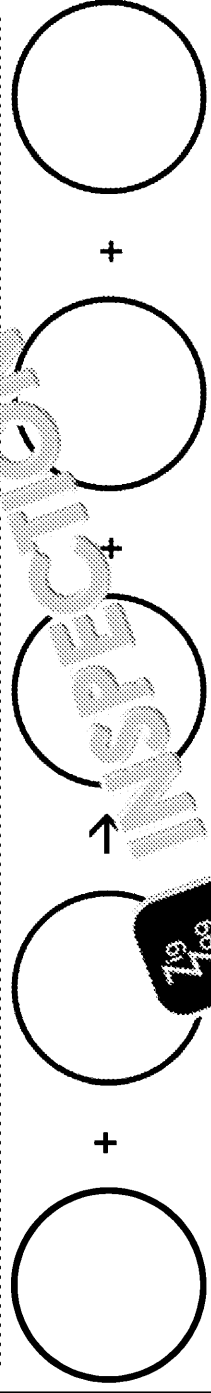
intercostal
muscles

		Expiration	Inspiration	Changes during exercise
Intercostal muscles	External			More forceful contraction of intercostal muscles
	Internal			
	Ribs			More forceful contraction of the diaphragm
	Diaphragm			
	Lung volume			Greater pressure difference between the lungs and environment
	Air pressure in lungs			
	Air pressure is relatively high in...			

WJEC PE Topic on a Page
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Aerobic Exercise

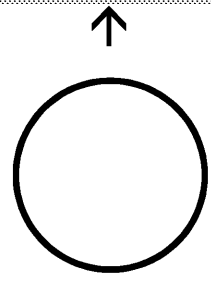
Description:



Sports:

More sports:

Description:



Sports:

Aerobic and Anaerobic Exercise

Oxygen debt

Breathing rate remains elevated after exercise to allow waste products to be removed and oxygen stores to be restored.

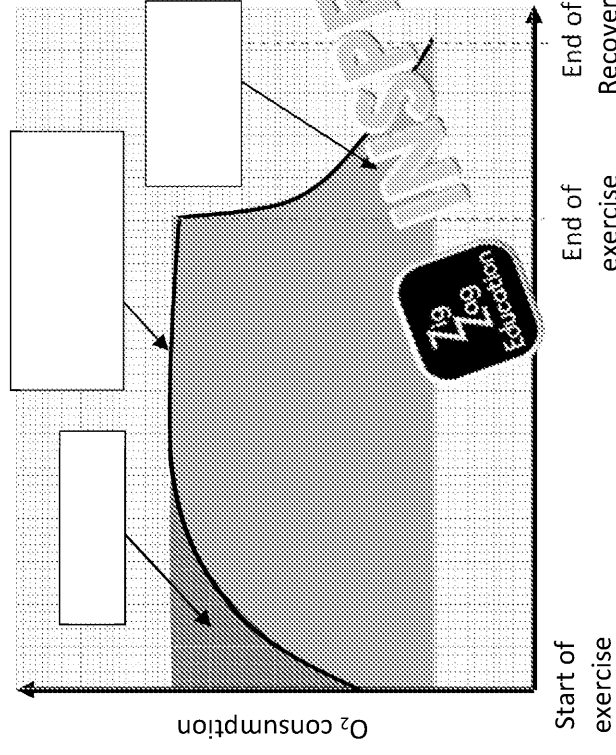
- Also known as excess post-exercise oxygen consumption (EPOC)
- EPOC is greater following anaerobic exercise as the body relies on energy production without oxygen

Label the different components of EPOC or 'the after burn'.

The more **hydrated** the body is, the less strain that will be placed on the heart. This increases the contribution of **aerobic fuel sources** to energy and can help delay fatigue. However, it is important to avoid over-hydrating as it may over-dilute important electrolytes such as sodium and potassium.

See page 3 for the dangers of under-hydrating.

The graph below outlines this phenomenon:



Nutrients for fuel/recovery

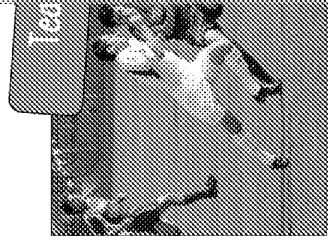
Aerobic exercise:

- Carbohydrates in the form of stored muscle glycogen are used as the primary fuel source
- Fats are used as a secondary fuel source during very low-intensity exercise
- glycogen stores are depleted during ultra-marathon events
- Protein is only used during ultra-marathon events

Anaerobic exercise:

- Carbohydrates are also used during anaerobic exercise. Glucose in the blood is used from glycogen that has been broken down.

