



Knowledge Organiser

**Sport**

BTEC Sport Edexcel

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**YEAR 10 & 11**

**2023-2025**

NAME: \_\_\_\_\_

TUTOR GROUP: \_\_\_\_\_

**YEAR 10**  
**COMPONENT 1: PREPARING PARTICIPANTS TO TAKE PART IN SPORT**  
**AND PHYSICAL ACTIVITY**

<b>Learning Aim A</b>	1	What is the definition of sport?	Competitive activities that involve physical exertion, have rules and regulations and a National Governing Body.
	2	Identify 5 benefits of taking part in sport.	Any 5 from: Improve fitness, meet new people, develop leadership skills, learn team work skills, resilience and self-confidence from competition.
	3	What is the definition of outdoor activities?	Activities carried out outdoors or in recreation areas that are adventurous.
	4	Identify 5 benefits of taking part in outdoor activities.	Any 5 from: Positive risk-taking activities, improved self-confidence and self-esteem, meet new people, learn new skills, time away from life stresses and electronic devices.
	5	Define public, private and voluntary sectors in sport.	Public sector - local authorities and school provision Private sector – provided by organisations who aim to make a profit Voluntary sectors – activities provided by volunteers who have a common interest in the sport /activity.
	6	What are the three main types of physical activity needs?	Physical health needs – improve fitness, body composition, sleep, immunity to help prevent illness, symptoms of long-term health conditions. Social health needs – meet new people, make friends, have fun, develop leadership and team working skills, decrease loneliness. Mental health needs – decrease stress levels, improve work life balance, decrease risk of depression, improve mood, increase self-confidence and self-esteem.
	7	What are the 4 age categories for participants?	Primary school aged children (aged 5–11 years) Adolescents (aged 12–17 years) Adults (aged 18–49 years) Older adults (aged 50 years and up)
	8	Identify three disabilities/long term health conditions that may affect participants needs.	Any 3 from: Participants with disabilities to include visual, hearing and physical disabilities. Participants with long-term health conditions to include asthma, type 2 diabetes, high blood pressure, coronary heart disease (CHD).
	9	Identify and explain 5 barriers to participation.	Cost of participation: clothing, equipment, transport. Access to sport or physical activity: location of sport or physical activity, limited accessible transportation, resources, types of sport or physical activity available. Time: lack of time due to other commitments - family, school, work. Personal barriers: body image, lack of self-confidence, parental or guardian influence, limited previous participation, low fitness levels, extended time off from previous participation, concerns that taking part in sport or physical activity may make existing health conditions worse. Cultural barriers: single sex sport or physical activity sessions, social norms of participating in unconventional clothing and availability of appropriate clothing to participate, lack of role models from own cultural background.
	10	Identify and explain methods to address 5 barriers of participation.	Cost: discounted pricing, hiring of equipment, free car parking. Access: public transport discounts, cycle hire to access the facility, free parking, taster days, staff training to support all types of participant and their needs, increased range of provision of sports and physical activities, ramps, assistive technology to include pool hoist, Braille information and signage, hearing loops. Time: creche facilities, extended opening hours. Personal barriers: private changing rooms, allowing participants to wear clothing they feel comfortable in, use of variety of images of people with different body shapes, parent, and child activity sessions to create familial culture of sport, campaigns to increase participation. Cultural barriers: women only physical activity sessions staffed by females, diversity of staff working at sport or physical activity facility, staff training in cultural awareness.
1	Identify sport-specific equipment from a range of different sports.	Participation equipment, e.g. balls, rackets; travel related equipment, e.g. kayak; scoring equipment, e.g. goalposts; fitness training equipment, e.g. dumbbells.	

