



SASKATCHEWAN  
SPORTS  
HALL OF FAME

# STEM in Sports Technology

Have you ever wondered about how science, technology, engineering and math connect to sport? They are, in fact, a very large part of sport. In this lesson we will focus on one part of **Technology in sport**.

Teachers: Please use this as a starting point. Modify and add in any way that best suits your classroom.

## Grade focus:

4-8

9-12

## Objective:

Technology is used everywhere in sports, from the clothing athletes wear, the equipment they use to how the game is managed. This lesson will get students thinking about how technology is used to help referees and identify the needs yet to be met.

## Educational Outcomes:

CC4.2

CC5.2

CC6.1 – Career Ed

CC7.1

CC8.5

CC9.3

CC4.3

CC5.3

CC6.2 – Career Ed

CC7.5

CC8.6

CC9.5

CC6.1

CC6.4

## Lesson:

- For this lesson we are going to focus on how technology has helped with the job of referees. Referees in every sport must make split-second decisions on what they see that affects the results of the whole game.
- Using the list of sports provided (see attached), students will choose one sport to look at in depth. What penalties do they hand out? What calls do they have to make? Basically, what might happen for them to blow the whistle.
- Next you are going to analyze and research what technology is used now to help them. For instance, instant replay.
- Think about how these changes have affected the game.
- Once you have completed the above, think about what other things would be useful and could be added to the technology used to help referees or to make the sport better. What would you design?
- This lesson would best be done in group format. Each group could focus on one sport and do an audiovisual or oral presentation to the class.
- Students could pick any sport they are interested in that uses referees.
- To show progression of the changes in their sport, they could produce a timeline to show all the improvements made over time. (see attached)
- If the students want to take it further, they could produce a timeline to show all the technological advancement in their sport, not just for referees.

## Technology to help referees

What do referees have to look for during a game?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Research technologies developed to help referees do their jobs.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

How have these changes affected the game? This could be positive or negative.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

What additional technological changes have influenced your sport?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

# Timeline for sport technology

(students can modify to suit)