Carbohydrates are the main nutrient used to replenish muscle glycogen stores post-exercise.

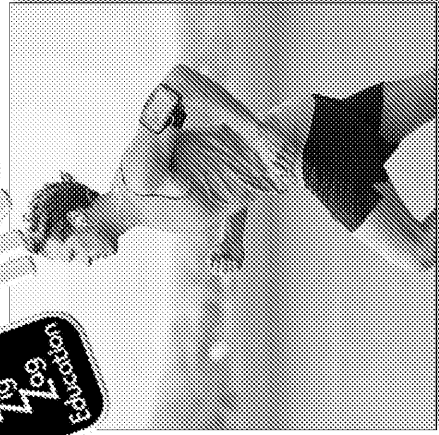
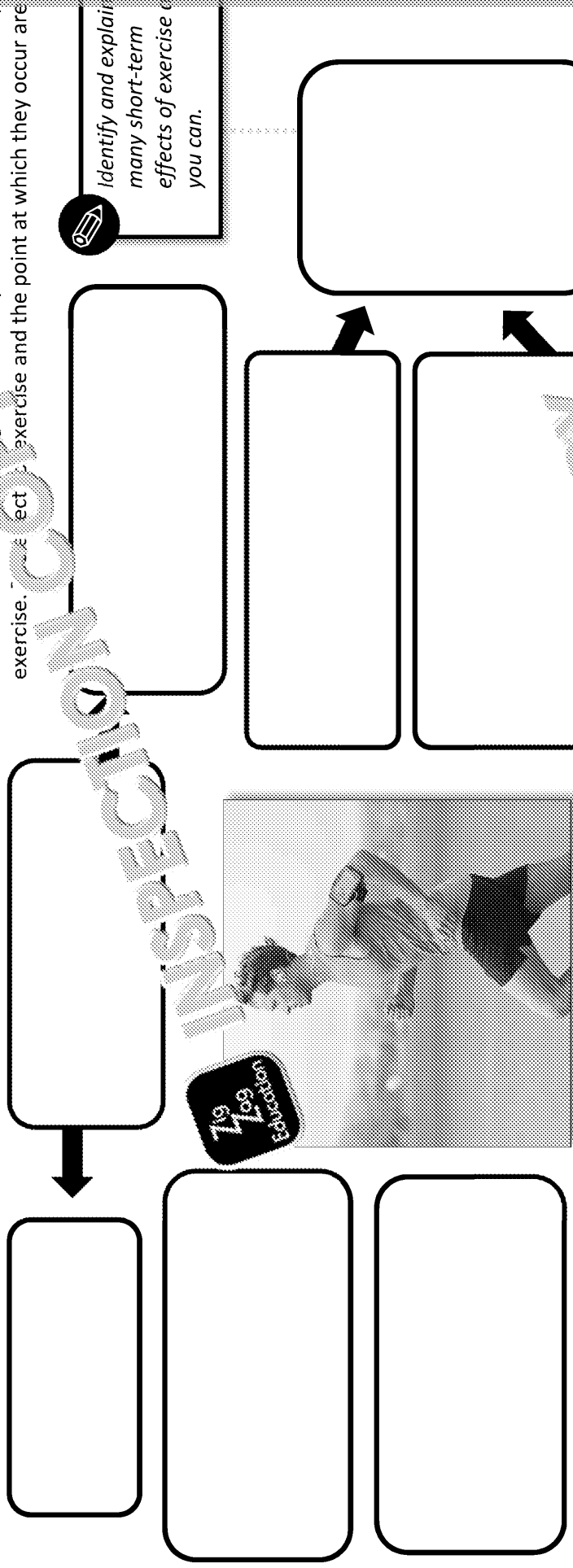


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Education

Short- and Long-term Effects

Exercise leads to a number of changes to the body. Some of these effects take place immediately, while others take place over a longer period of time. Identify and explain many short-term effects of exercise that you can.

