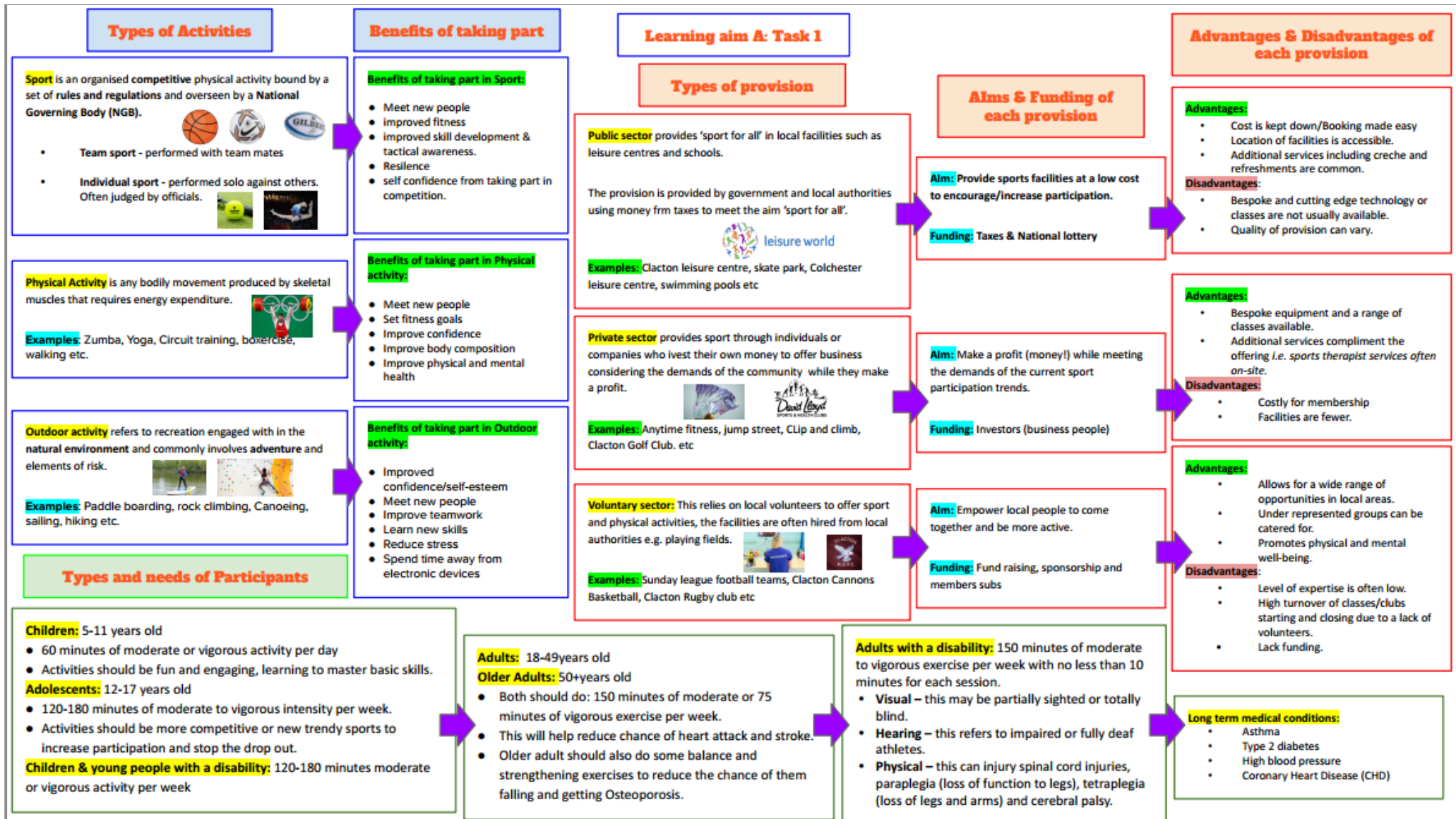


Component 1- Preparing Participants to Take Part in Sport and Physical Activity



Component 1 – How can we prepare participants to take part in sport and physical activity?

Cost: The amount of disposable money a person has can be a barrier to participation.

Activities that have a lot of equipment or specialist equipment can make it very expensive and membership fees.

Transport can be costly as well, does the activity mean you have to travel lots? Petrol and train tickets are expensive.