2	Identify protection and safety equipment from a range of different sports.	Mouth protection, head protection, eye protection, body protection, floatation devices; first aid equipment – ice packs, bandages, defibrillator.
3	Identify equipment for people with disabilities that can be used within a range of different sports.	wheelchair, e.g. adapted wheelchair for wheelchair tennis/basketball.
4	Identify a range of sporting facilities where sport can be accessed.	Indoor facilities, e.g. sports halls, gyms; outdoor facilities, e.g. outdoor pitches, climbing wall, artificial snow domes.
5	Identify a range of officiating/performance analysis equipment that can be used within sport.	Officiating equipment – whistle, microphone, earpiece. Performance analysis - smart watches, heart rate monitors, applications.
6	Identify the benefits of performance of different types of technology on clothing and footwear.	Clothing to increase performance and experience – improved thermoregulation, clothing designed to improve aerodynamics. Footwear – sport-specific new designs or materials; improve grip; rebound.
7	Identify the benefits of performance of different types of technology on sport-specific equipment.	New materials for lightness and strength to include composite materials, e.g. a tennis racquet; new design of equipment to improve performance, e.g. golf driver design.
8	Identify the benefits of performance of different types of technology on protection and safety equipment.	Improved protection design; lighter weight; improved performance, e.g. shape of cycle helmets to improve aerodynamics.
9	Identify the benefits of performance of different types of technology on disabilities and assistive technology.	Prosthetics; sport-specific wheelchairs; equipment to support people with visual and hearing impairments.
10	Identify the benefits of performance of different types of technology on performance analysis/officiating.	Officiating – computer assisted systems; video assisted decision making. Performance analysis – action cameras, GPS, applications, sensors on sports clothing or equipment.

1	Name three components of a warm-up.	Pulse raiser, mobility, preparation stretching.
2	Describe 3 responses of the cardiorespiratory system to a pulse raiser.	Any 3 from: increased heart rate, increased breathing rate, increased depth of breathing, increased supply of oxygen to the working muscles, increased removal of carbon dioxide.
3	Describe 3 responses of the musculoskeletal system to a pulse raiser.	Increased temperature of the muscles, increased pliability of the muscles, reduced risk of muscle strain.
4	Describe 2 responses of the cardiorespiratory system to mobiliser activities.	Slight drop in heart rate as intensity of exercise lowers, slight drop in breathing rate as intensity of exercise lowers.
5	Describe 2 responses of the musculoskeletal system to mobiliser activities.	Increased production of synovial fluid in the joints to increase lubrication of joint and increase range of movement at the joint
6	Describe 3 responses of the cardiorespiratory system to preparation stretches.	Slight drop in heart rate and breathing rate for static stretches, maintained elevated heart and breathing rate for dynamic stretches.
7	Describe a response of the musculoskeletal system to preparation stretches.	Extending muscles so that they are fully stretched and less likely to tear during the sport or activity session.
8	Identify 5 ways that you can adapt warm-ups for different types of participants.	Any 5 from: Adapting warm-ups for different categories of participants: vary intensity of activities, low impact and high impact options, vary timing of warm-up – longer time frame for beginners, participants with low, fitness levels and those aged 50 plus, types of stretch used – simple stretches for beginners, compound stretch for moderate to advanced participants. Adapting the warm-up to make it specific to a physical activity: introduction of equipment in the warm-up that is specific to the physical activity using movements and activities from the physical activity in the warm-up stretching the main muscles required for the specific physical activity.
9	Identify 5 key components needed to take into consideration when organising a warm-up.	Any 5 from: Space – areas used, equipment, organisation of participants, timing, demonstrations, positioning.
10	Identify 4 ways you can support participants in a warm-up.	Observing participants, providing instructions, providing teaching points, providing feedback to participants.

## COMPONENT 2: TAKING PART AND IMPROVING OTHER PARTICIPANTS SPORTING PERFORMANCE

1	Learning Aim A	Define aerobic endurance.	The ability of the cardiorespiratory system to supply oxygen and nutrients to the muscles to sustain low to medium intensity work to delay fatigue.
2		Define muscular endurance.	The ability of the muscular system to continue to contract at a light to moderate intensity to allow repetitive movements throughout a long event or game.
3		Define muscular strength.	The maximum force that can be generated by a muscle or muscle group to improve forceful movements within an activity.
4		Define speed.	Distance divided by time to reduce time taken to move the body or a body part in an event or game.
5		Define flexibility and body composition.	Flexibility – the range of motion possible at a joint to allow improvements in technique. Body composition – the relative ratio of fat mass to fat-free mass in the body allowing variation in body composition dependent on the sport.
6		Define power.	The product of speed and strength to allow for explosive movements in sport.
7		Define agility.	The ability to change direction quickly to allow performers to outmanoeuvre an opponent.
8		Define reaction time.	The time taken between a stimulus and the start of a response, useful in fast-paced sports to make quick decisions about what to do.
9		Define balance.	The ability to maintain centre of mass over a base of support, useful to maintain positions in performance sports (static balance) or when on the move in any other sporting situation (dynamic balance).
10		Define co-ordination.	The ability to move two or more body parts at the same time smoothly and efficiently, to allow effective application of technique.
1	Learning Aim B	Give an example of a 'skill'.	Passing, scoring, travelling, intercepting or any other suitable response.
2		What is an 'isolated practice'?	Practices that focus on one skill at a time.
3		What is a 'competitive situation'?	The number of players, area of play and presence of an official to represent competition standard of play.
4		Name 5 roles of officials in sport.	Referee/umpire, assistant referee/line umpire, scorers/judges, timekeeper, video review officials.
5		Name 5 responsibilities of officials in sport.	Any from: Appearance, equipment, fitness requirements, effective communication, control of players, health and safety
6		List three characteristics of 'number of players' within a sport.	Number of players allowed to participate at any one-time substitutions, rolling or set number, variations in playing numbers due to different formats of the game
7		List three characteristics of 'scoring systems' in sport.	Any 3 from: methods of scoring, differing award of points for particular methods of scoring, how a winner is determined, what happens in the event of a tie.
8		List three characteristics of 'length of time' in sport.	Any 3 from: Number of periods of play, length of each period, length of play determined by time or score, additional time or extra periods of play in particular situations.