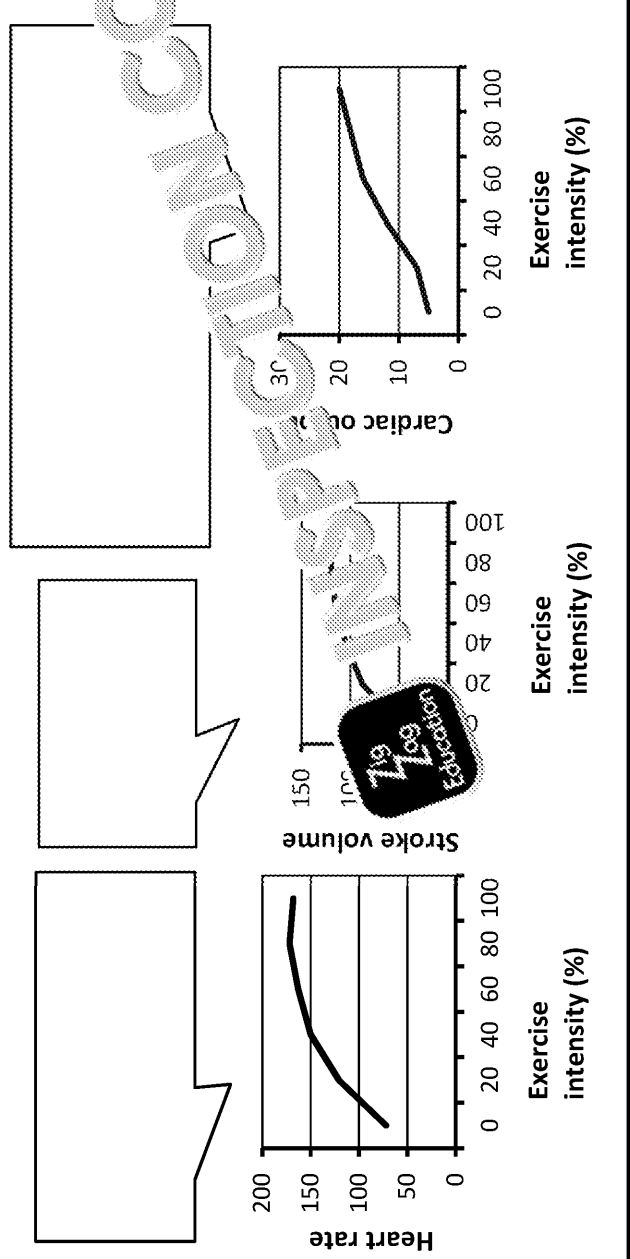


Short-term Effects of Exercise

Heart rate, stroke volume and cardiac output during exercise

During exercise, the heart rate and stroke volume increase in proportion to the increase in the intensity of exercise until a plateau is reached. This results in a greater cardiac output which provides the body with greater levels of oxygen during exercise.

The changes to cardiac function during exercise are displayed in the graphs below:



Remember...

$$\text{Cardiac Output } Q = \text{Stroke Volume } SV \times \text{Heart Rate } HR$$

Lever Systems

Movement at the joints occurs by one of the three classes of levers.

1st Class

Mechanical Advantage or Disadvantage:
Effort arm is longer than load arm



Basketball shooting

Movement at the elbow:
Preparation:
Execution:
Lever system:
Fulcrum (elbow)
Load
Effort (Triceps)

Javelin throw

Movement at the Elbow:
Pull-back:
Throwing phase:
Lever system:
Effort (triceps/biceps)

2nd Class

Mechanical Advantage
Effort arm is longer than load arm

Push-up

Movement at the elbow:
Downwards:
Upwards:
Lever system:
Effort (triceps)
Fulcrum (foot)
Load

Jumping

Movement at the ankle:
Take-off:
Landing:
Lever system at the ankle:
Effort (gastrocnemius)

3rd Class

Mechanical Disadvantage
Load arm is longer than effort arm

Cycling

Movements at the knee:
Downwards:
Upwards:
Lever system at the knee:
Effort (hamstring and quadriceps)
Fulcrum (knee)
Load

Biceps curl

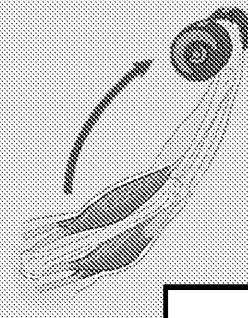
Movement at the Elbow:
Downwards:
Upwards:
Lever system:
Effort (biceps)
Fulcrum (elbow)
Load

Revision Success Tip!

Remember...
1 2 3
F L E
The letter is the middle part of the lever system

Muscles contract in two ways:

Isotonic contractions:



Describe the different muscle contractions.

Isometric contractions:

a) Describe the difference between the agonist and antagonist muscles.
b) Describe the difference between these muscle actions: contraction and relaxation.