Examples expensive sports:

Skiing, cricket, golf, horseriding

Examples of affordable sports: Football, Basketball, Netball

Possible Solutions:

- Discounted sessions
- Over 50's or student discounts
- Free parking at facilities
- Hire equipment
- Shuttle buses

Accessibility: For people to participate in sport and physical activity, facilities, sessions and resources need to be available in the area.



If activities are too far away then it is unlikely that you take part in them, especially if you do not have a car.

Disabilities may cause some issues with accessibility, if a swimming pool does not have a chair hoist then they would not be able to access the pool.

Examples: if you do not live near a swimming pool then you are less likely to either learn to swim or get involved in swimming.

If there are no climbing walls in your area, again you are less likely to participate in climbing.

Possible Solutions:

- Taster days
- Better staff training to support individual needs
- Increased range of sports
- Ramps
- Assistive technology – pool hoist, braille and hearing loops.

Barriers to participation

Time: lack of time due to other commitments

Long working hours, family commitments, school and a lack of free time affect participation in sport.



Example: working 9-5pm, 5 days a week and also having child will reduce the amount of time you have to attend a sports club or exercise class.

Methods to address barriers to participation

Possible Solutions:

- Extended opening hours
- 24 hour opening times
- Creche for younger children

Possible Solutions:

- Private changing rooms
- Marketing campaigns have used a range of people with different body shapes in e.g. This Girl Can
- Allowed participants to wear clothing that they feel comfortable in.
- Parents and child sessions

Cultural barriers: Some religions and cultures have laws or expectations which make it more difficult to participate in sport.

- Restrictions on clothing for women
- Time of day may also affect participation, as many religions have specific times for rituals and worship.
- Lack of role models
- Specialist sports clothing is hard to come by and expensive



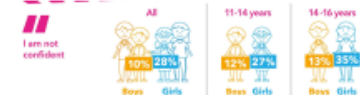
Examples: Ramadan, where Muslims fast from April to May and Salat is when Muslims pray 5 times a day, this can make it difficult to fit in physical activity.

Possible Solutions:

- Women-only sessions staffed by female staff
- Ask employers to reflect on diversity of their staff
- Cultural and diversity training for all staff
- Prayer rooms at leisure centres or extended opening times to offer more variety
- Adapted sports wear

Personal barriers: A range of other personal barriers may exist:

- Body image
- Lack of self confidence
- Parental/guardian influence
- Low fitness levels
- Concerns around existing health conditions
- Limited or time off previous participation



Component 1- Preparing Participants to Take Part in Sport and Physical Activity

Protective equipment

Learning aim B: Task 2

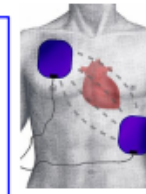
Protective equipment category	What injuries/hazards does the equipment protect against?	Sport/physical activity/outdoor activity its used in.
Goggles	Used to protect the eyes from weather conditions, water and projectiles. In skiing goggles protect your eyes from snow blindness.	Skiing Snowboarding Swimming Shooting
Mouth Guard	Mouth guards typically cover the upper front teeth, and are designed to protect against broken teeth which can lead to, cut lips and other damage to your mouth.	Boxing Rugby Basketball
Flotation device	A personal flotation device (PFD) is something you wear that will keep you afloat should you enter the water. It will reduce your chance of drowning.	Open water swimming Sailing Canoeing Sailing Kayaking Paddle boarding
Helmets	Helmets absorb, dissipate, and reduce impact forces to an athlete's head and brain during collisions between players or a fall to the ground.	American football Rock climbing Canoeing Ice Hockey Racing driving Skiing Cricket
Body protection	Contact sports always put stress on your body, all body armour is designed to minimise the impacts of regular contact training on your body. The main function of shin pads is to protect the soft tissues and bones in the lower extremities from external impact. Shin guards provide shock absorption and facilitate energy dissipation, thereby decreasing the risk of serious injuries.	Rugby Cricket Horseshooting Football

First aid

Defibrillator: A defibrillator is a device that gives a high energy electric shock to the heart of someone who is in cardiac arrest.

It is automated and takes the user through the process step by step. Where for find them?

- Schools
- Leisure centres
- Train stations
- Work offices
- Public spaces



First aid kit:

It's important to have a well-stocked first aid kit in your home so you can deal with minor accidents and injuries.

