Teacher Resource

AIS History

Focus Questions

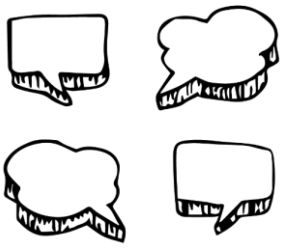
Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. Discuss the BTN AIS History story as a class.
2. How many gold medals did Australia win at the 1976 Olympic Games?
3. What did experts recommend to the Australian government after the 1976 Montreal Olympic Games?
4. What does AIS stand for?
5. What year did the AIS open?
6. How many gold medals did Australia win at the 1984 Los Angeles Olympic Games?
7. How many sports did the AIS offer an intake for when it first opened?
8. Why has the AIS had lots of international visitors since it began?
9. What type of support does the AIS offer its athletes? Name two.
10. What do you understand more clearly since watching the BTN story?

Activity: Class Discussion

Discuss the information raised in the BTN AIS History story. Ask students to record what they know and learnt about the AIS on a mind map. What questions do students have? Use the following questions to guide discussion:

- What does AIS stand for?
- What year was the AIS opened?
- Why was the AIS started?
- What is the purpose of the AIS?
- How does the AIS help Australian athletes?
- Is it important to have the AIS? Why or why not?
- What is sports science?
- How is sports science used to help athletes at the AIS? Give one example.



EPISODE 21
10th August 2021

KEY LEARNING
Students will learn more about the Australian Institute of Sport, why it was created and its role in Australia today.

CURRICULUM
HASS – Year 5-7
Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges.

Science – Year 5-6
Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 7
People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity.

Health & PE – Years 3 & 4
Identify and practise strategies to promote health, safety and wellbeing.

Health & PE – Years 5 & 6
Plan and practise strategies to promote health, safety and wellbeing.

Propose and apply movement concepts and strategies with and without equipment.

Health & PE – Years 7 & 8
Investigate and select strategies to promote health, safety and wellbeing.

Practise, apply and transfer movement concepts and strategies with and without equipment.

Activity: KWLH

Hold a class discussion about the information raised in the BTN AIS History story. What questions were raised in the discussion and what are the gaps in their knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

What do I know?	***What do I want to know?***	***What have I learnt?***	***How will I find out?***

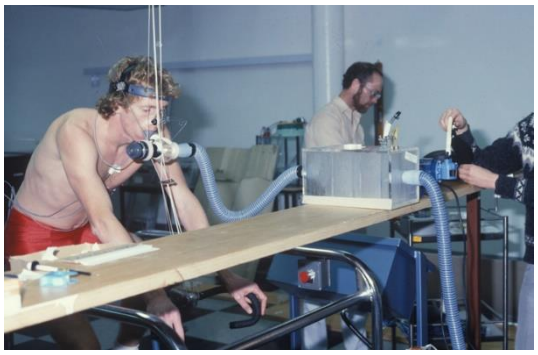
Research questions for Inquiry

- Why was the Australian Institute of Sport (AIS) created? Explore the history of the AIS. Choose what you think are the 10 most important events that have happened in the history of the AIS and record your findings on a timeline. Find and collect images, photographs, and video as part of your research.
- What is the role of the Australian Institute of Sport (AIS)? Create a fact sheet highlighting your findings. Research the 3 most important goals of the AIS and present your findings to the class.
- What is sports science? Come up with a class definition.
- What are some of the key events in the history of the Australian Institute of Sport? Write a summary for one key event, which answers the 5 W's – Who, What, Where, When and Why?
- Who works at the Australian Institute of Sport? Choose one role to explore in more detail. For example, physiotherapist, physiologist, psychologist, strengthening auditioning coach, bio mechanist, skill acquisition specialist or sports engineer.
- What sports are offered at the AIS? How does the AIS support athletes competing in this sport? Choose one to explore in more detail and present your findings in an interesting way.
- What athletes started their career at the AIS? Choose one to explore in more detail and create a biography on the athlete.
- How can you use science to improve sport? Give one example and explain using your own words.
- Choose one aspect of sports science that has helped athletes improve their performance, and research in more detail.