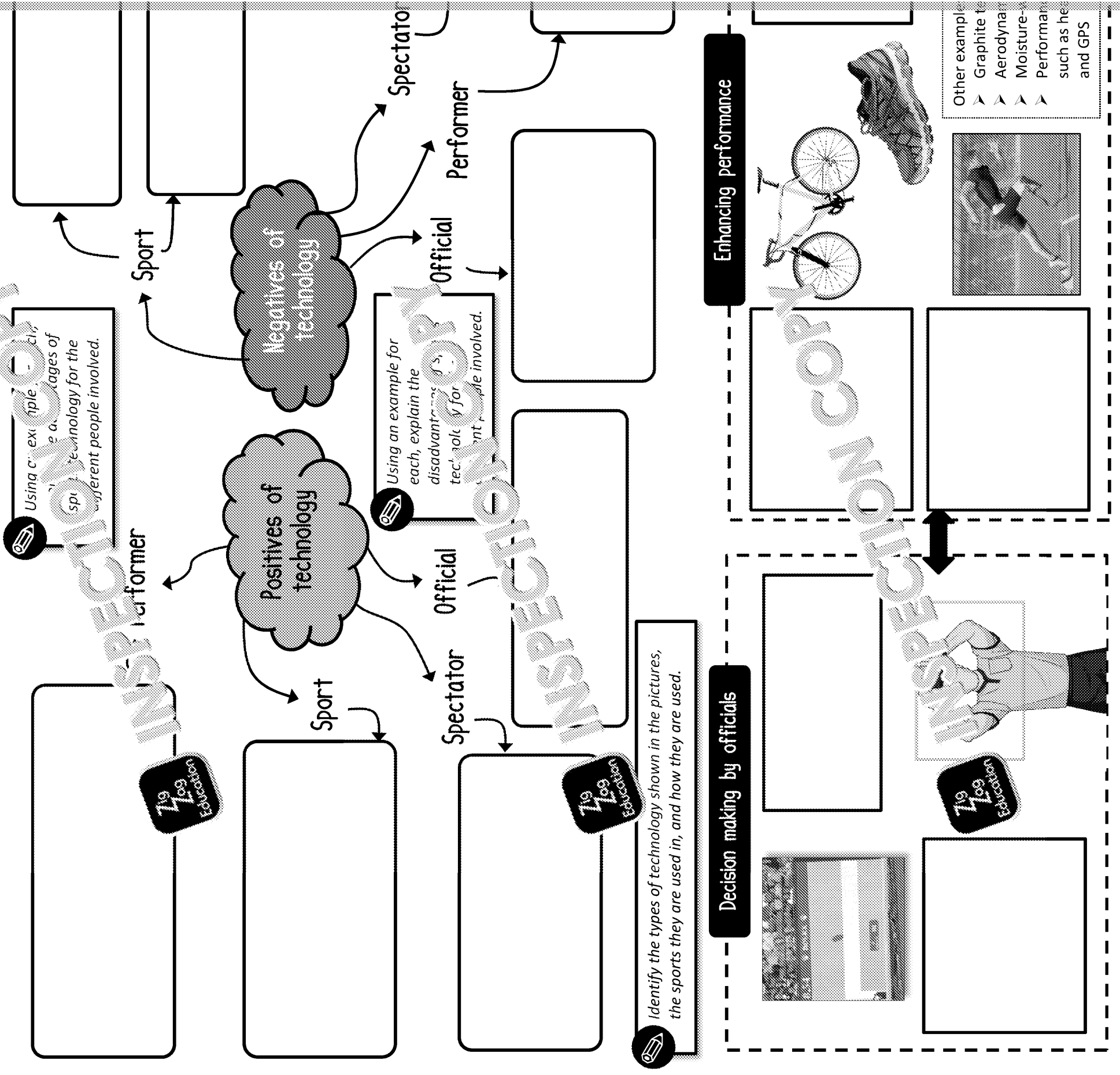
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Sports Technology

Technology has many uses in sport and can be used to benefit performers, coaches, officials and spectators. However, it can also have negative impacts on the sport.