Some items you may find in a first aid kit:

- Scissors
- Plasters
- Bandages
- Eye wash
- Tweezers
- Burn gel
- Ice packs



Officials

Officials: All sports will have some form of official, that might be a; referee, judge or umpire.

Some of the equipment they will need is:

- Whistle
- Earpiece
- Watch
- Microphone
- Disciplinary cards
- Note pad



Officiating technology

VAR: video assistant referee, is used in football to check decisions made by the officials, such as penalties, offsides and fouls.

- Pros:**
- Better decision making
 - Player discipline
 - Avoid controversial decisions

- Cons:**
- Time wastage
 - Decisions can still be wrong
 - Only used at top level games



Hawkeye: Is used in tennis and cricket, it used 10 cameras to predict where the ball will land.

- Pros:**
- Better decision making
 - Decision made on under 10 seconds

- Cons:**
- Accurate to 5mm so there are still errors
 - Only used at top level games



Goal line technology: Uses the same technology as Hawkeye, 14 high speed cameras are used to detect if the ball has fully crossed the goal line or not. The referee is notified through a watch on his wrist. It will vibrate for 10 seconds if a goal is scored.

- Pros:** Accurate decisions.
Cons: 5mm error margin, costly & only used in the top leagues.

Component 1 – How can we prepare participants to take part in sport and physical activity?

Sports facilities

Sportshalls: A number of sports can be played in a sports hall, there will be court markings for different sports.

For example:

- Volleyball
- Basketball
- Handball
- Netball



Pros:

Can rent a hall easily in the public sector.

Cons:

It can be expensive and might not be available when you need it.

4G pitches: All weather pitches used for football and rugby. They have artificial grass and a rubber layer to help replicate the bounce of a grass surface.



Pros: Can be used in all weather conditions, they can be rented in the public sector.

Cons: Injuries e.g. skin burns and joint injuries due to the impact. They can be expensive to rent.

Indoor climbing wall: A climbing wall is an artificially constructed wall with grips for hands and feet. It replicates the experience of outdoor climbing in a more accessible environment. Climbing walls are usually found in the private sector.



Pros:

More affordable and you can rent equipment.

Cons:

High risk activity, expensive equipment if you buy your own, it can be repetitive. You may have to travel far as there are not that many indoor walls.

Swimming pool: Can be used for fitness swimming or fun, you can play water polo and in some pools have a go at diving. They can be found in the public and private sector.



Pros: Accessible to all at a local leisure centre, lower prices in the public sector.

Cons: They have a timetable which means they may not be available when you need it.

Gym: Fitness centres and gyms will have a number of cardiovascular and weight machines to suit your fitness needs. They are found in the public and private sector.



Pros: A variety of equipment, in the public sector the membership will be more affordable or pay as you go. The equipment in the private gyms will be state of the art.

Cons: Private gyms are more expensive and require membership fees. Equipment in public gyms may not be the newest.

Dry Ski slopes: A dry ski slope or artificial ski slope is a ski slope that mimics the attributes of snow using materials that are stable at room temperature. They are found in the private sector.



Pros:

Cheaper, can do it in any conditions, you can hire equipment.

Cons:

It's not the same as snow, they can be far away and there aren't very many of them.

Footwear

Hiking boots: High sides to support ankles, waterproof, thick firm soles to provide grip on rocky terrain.



Football boots: Studs to reduce the chance of slipping.



Basketball trainers: High sides to reduce chance of rolling an ankle, rubber soles with grip to reduce the chance of slipping.



Running trainers: Cushioned to reduce impact on the joints and gripped soles.



Clothing

Warm gear: Feather weight fabric utilizes moisture transportation, which wicks sweat away from the wearer's body and filters it through the material, where it is then evaporated. This keeps athletes cool and dry in hot conditions.

Cold gear: In cold conditions the body loses 4-5% in performance. Cold gear is specially designed to help keep you warm; Light weight, soft brushed interior, 4 way stretch to stop it riding up and it traps air to keep you warm. They also have quick dry fabric so sweat can evaporate quickly to prevent chill.

Aerodynamic: Mainly used in cycling, tight specialist fabrics like lycra cling to your skin to reduce drag. Wearing lycra when cycling makes your 2km per hour quicker! They also wick sweat away to keep you warm and dry.

Waterproof jackets: Waterproof materials mean that water will bead up and roll off, this is because the fibres are so close together that the water is unable to penetrate it. Hikers will always have a waterproof jacket with them! It will keep them dry and protect them from the elements.

