CANADIAN OLYMPIC ACTIVITY CHALLENGE

CYCLING

There are about one billion bicycles in the world today, and it is estimated that half of the world's population knows how to ride a bike. It remains one of the most popular forms of transportation.

Bicycles were first invented in the early 1800s, but they resembled more like the bikes that parents now give young children. There were no pedals and you had to push them along the ground with your feet. It wasn't until the 1880s that bicycles started to look like what are used today.

Bicycle racing grew in popularity in the 1880s and 1890s and continues to attract participants worldwide. Cycling has been an Olympic sport since the first modern Olympics in 1896. For most of this time, there was only road and track cycling, but at the Atlanta 1996 Olympics, mountain biking was added. BMX was added in 2008 and BMX Freestyle was included for the first time at the Tokyo Olympics.

Although the technical demands vary between the disciplines, competitive cyclists require enormous endurance and leg strength. In most events, the athletes must sustain high speeds and still have enough energy for a fierce sprint over the last few hundred meters. To train for these demands, they can cover well over 30 hours of cycling each week during many months of the year.

Canadian cyclists have won three Olympic medals on the roads, 10 on the track, and another three for mountain biking.

Canada's only Olympic gold cycling medals have been won by Lori-Ann Muenzer and Kelsey Mitchell in the sprint. This is a track event where two cyclists go head-to-head. Often the first part of the race is very slow, as the athletes position themselves to gain the advantage when the sprinting starts. The final dash for the finish line is fast and furious.

To learn more about cycling, visit https://cyclingcanada.ca/.

SCHOOL PROGRAM

CYCLING
CYCLISME
CANADA

CYCLING TRIVIA

HIGHLIGHTS

Steve Bauer

- The most popular cycling race in the world is the Tour de France. This is a three-week stage race that covers about 3,500 km. In 1988, Canada's Steve Bauer placed an impressive fourth place in this famous race.
- The land speed record is held by Todd Reichert who clocked 144.17 km/hr without the assistance of drafting or motor pacing. The women's record is 126.52 km/h by French cyclist, Ilona Peltier. American cyclist Denise Mueller-Korenek holds the motor paced world record, reaching the speed of 296km/hr. She is considered the fastest cyclist ever.
- Breaking still air creates air resistance and the faster the cyclist is going, the more air resistance they encounter. When cyclists are racing, they often tuck in behind others and draft. Drafting reduces their air resistance and can save them energy for the finishing sprint.

FEATURED ATHLETE

KELSEY MITCHELL

OLYMPIAN, TOKYO 2020

Kelsey Mitchell has proven that doing different sports when you are young doesn't prevent you from being world class when you are older. As a kid she did gymnastics, basketball, soccer, and ringette. After university, she attended RBC Training Ground to see is she had what it took to be a world class athlete. They suggested track cycling. At the time, she didn't even own a bicycle. Within two years, she won gold at the Pan American Games in the sprint and won gold at the Tokyo Olympics. Kelsey proved that you can enjoy many sports when you are young before specializing and focusing on only one.

Learn more about Kelsey at:
https://olympic.ca/team-canada/kelsey-mitchell/

Learn more about RBC Training Ground at:
https://www.rbctrainingground.ca/

CYCLING

ACTIVITIES

Described below are Daily Physical Activity cycling activities that can be used in the gym. Have fun!

TEAM PURSUIT PACE LINE

The team pursuit is a track cycling event where two opposing teams of four cyclists start on either sides of the track. They race to cover 4km as fast as they can or to catch the other team. They draft to reduce their air resistance and change leads so that it is not always the same rider doing the hard work at the front. The team time is determined by the front wheel of the third rider. You can see what it looks like at https://www.youtube.com/watch?v=OTMzqoFdDKc.

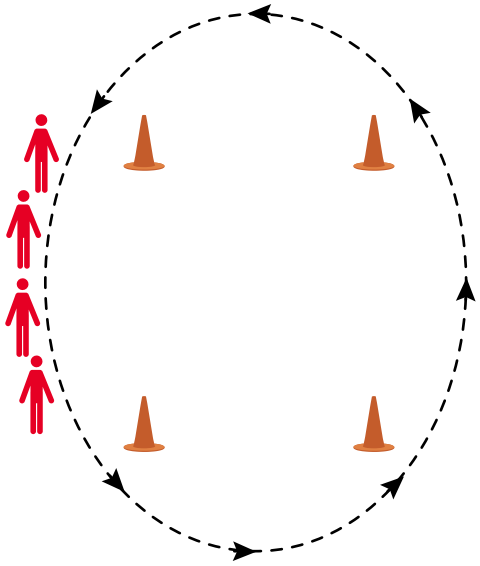
Participants: groups of 4

Space: gym or playground

Equipment: four pylons to mark out a square for every two teams.