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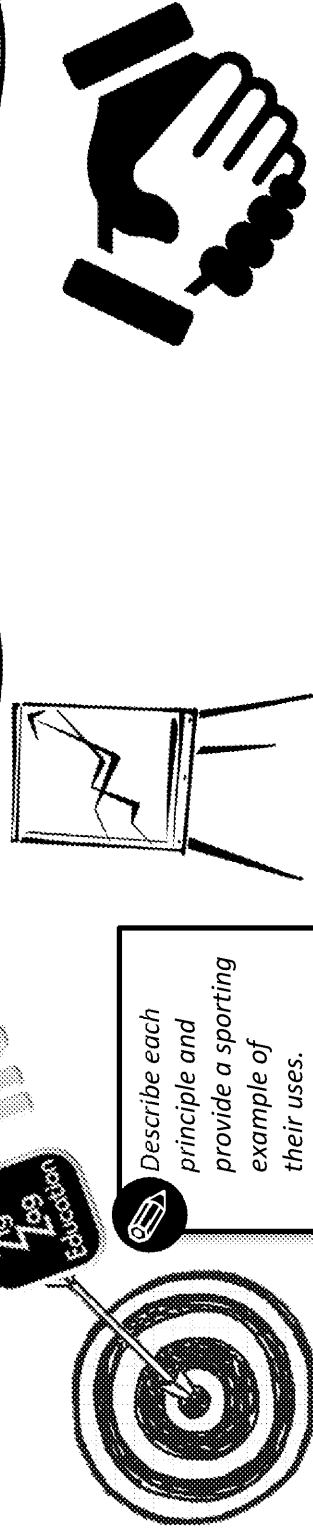


Goal-setting

Identify the SMART principles of goal-setting.

When setting goals for yourself or for your athlete/team, it is important to remember that

S.....
A.....



Describe each principle and provide a sporting example of their uses.

Example:	Example:	Example:

Impact of goal-setting on health, well-being and performance
Goal-setting can be used to achieve goals related to health, well-being and performance.

-
-
-
-

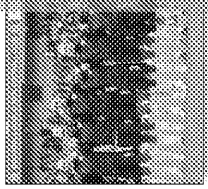
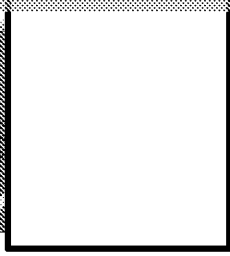
Identify **four** benefits of goal-setting that impact health, well-being and performance.



Revision Success Tip!

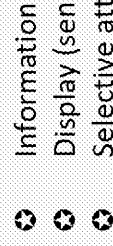
It is important to identify the relationship between different concepts and how they all contribute to improve performance. For example:

- Goal-setting can increase motivation
- Different feedback and guidance methods are best suited to different skills and abilities
- Feedback given can impact how information is processed by an athlete.



QUESTION

- 



The **short-term memory** attends to information received by the senses, whereas the **long-term memory** selects appropriate response by using past experiences as a reference.

feel. It is used to reinforce the long-term memory.



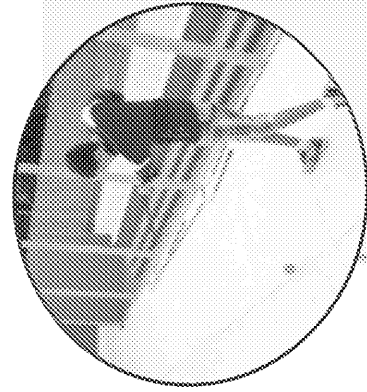
- Feedback can provide:
- Knowledge of results —**