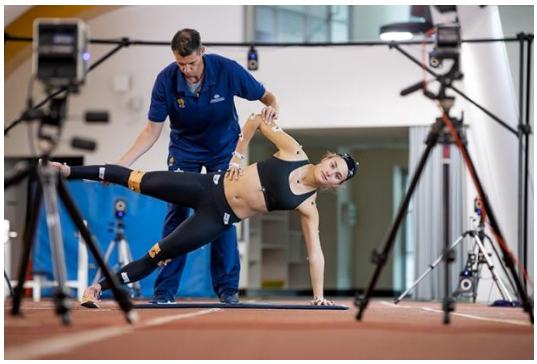
Activity: Visual literacy

Below are images of elite athletes and sports scientists at the Australian Institute of Sport. Students look at the image/s and then respond to the following questions:

- What do you see in this image?
- When do you think it was taken?
- Describe the setting and who is in the image.
- What do you think is happening?
- What questions do you have about what you see in the image?
- Create a caption for each image.



AIS Physiology 1989 - Ergometer Vo2 Tony Cox, Cycling



Athlete testing with strength and conditioning coach Aaron Holt in biomechanics lap 2019

Ben King (athlete) cycling biomechanics testing 2008

Athletes using recovery boots in the AIS recovery facility 2020

Activity: Imagine you're a sports scientist

Students will imagine they are a sports scientist with the aim to help improve an athlete's performance leading up to the Olympics. Students will choose an Olympian or Paralympian to focus on and write a day in the life of an athlete. Students can use the following to help guide their research.

- Goals – what are the athlete's daily goals and how will they reach them?
- Practise – why is practise important? What would be a good training schedule for the athlete?
- Diet – what would be a healthy and nutritious diet for the athlete?
- Technology – what technology could help the athlete improve their performance?
- Pressure – how can you encourage the athlete to push themselves physically?
- Skill – how could you measure the athlete's skills?

- Recovery – how could the athlete avoid or reduce injuries?
- Mentality – How could you help the athlete adopt a positive mentality even when facing challenges?
- Wellbeing – how can you help the athlete maintain a healthy wellbeing?

Activity: Future of sport

Before starting this activity, hold a class discussion, asking students what they think sports will look like in the future and how sports might evolve as new technologies become available. Think about safety, sustainability, convenience and innovation.

In small groups, students will imagine they are sports scientists, with the aim being to improve or adapt clothing to enhance athletic performance. Students will choose one sport to focus on and use the following as a guide during their research:

- How has the clothing evolved since the sport began? Create a timeline using images to show clothing from when the sport first began until now.
- How could the clothing be improved? For example, it could be more environmentally friendly, safer or improve performance.
- Write a brief for your design, using these headings as a guide: Background, Criteria, Your Challenge, Constraints.
- Sketch a drawing of the new clothing with labels to show its features – include annotated diagrams to show materials.
- How will it improve athletic performance?
- What new technologies will you incorporate in your design?
- What is unique about the design?

Presentation

Students will present their designs and share their ideas persuasively to the class. Encourage students to ask questions about their classmate's designs. Challenge students to make any improvements they can to their designs.

Further learning

Students will make a prediction about how science and technology might improve sport in the future. Students will illustrate their prediction/s and provide an explanation. Below are some examples:

- Virtual reality – to allow spectators to watch the game.
- Augmented reality – to help athletes practise and improve their technique.
- Physics – to improve athletic performance. Watch this Ted-Ed animated video to learn more about a high jumper that changed their technique to jump higher.

TedEd – An athlete uses physics to shatter world record

Useful Websites

- AIS 40th Anniversary: Our History – AIS
- Australian Institute of Sport Special – BTN
- AIS Special Teacher Resource – BTN
- Australian Olympic Team – Tokyo 2020
- Sports Science – BTN