SET UP:

- Set up the four pylons set in a square that is 3-5meters per side in a gym or open area outside.



ACTIVITY DESCRIPTION:

- In teams of 4, students complete 4 laps walking as fast as they can.
- The students must have their arms extended to the shoulders of the person in front of them.
- At the start of each lap, the first student does an exchange where they move from the front of the line to the back of the line and re-connect to the back of the line. Make the exchange as quick as you can.

ACTIVITY EXTENSION:

- Same activity but run instead of walk.
- Same activity but start two teams on opposite sides of the square. The race is over when you cover either 8 laps or the other team is caught.
- Round robin tournament of team pursuit quartets.

TIPS:

- Encourage students to create an oval shape as they move around the squares.
- Encourage students to do the exchanges as quickly as possible – moving from front to back at the end of each lap.

MATCH SPRINT

The Match Sprint or Sprint is one of the most exciting of the cycling events. It is a head-to-head sprint between two cyclists. Usually, the first couple of laps are very slow and tactical as the two racers focus on positioning themselves for the big sprint. Sometimes they can hold steady, trying to force the other rider up high on the curve to get them to start to sprint first. It is an event that requires quick thinking, balance, and explosive speed. You can watch it at https://www.youtube.com/watch?v=tD5pqFxymNQ.

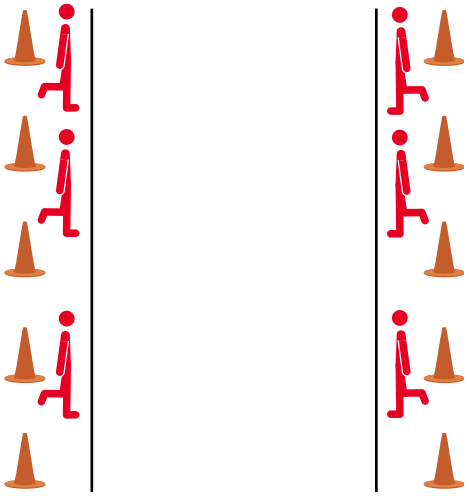
Participants: pairs

Space: gym or playground

Equipment: pylons

SET UP:

- Set up a row of pylons across the width of the gym. Set up another row 10m away. This creates two lines 10m apart.



ACTIVITY DESCRIPTION:

- Divide the students into pairs and line one student from each pair on one line and the other student on the opposite line. They should be facing each other.
- The students in each pair are racing each other to see who can reach the opposite line the fastest.
- Students start by standing on one foot. The first person to touch their other foot on the ground starts the race. Both runners then must race past each other to get to their finish line the first.

ACTIVITY EXTENSIONS:

- Try this as a round robin with the whole class.
- Instead of sprinting, students race by hopping on one foot, jumping, or running backwards.

BUILDING BALANCE

To be successful at cycling, you need great balance. While this is true for all of the cycling disciplines, it is especially true for BMX and Mountain Biking. There is a good chance that these are the types of bikes that many of the students in the class own, and that they love riding up over curbs, at the local bike park, or over rough terrain. These activities will help them hone their balance skills.

Participants: individuals

Space: gym or playground

Equipment: Balance beam, plank, physio ball or other equipment that is unstable and can be used to require students to practice balance skills.

ACTIVITY DESCRIPTION:

- On a balance beam or other piece of equipment, practice balancing. Start with something easy like walking across a balance beam or plank that is on the ground. Gradually increase the skills required by adding to the complexity of the tasks.
- Try different speed and tasks as they hold the balance. For example, touch your toes, stand on one leg, pick up another object without losing balance.

ACTIVITY EXTENSIONS:

- A small obstacle course that focuses on balance.

SAFETY:

- Be sure to have partners as spotters. Be sure to use gym mats where possible.

BRINGING IT TO THE CLASSROOM

HOW FAST DO THEY GO?

The women cyclists in a women's team pursuit can complete 4km in 4minutes and 20seconds. What is their speed in km/hr? If a rider completes 1km of riding in 60 seconds, what is their average speed in km/hr?

HOW QUICKLY DO THEIR LEGS SPIN?

A track cyclists legs move very fast! We call this cadence or leg speed. We measure it in revolutions per minute (RPM) – the number of pedal revolutions a rider completes in 1 minute. Sprinters often reach a peak cadence of over 160rpm.

How fast could you spin? Simulate cycling by jogging on the spot with high knees for 6 seconds. Count the number of times your right foot hits the ground. Multiply that number by 10 to calculate the RPM you might achieve if you were riding a bicycle. Try a few times and calculate the average.

Many schools host cycling programs, click on the **link** to find out more about Cycling Canada's Grassroots cycling program HopOn.