3 Negative feedback helps identify areas for improvement



1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Conclusion**
 6. **References**
 7. **Appendix**
 8. **Index**
 9. **Table of Contents**
 10. **Figure 1**
 11. **Figure 2**
 12. **Figure 3**
 13. **Figure 4**
 14. **Figure 5**
 15. **Figure 6**
 16. **Figure 7**
 17. **Figure 8**
 18. **Figure 9**
 19. **Figure 10**
 20. **Figure 11**
 21. **Figure 12**
 22. **Figure 13**
 23. **Figure 14**
 24. **Figure 15**
 25. **Figure 16**
 26. **Figure 17**
 27. **Figure 18**
 28. **Figure 19**
 29. **Figure 20**
 30. **Figure 21**
 31. **Figure 22**
 32. **Figure 23**
 33. **Figure 24**
 34. **Figure 25**
 35. **Figure 26**
 36. **Figure 27**
 37. **Figure 28**
 38. **Figure 29**
 39. **Figure 30**
 40. **Figure 31**
 41. **Figure 32**
 42. **Figure 33**
 43. **Figure 34**
 44. **Figure 35**
 45. **Figure 36**
 46. **Figure 37**
 47. **Figure 38**
 48. **Figure 39**
 49. **Figure 40**
 50. **Figure 41**
 51. **Figure 42**
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 53. **Figure 44**
 54. **Figure 45**
 55. **Figure 46**
 56. **Figure 47**
 57. **Figure 48**
 58. **Figure 49**
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 60. **Figure 51**
 61. **Figure 52**
 62. **Figure 53**
 63. **Figure 54**
 64. **Figure 55**
 65. **Figure 56**
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 67. **Figure 58**
 68. **Figure 59**
 69. **Figure 60**
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 71. **Figure 62**
 72. **Figure 63**
 73. **Figure 64**
 74. **Figure 65**
 75. **Figure 66**
 76. **Figure 67**
 77. **Figure 68**
 78. **Figure 69**
 79. **Figure 70**
 80. **Figure 71**
 81. **Figure 72**
 82. **Figure 73**
 83. **Figure 74**
 84. **Figure 75**
 85. **Figure 76**
 86. **Figure 77**
 87. **Figure 78**
 88. **Figure 79**
 89. **Figure 80**
 90. **Figure 81**
 91. **Figure 82**
 92. **Figure 83**
 93. **Figure 84**
 94. **Figure 85**
 95. **Figure 86**
 96. **Figure 87**
 97. **Figure 88**
 98. **Figure 89**
 99. **Figure 90**
 100. **Figure 91**
 101. **Figure 92**
 102. **Figure 93**
 103. **Figure 94**
 104. **Figure 95**
 105. **Figure 96**
 106. **Figure 97**
 107. **Figure 98**
 108. **Figure 99**
 109. **Figure 100**
 110. **Figure 101**
 111. **Figure 102**
 112. **Figure 103**
 113. **Figure 104**
 114. **Figure 105**
 115. **Figure 106**
 116. **Figure 107**
 117. **Figure 108**
 118. **Figure 109**
 119. **Figure 110**
 120. **Figure 111**
 121. **Figure 112**
 122. **Figure 113**
 123. **Figure 114**
 124. **Figure 115**
 125. **Figure 116**
 126. **Figure 117**
 127. **Figure 118**
 128. **Figure 119**
 129. **Figure 120**
 130. **Figure 121**
 131. **Figure 122**
 132. **Figure 123**
 133. **Figure 124**
 134. **Figure 125**
 135. **Figure 126**
 136. **Figure 127**
 137. **Figure 128**
 138. **Figure 129**
 139. **Figure 130**
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 142. **Figure 133**
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 144. **Figure 135**
 145. **Figure 136**
 146. **Figure 137**
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 148. **Figure 139**
 149. **Figure 140**
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 151. **Figure 142**
 152. **Figure 143**
 153. **Figure 144**
 154. **Figure 145**
 155. **Figure 146**
 156. **Figure 147**
 157. **Figure 148**
 158. **Figure 149**
 159. **Figure 150**
 160. **Figure 151**
 161. **Figure 152**
 162. **Figure 153**
 163. **Figure 154**
 164. **Figure 155**
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 212. **Figure 203**
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 215. **Figure 206**
 216. **Figure 207**
 217. **Figure 208**

Guidance and Stages of Learning



Identify **three** characteristics of each stage of learning.

Cognitive (1st stage)

1.

2.

3.

Associative (2nd stage)

1.

2.

3.

The process makes basic motor skills and develops them into advanced skills over 25 years to develop. This process is split into three clear stages.

Guidance

Guidance is used to help athletes learn new skills and develop old ones.

Explain the types of guidance and feedback suited to cognitive performers.

Explain the types of guidance and feedback suited to each type of guidance.

Manual Guidance

Visual Guidance

Mechanical Guidance

Verbal Guidance

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Motivation and Mental preparation

Mental preparation

It is important for performers to prepare mentally as well as physically for the activity. Visualisation techniques are amongst the most common methods of preparing mentally for an event.

Explain how to carry out each technique.

Identify the mental preparation techniques being described.

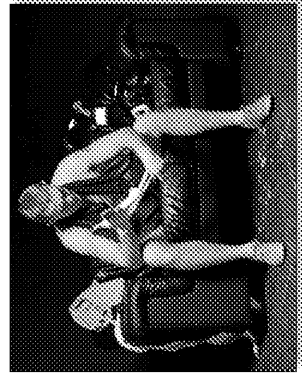
Method

How to do it

Creating mental images of specific movements, scenarios, or desired outcomes. Used before or during an event to visualise successful execution of skills.



Broader term that uses all senses to create mental representation linked to sporting performance.



The athlete has a mental run-through of how they will perform a skill.

Identify four different images of mental preparation on performance.



