



### Learning Objectives



Recall 3 different types of technology used in sport.

Explain how 3 different technologies are used in sport

Critically evaluate the use of technology in sport.

### 5.3 The impact of technology on physical activity and sport

**Start of the lesson**

**End of the lesson**

1. Name three types of technology in sport

2. Explain how three types of technology are used in sport.

3. Outline three positive impacts of technology in sport

4. Outline three negative impacts of technology in sport.

Start of the lesson:

**DOWNLOAD BAR**

0%      25%      50%      75%      100%



End of the lesson (Actual %):

**DOWNLOAD BAR**

0%      25%      50%      75%      100%



Name:



<https://www.youtube.com/watch?v=dqDZftgB2lw&feature=youtu.be>

- ✓ **Technology in sport** has grown massively over the years and has become a **fundamental** part of sport.
- ✓ It **divides opinion** with players, officials and fans but continues to play a huge part in the continued **development of sport**.
- ✓ You must be aware of the **impact of technology**
- ✓ You must be able to justify why the impact can be **positive** and **negative**
- ✓ Whilst being aware of the **different technologies** used.



<https://www.youtube.com/watch?v=4wG-5Zc6hww>

Task 1: In your last lesson, we discussed the impact of media and sponsorship on sport. You identified 5 areas of sport that were impacted. Can you name them below and discuss how you think each is affected by technology in sport.



performer - disappointed if goal is disallowed  
 technology is wrong  
 positive = improves in sport.



sport - ↑ sports standards



officials - receive negative feedback of many people or good feedback if spectators agree



spectators - angry if people who support a team if VAR is wrong. Positive - replays available.



media - sponsorship - advertising

## Technology

This is an area of sport that is constantly evolving.

**Task 2 A01/A02:** Research and describe the following types of technology in sport;

Hawkeye

optical ball-tracking device used as an aid to officiating in tennis and cricket.

Performance analysis aids

hawkeye, television match official (TMO)

Television match officials.

used in rugby union and rugby league to make decisions using replays of incidents.

**Task 4: A01/A03:** Complete the activity below.

**Activity** DATA

17 Look at Figures 5.24 and 5.25 showing the service pattern of two tennis players.

▲ **Figure 5.24** Service pattern of 'Player 1'

▲ **Figure 5.25** Service pattern of 'Player 2'

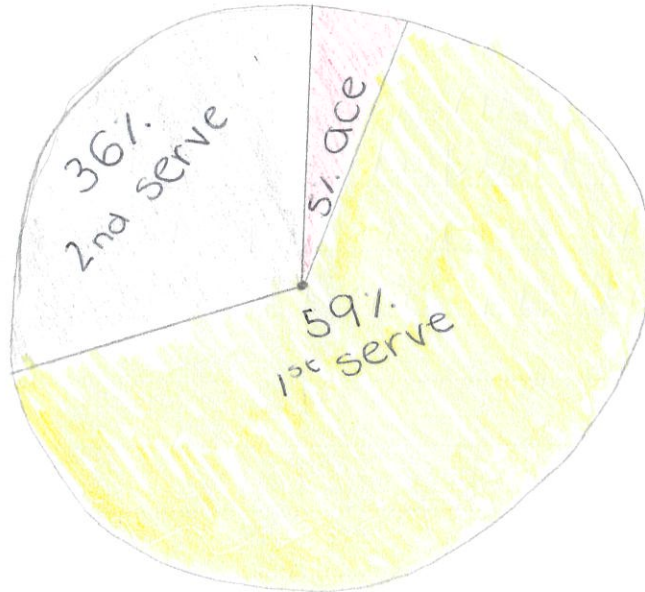
- Interpret the data: Which player has the higher percentage of aces?
- Present the data in pie charts. Draw two pie charts to present the data for Player 1 and two pie charts to present the data for Player 2. Each pie chart should show the percentage of aces, first serves and second serves in one half of the court.
- Analyse the data: if you were an opponent receiving the serve, how would your approach change for each player?

(a)

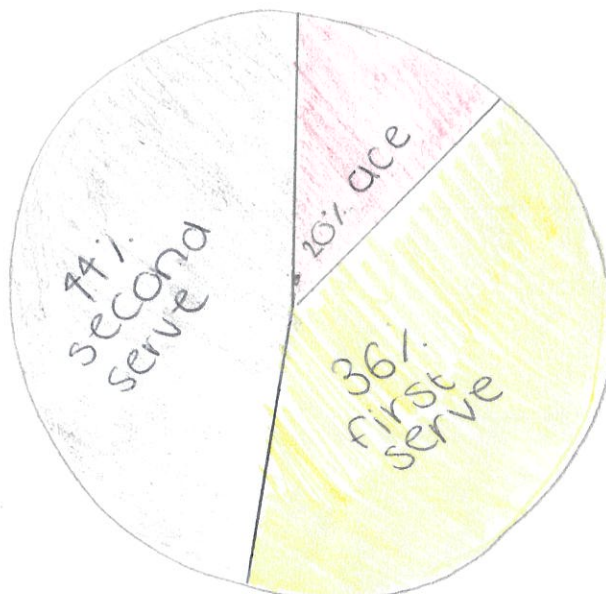
The second player has more  
ace's

(b)