Compression

Compression clothing: Tight fitting clothing that has many benefits:

- raises the temperature of the skin and tissues to increase blood flow and promote healing.
- Reduces muscle vibration that can cause muscles to burn energy and cause fatigue
- support the body and reduce the chance of injury



Adaptive equipment

Sports wheelchairs: Cambered wheels to improve a player's turning circle and stability in performing sharp turns. The addition of rear caster wheels to stop athletes from falling out backwards and carbon fibre spokes to increase the strength of their wheels.



Pros: They are light weight and move easily.

Cons: Expensive and need to be specially made.

Cheetah blade: A running blade used to assist people with amputations. They make it easier for people to take part in sports or physical activities.

Pros: Blades are tailor made for each individual.

Cons: They are expensive and you may have to travel far to get fitted for one.



Smart watches

Smart watches: a wearable computing device that closely resembles a wristwatch or other time-keeping device. They track a number of things that can help to improve your health and fitness. E.g. iwatch, garmin & fitbit.

Advantages:

- Track heart rate
- Calories
- Activity
- GPS and many more features!

Disadvantages:

- Cost, it can be expensive
- Tracking is inaccurate



GPS

GPS: Global Positioning System. Athletes wear GPS trackers when they train and play. They give them data on their distances, speeds and area covered.

Advantages:

- Reduce the chance of injury
- Help you improve

Disadvantages:

- Cost, it can be expensive
- It doesn't track touches on the ball
- Unreliable when used inside



Hearing impairment: Radio aids help reduce the impact of background noise. The coach or instructor wears a transmitter and the participant wears the receiver.

Visual impairment: Adapted equipment can be used e.g. bells inside balls, brightly coloured balls or larger balls.

Pulse Raiser

Pulse raiser: This is a gradual increase in heart rate. To elevate the heart rate so it matches the intensity of the exercise about to be undertaken.

How long: 3-5 minutes

Example activities:

- Jogging
- Skipping
- Star jumps
- Side steps
- High knees
- Spotty dogs

Musculoskeletal Responses to a pulse raiser

The musculoskeletal system is the interaction of the muscles, bones and connective tissues (tendons and ligaments)

1. **Increased muscle temperature** – muscle contractions create movement and several by-products, one of which is heat.
2. **Increased pliability of muscles** – When the muscles and ligaments/tendons are warm they can stretch further. This will make movements much easier when you are playing sports.
3. **Reduced risk of muscle strain** – the chances of injury are reduced when a pulse raiser is carried out. This is because your muscles are able to move and stretch further as they are warm.

Cardiorespiratory



Musculoskeletal



Learning aim C: Task 3

Body's response to a pulse raiser

Cardiorespiratory Responses to a pulse raiser

1. **Increased heart rate** – this is a response to the oxygen demand at muscle sites. The muscles need oxygen to help break down energy to produce movement. The more movement a person does the more oxygenated blood they will need.
2. **Increased blood flow to muscles** – blood is re-directed to areas of need. *i.e.* working muscles. If a person starts to jog the muscles in the lower body will need to contract more often and with more force. To do this the muscles will need more oxygenated blood.
3. **Increased breathing rate** – This is a bodily response to the lack of oxygen at tissue sites. Breathing rate will go up to cope with the demand for more oxygen.
4. **Increased depth of breathing** – this aids a faster removal of waste products. With each breath you will be able to breathe out more carbon dioxide.
5. **Increased removal of carbon dioxide** – this is the waste product of respiration.

Cardiorespiratory & Musculoskeletal Responses to stretching

Response of cardio-respiratory system:

- **Static stretches** - Further drop in heart rate and breathing rate due to stillness when performing the stretches.
- **Dynamic Stretches** - Maintained elevated heart rate and breathing rate as this involved active movements.

Response of musculo-skeletal system:

Extends the muscle beyond a normal state to reduce the risk of a tear during the sport or activity session.

Mobilisers

Mobilisers: These are exercises that take the joint through their range of movement. The movements will start small and progressively get bigger as you warm up.