Effective mental preparation has a range of benefits that can improve performance:

Motivation

Individuals are motivated when they receive motivation.

These can be either intrinsic or extrinsic motivation.

Intrinsic motivation
If a person is motivated by the activity itself, they receive their motivation from within.

-
-
-

Effect of intrinsic motivation



Effect of extrinsic motivation

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Education

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Skills and Types of Pract

Skill

VS

Ability

Compare skill and ability.

Skills Continua

You should just classified on e

Sport skills have a range of characteristics and these can change in different scenarios and situations. Comparing them against each other makes it challenging to categorise skills; therefore, they have to be placed on a continuum.



Describe the different practice structures and explain the types of skills they develop.

Practice Structures

There are different ways of practising the skills. Certain practice methods are structured in ways that make them more suited to developing some types of skills over others.

Fixed practice

VS

Varied practice

Whole practice

VS

Part practice

Closed skills

Environmental

Self-paced

Pacing Continua



Outline six characteristics of skilful movement and provide an example of each.

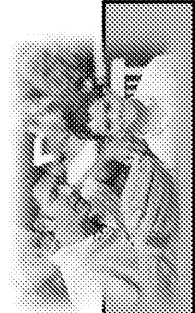
Characteristics of Skilled Performance

Movements will often meet the following criteria to be considered skilled.



Identify **two** sporting skills that could be placed at the beginning and end of the continua and justify their placement.

Age



Outline three personal experiences that could affect participation

Personal experiences

Describe by physical



Factors affecting participation

Identify different strategies for promotion, provision and access of sport and physical activity.



Strategies to improve participation

Promotion:

Provision:

Access:

Promotion strategies have aimed to increase involvement of social groups that may be disadvantaged when participating in sport, e.g.

- ✓ Adapted sports for people with disabilities
- ✓ Campaigns such as This Girl Can for female participation in sport

Reformative policies also aim to remove barriers faced by certain groups. Examples include anti-racism campaigns such as Kick It Out and the Respect Campaign in support of Black Lives Matter.

Schools can have a major influence on participation in sport:

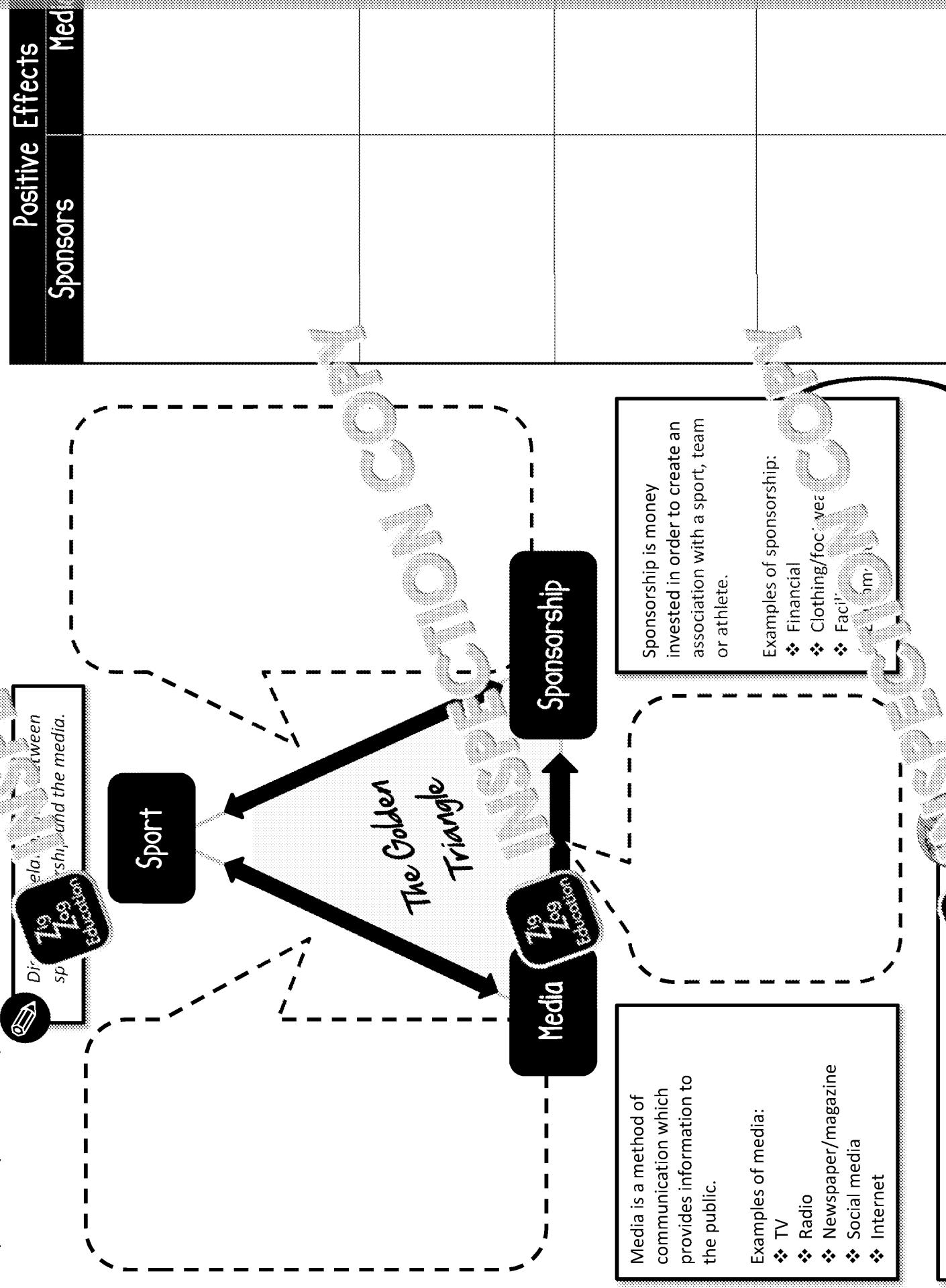
- ✓ **School PE programme** – A well-designed and inclusive PE programme with a variety of sports can expose students to different options.
- ✓ **Extracurricular activities** – Provide a more competitive environment for students to develop skills and build confidence. They can also help develop a sense of belonging which can lead to commitment in that sport throughout life.
- ✓ **Wider curriculum** – Integrating sport into other subjects, through project-based learning and themed lessons, can increase awareness and engage students in physical activity.