9	How may participants not adhere to rules within sport?	playing rules specific to each sport, e.g. hitting the ball twice in tennis, passing the ball forward in rugby, out of play area/offside, intentionally harming another player, incorrect travel, e.g. double dribble in basketball.
10	How may officials apply the rules and regulations within sport?	Use of signals, communication of decisions to players and other officials, positioning.
1	Give an example of an unopposed stationary drill.	Complete a simple pass to a partner, repeating this without moving OR other relevant sporting example.
2	Give an example of a travelling drill.	An activity where you are moving within the drill e.g. dribbling with a ball at your feet OR other relevant sporting example.
3	What does the use of a passive defender mean?	When the defender/opposing player can be involved in the game but cannot block/tackle/intercept to simplify the challenge of the activity.
4	What does the use of an active defender mean?	An opponent can block/tackle/intercept to increase the challenge of the activity.
5	What is a conditioned practice?	Using rule changes to focus on a specific skill.
6	Why are demonstrations effective?	Allow participants to see the 'perfect model' of what a skill should look like – this allows them to attempt to replicate this.
7	What types of feedback can be used to aid demonstrations?	Peer feedback (visual) and self-feedback (physical).
8	Why are teaching points useful when coaching a skill?	Th allow the coach to highlight correct and safe way to perform technique. The use of short sentences or key points breaks down each part of the skill.
9	Identify 5 areas that you should consider when organising and demonstrating skilled sessions.	Any 5 from: Space – areas used, equipment, organisation of participants, e.g. in working pairs or groups, timing, demonstrations, positioning.
10	Identify 4 areas you should consider when supporting participants completing skilled activities.	Observing participants, providing instructions, providing teaching points, providing feedback to participants

## COMPONENT 3: DEVELOPING FITNESS TO IMPROVE OTHER PARTICIPANTS PERFORMANCE IN SPORT AND PHYSICAL ACTIVITY

<b>Learning Aim A</b>	1	What types of activities require good levels of aerobic endurance and muscular endurance?	Events/sports lasting more 30 minutes.
	2	What types of sports require good levels of muscular strength?	Activities requiring force, e.g. throwing events.
	3	What types of activities require good levels of speed?	Activities requiring fast movement, e.g. sprinting
	4	What does the FITT principle stand for?	Frequency – the number of training sessions completed over a period of time, usually per week. Intensity – how hard an individual will train. Time – how long an individual will train for. Type – how an individual will train by selecting a training method to improve a specific component of fitness.
	5	Define progressive overload.	To progress, training needs to be demanding enough to cause the body to adapt, improving performance.
	6	Define reversibility.	If training stops, or the intensity of training is lowered, fitness gains from training are lost.
	7	Define specificity.	Training should meet the needs of the sport, or physical/skill-related fitness goals to be developed.
	8	How do you calculate maximum heart rate?	220 – age.
	9	What is the aerobic training zone?	60 – 85%
	10	What is the relationship between RPE and heart rate?	RPE x 10 = Heart rate.
1	What are the fitness tests for aerobic endurance?	Multi-stage fitness test, also known as the bleep test (20 metre distance), Yo-Yo test, Harvard step test, 12-minute Cooper run or swim.	
2	What are the fitness tests for muscular endurance?	One-minute press-up, one-minute sit-up, timed plank test.	
3	What are the fitness tests for flexibility?	Sit and reach test, calf muscle flexibility test, shoulder flexibility test.	
4	What are the fitness tests for speed?	30 metre sprint test, 30 metre flying sprint.	
5	What are the fitness tests for muscular strength?	Grip dynamometer, 1 Rep Max.	
6	What are the fitness tests for body composition?	Body Mass Index (BMI), Bioelectrical Impedance Analysis (BIA) waist to hip ratio.	
7	What are the tests for agility?	Illinois agility run test, T Test	
8	What are the tests for balance?	Stork stand test, Y balance test.	

