



BTEC TECH Award in Sport

Equipment and Technology Required for Sport and Physical Activity



Sport Equipment

Clothing (sports kit, waterproof clothing, training clothing) - improved thermoregulation, clothing designed to improve aerodynamics.

Footwear (trainers, studded boots, sport specific footwear) - sport-specific new designs or materials; improve grip; rebounding.

Sport-specific equipment (participation equipment, travel-related equipment, scoring equipment, fitness training equipment) - new materials for lightness and strength to include composite materials, new design of equipment to improve performance.

Protection and safety equipment (mouth protection, head protection, eye protection, body protection, floatation devices; first aid equipment) - improved protection design; lighter weight; improved performance.

Assistive Technology and Equipment

- **Prosthetics** (Blades, Moto knee and versa foot, Upper limb prosthetics) - allowing individuals to participate in their chosen sport without facing accessibility barriers.
- **Wheelchairs** (everyday vs sport specific) - these are suited to fit athletes' bodies and their impairments, depending on their sport, and allow them to maximise their performances in competitions.
- **Hearing devices** - increased ability to communicate, improves personal safety, improve your performance.
- **Adapted equipment/ sports** (jingle balls, sound balls, tactile markings, beep baseball, goal ball) – improve enjoyment, improve performance, allow visually impaired individuals to access activities.

Officiating

- **Whistle**
- **Microphone**
- **Earpiece**
- **Timing Devices**
- **False starts**
- **Hawk eye**
- **Goal line**
- **VAR**

Helps with...

- Communication
- Decision-making
- Ball tracking
- Scoring
- Time-keeping
- Record-keeping

Performance Analysis

- **Smart watches** provide key data such as heart rate, steps, activity completed.
- **Heart rate monitors** help you determine exercise intensity and fitness.
- **Applications** can support specific aspects of performance analysis.
- **Action cameras** versatile and reliable cameras to record performance.
- **GPS** to track movement and positions during performances.
- **Sensors** collect data such as distance covered, heart rate, technique of skill etc.

Limitations of Technology

- **Time** (setting up, using equipment, compiling data, giving feedback to participant)
- **Access** (equality and unfair advantages as not all participants have access to technology)
- **Cost** (initial cost and follow-up maintenance of equipment)
- **Accuracy of data**
- **Usability** (specific trainer



Sports Facilities

- **Indoor** (sports halls, gyms, dance studios) – optimum environments, reduced risk of injury, versatile.
- **Outdoor** (Astroturf, MUGA, grass fields) – easily accessible, all weather materials, fresh air.
- **Simulated environment** (dry slopes, rock climbing walls, surf simulators, white water rapids) – no need to travel to participate in these sports.