Commercialisation of Sport

Commercialisation

Commercialisation is the process by which a product is promoted to an audience. In sport, this occurs when companies form relationships with sports teams / athletes and use the media to promote something.

The golden triangle below shows the relationship between the three components (sport, sponsorship and media) of commercialisation.



Positive Effects	
Sponsors	Media

Sponsors use **advertising** to promote their brand.

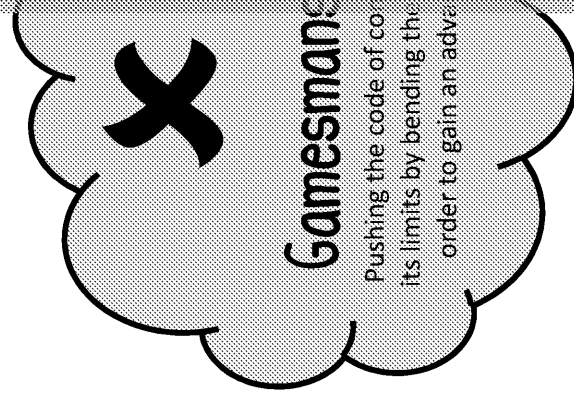
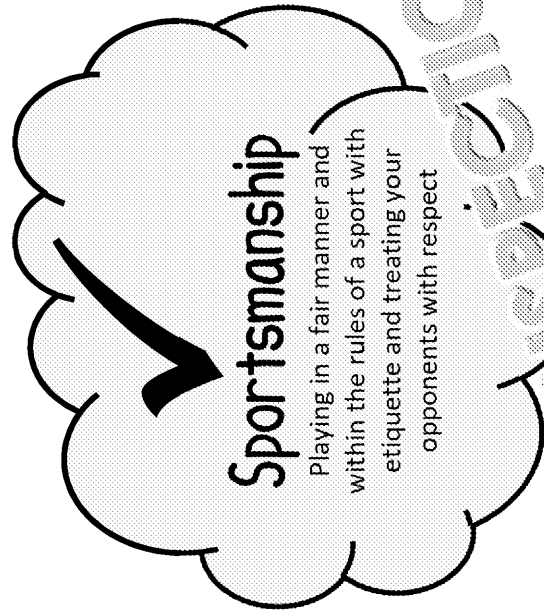
Examples include:

- ❖ Television adverts
- ❖ Sponsored posts on social media
- ❖ Use of kit, equipment and facilities

Ethical Issues

Create a spider diagram to identify as many examples of sportsmanship, gamesmanship and deviance as you can.

There are different terms used to describe the conduct of performers in sport and they should act when competing.



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