9	What are the tests for coordination?	Alternate-Hand Wall-Toss test, stick flip coordination test.
10	What are the tests for power?	Vertical jump test, standing long/broad jump, Margaria-Kalamen power test.
11	What are the tests for reaction time?	Ruler drop test, Online reaction time test (reaction test timer).
1	What training methods are used to help improve aerobic endurance?	Continuous training – steady pace and moderate intensity for a minimum period of 30 minutes. Fartlek training – the intensity of training is varied by running at different speeds and/or over different terrain. Interval training – work period followed by a rest or recovery period. Circuit training – use of several stations/exercises completed in succession with minimal rest periods in between to develop aerobic endurance.
2	What training methods are used to help improve aerobic flexibility?	Static active – the performer applies internal force to stretch and lengthen the muscle. Static passive – requires the help of another person or an object, e.g. a wall to apply external force causing the muscle to stretch. Proprioceptive Neuromuscular Facilitation (PNF) technique – the technique involves the use of a partner or immovable object, isometric muscle contractions to inhibit the stretch reflex.
3	What training methods are used to help improve muscular endurance?	Free weights and fixed resistance machines – high repetitions and low load. Circuit training – using body resistance exercises or weights with low loads and high repetitions.
4	What training methods are used to help improve muscular strength?	Free weights and fixed resistance machines – high loads and low repetitions.
5	What training methods are used to help improve speed?	Acceleration sprints – pace is gradually increased from a standing or rolling start to jogging, then to striding, and then to a maximal sprint Interval training – work period followed by a rest or recovery period. For speed short, high intensity work periods, increasing the number of rest periods and increasing work intensity (compared to aerobic endurance training). Resistance drills – hill runs, parachutes, sleds, bungee ropes, resistance bands.
6	Describe 3 long term effects of aerobic endurance training on the body systems.	Any 3 from: Adaptations to the cardiovascular and respiratory systems, cardiac hypertrophy, decreased resting heart rate, increased strength of respiratory muscles, capillarisation around alveoli.
7	Describe 3 long term effects of speed training on the body systems.	Adaptations to the muscular system, increased tolerance to lactic acid.
8	Describe 3 long term effects of flexibility training on the body systems.	Any 3 from: Adaptations to the muscular and skeletal systems, increased range of movement permitted at a joint, increased flexibility of ligament and tendons, increased muscle length.
9	Describe 3 long term effects of muscular endurance training on the body systems.	Adaptations to the muscular system, capillarisation around muscle tissues, increased muscle tone.
10	Describe 3 long term effects of muscular strength and power	Any 3 from: Adaptations to the muscular and skeletal systems, muscle hypertrophy, increased tendon and ligament strength, increased bone density.



	training on the body systems.	
1	Define 'aims' and 'objectives' of a personal training programme.	Aims – details of what they would like to achieve for the selected sport. Objectives – how they intend to meet their aims using an appropriate component of fitness and method of training.
2	What is a PAR-Q?	Physical Activity Readiness Questionnaire.
3	Define motivation.	The internal mechanisms and external stimuli that arouse and direct behaviour.
4	What is intrinsic motivation?	Behaviour that is driven by internal rewards such as enjoyment or a sense of satisfaction.
5	What is extrinsic motivation?	Behaviour that is driven by external rewards, such as trophies or money.
6	What does 'SMARTER' goals stand for?	Specific, measurable, achievable, realistic, time-related, exciting, recorded.
7	Define short-term goals.	Set over a short period of time, between one day and one month
8	Define long-term goals.	What a participant wants to achieve in a number of months/years, and the best way of doing this.
9	Describe two influence of goal setting on motivation.	Provides direction for behaviour. Maintains focus on the task in hand.
10	Describe four benefits of motivation on a sports performer.	Increase participation, maintain training and intensity, increased fitness improved performance.





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