Pie Chart 1



Pie Chart 2



(c)

if I was player 2, I would consider my position on the court more. A high percentage of 2nd serves are played in the middle of the court therefore, as an opponent, I ~~was~~ would move depending on this.

For player 1, many of the 1st serves are played at the bottom of the court therefore I would position myself there.



**Task 5: A01/A02 /A03** Using the textbook pp122 – 123 research the following types of technology in sport to answer the following questions.

## MATCH ANALYSIS

What is it?

a technology used in cricket and tennis used by officials to help make correct decision.

Which sports is it used in?

tennis + cricket + rugby + football

Give 2 sporting examples whereby the technology has been used.

1.

in tennis hawk-eye is used to decide whether the ball was in or out the court.

2.

in football VAR is used to decide if a goal was offside.

Can you explain one positive and one negative use of the technology in sport?

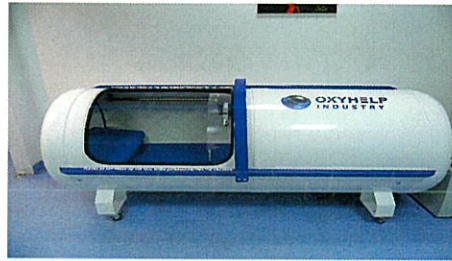
**Positive:**

allowed better feedback from coaches, ~~increases~~ helps to increase motivation and skill level as coaches can pick on more things for players to improve.

**Negative:**

Time taken waiting for decisions, such as deciding if a goal is offside using VAR, can be frustrating for spectators and players.

## HYPERBARIC CHAMBERS/ICE BATHS/OXYGEN TENTS



What is it?

help prevent injury  
rehabilitation from injury

Which sports is it used in?

prem football; rugby

Give 2 sporting examples whereby the technology has been used.

1. rugby players experience high impact collisions so may use ice baths.
2. long distance runners use oxygen tents to improve breathing

Can you explain one positive and one negative use of the technology in sport?

**Positive:**

help aid muscles which reduces time of.

**Negative:**

some materials are expensive so not always accessible.

# PROSTHETICS



What is it?

made for athletes with a specific disability. artificial body part.

Which sports is it used in?

- running, athletics

Give 2 sporting examples whereby the technology has been used.

1.

2.

Can you explain one positive and one negative use of the technology in sport?

**Positive:**

includes everyone -> everyone is able to take part.

**Negative:**

Many performers with prosthetics want to compete against able bodied which caused conflict.

**Task 7: A02/A03:** Using the table below, match the positive and negative impacts of technology on sport.

**Exam tip**



When discussing the impacts of technology, it is important to justify why the impact is positive and/or negative. When you justify something, you need to support your case with evidence, so provide an example to illustrate each positive and negative impact you mention.

	Positive impacts of technology	Negative impacts of technology
<b>Performers</b>		
<b>Sport</b>		
<b>Officials</b>		
<b>Audience/ spectators</b>		
<b>Sponsor/ company</b>		

Ensures fair play and helps the sport project a good image, which reflects well on the sponsor.

Not available at all levels of sport.

Provides officials with additional help when making decisions if they require clarification.

Officials are able to communicate with each other via microphones and earpieces.

Reinforces and confirms good and correct decisions.

Can undermine officials if a poor decision is flagged up by technology and broadcast to a wide audience.

Some officials may be too reliant on the technology and make fewer on-field decisions themselves.

The best technology may not always be available because the equipment is expensive to buy and install.

Too many reviews can disrupt play and put a performer at a psychological disadvantage.

Makes competition fairer because poor decisions can be changed or reconsidered.

Guarantees that correct decisions are made.

Too many reviews during a match can disrupt play, slowing it down and annoying performers, officials and spectators.

Performance analysis aids can help to improve performance.

Performers may be able to use technology to ask officials to review decisions that go against them.

Enables spectators to see how decisions are made.

Provides spectators with confidence that decisions are fair.

The review process can add to the tension and excitement in sporting competitions.

Can cause unrest or poor spectator behaviour if a decision is not reviewed. The rules only allow a limited number of reviews.

Can cause problems if spectators viewing online or on television have access to technology that the official does not have access to and the official makes a bad decision.