Example activities:

- Wrist circles
- Shoulder rolls
- Lunges
- Open and close gates at the hips
- Ankle circles
- Hip rotation

The body's response to mobilisers:

1. **Slight drop in Heart Rate** – As exercise intensity reduces heart rate will fall to reflect this.
2. **Slight drop in breathing rate** – The rate of breathing will fall by at least a 50% reduction.
3. **Increased Synovial fluid** – Mobiliser actions will increase production of synovial fluid in the joints to increase lubrication of the area. This will increase the range of movement possible.



Preparation stretches

Preparation stretches: These are completed once the muscles are warm. The stretches picked should target the muscles that will be used in your chosen activity.

How long: Hold each stretch for 10-15 seconds and can be repeated

Static stretch: when a person holds a position for a short period of time.

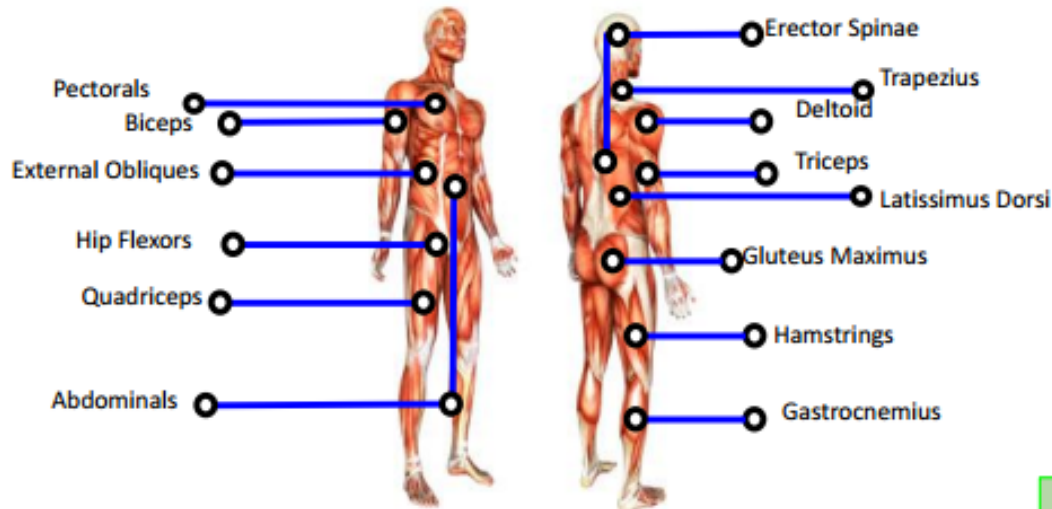


Dynamic stretch: when a person carries out a stretch on the move.



Component 1 – How can we prepare participants to take part in sport and physical activity?

Muscular system



Example stretches

Obliques: Dynamic stretch



Deltoids: Static stretch



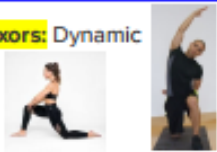
Bicep & Tricep: Static stretch



Erector Spinae: Static stretch



Hip Flexors: Dynamic Stretch



Gluteus Maximus: Static stretch



Quadricep: Static Stretch



Hamstrings: Static stretch



Gastrocnemius: Static stretch



Adapting warm ups

Adapting:

It may be necessary to adapt your planned warm up to suit the participants needs. Warm ups can be adapted in a number of ways:

- **Intensity** of the activity (moderate or vigorous intensity)
- **Impact** (high or low)
- **Timings**
- Different type of **stretch**

Low impact activities:



High impact activities:



Sports specific activities

The last part of the warm up should include the opportunity to practice some of the skills used in the selected sport/physical activity or outdoor activity.

Examples of sport specific activities

- **Football** - passing, 2v2, shooting drills.
- **Basketball** - layup and rebound drills, ball handling skills, 3 man weaves
- **Boxing** - shadow boxing, boxing combinations
- **Kayaking** - practise the paddling action out of the water to help mobilise the shoulder joints

Organising your warm up

Things to think about when organising your warm up:

- **Space:** Is it indoor or outdoors? How well you mark out your area?
- **Indoor or outdoor:** Is the weather suitable e.g. too hot, too cold or raining?
- **Equipment:** What equipment do you need and how much?
- **Participants:** Will they be in groups or in pairs?
- **Timings:** How much time will you allocate to each section?

Delivering your warm up:

Positioning: Think about where you stand when giving instructions. All participants should be in front of you and looking at you.

Demonstrating: You should be prepared to demonstrate each activity and you should also have alternative activities in case you need to adapt the warm up.

