



THE GREENEST OLYMPIC GAMES

GRADES 7-8



HARDLY A DAY GOES BY WHEN YOU DON'T HEAR ABOUT THE EFFECTS OF CLIMATE CHANGE. THE TOKYO 2020 OLYMPICS ARE TAKING THIS SERIOUSLY AND TRYING TO MAKE IT A CARBON NEUTRAL GAMES. WHAT IF YOU COULD HELP? WHAT IF YOU COULD HELP MAKE THE CANADIAN OLYMPIC TEAM CARBON NEUTRAL? WHAT IF YOU COULD HELP MAKE THIS CHANGE GO VIRAL?



A girl donates her mobile phone in one of the collection points in Japan



The Musashino Forest Sport Plaza, a new permanent venue to be used during the Olympic and Paralympic Games Tokyo 2020

Solar panels on the roof and other state-of-the-art technology help reduce the facility's carbon footprint.



How do you host hundreds of thousands of athletes, coaches and fans without damaging the environment? This puzzle has kept the staff of the Tokyo 2020 Olympic Games awake at night.

Toshiro Muto leads the Tokyo 2020 Olympic Organizing Committee. His days are busy with all the demands of hosting the biggest sporting event in the world. But he and his team make time for their environmental goals. "We believe that combating climate change is important." Keeping waste and carbon low shows how the Japanese culture values the health of the planet.

When a city bids to host the Olympics, they must include a plan to take care of the environment. Sometimes their plans and targets are too hard to meet. London 2012 promised to have a green Games, but they still got 90% of their energy from fossil fuels, which are harmful for the environment. Rio 2016 built stadiums that were too big and costly to use after the Games.

If there was a gold medal for taking care of the planet, Tokyo 2020 would want to win it. They want to make their Games the most environmentally friendly in Olympic history. They will aim to have zero carbon and waste output. Even the medals are made of recycled things.



ZERO CARBON

Burning fossil fuels makes a gas called carbon dioxide. This gas causes climate change. Being carbon neutral means that all the carbon dioxide you make is taken out of the air.

Heating and cooling buildings takes massive amounts of energy. If the primary source of energy is fossil fuels, this can make it impossible to be carbon neutral. Transportation is also a major source of carbon. So, hosts need to find ways to use renewable energy like solar or hydro electricity.

Japan is using these Games to change Tokyo into a carbon neutral city. New green technology is being used to lower carbon and create clean energy. Solar roads will absorb the sun's energy to power buildings. Improved trains and busses will use less energy. The city will grow more urban forests and create new public green spaces to absorb carbon.

WASTE REDUCTION

Any big sporting event can create a lot of garbage. But Tokyo is determined to have a zero waste Olympics. This will take them far beyond reducing food waste and limiting packaging.

Almost all items and goods bought for the Games will be re-used or recycled. This includes everything from the spoons to the podiums. Tokyo 2020 will also have a sustainable supply chain. The factories that make all the foods and goods used must reduce waste at every step of production.

Project BATON does just that. For example, the Village Plaza (the center of the Olympic and Paralympic Village) will be built using timber donated from the regions of Japan. After the Games, the Plaza will be taken apart and the pieces will be returned to the regions that donated them. Waste not, want not.

THE MEDAL PROJECT

The Olympics will give Tokyo the chance to model leadership. Even small things done to save the planet sets good examples. Tokyo 2020's Medal Project will show recycling in action at every medal ceremony. Mining can be hard on the environment. So, instead of mining to make medals, Tokyo 2020 will recycle. They will make their medals using old smartphones and small appliances. People donated their devices for the project, including the Canadian Olympic Committee who donated 100 old cell phones. From this came enough gold, silver and bronze to make over 5,000 medals. They are turning garbage into the symbols of victory. This shows how creativity can reduce waste.



Tokyo Medals made from recycled waste

BEING BETTER

The Olympic Games have become more than just a sports competition. The Olympics celebrate humanity and challenge us all to be better. To try for excellence, to respect others and to make new friends. Increasingly, the Games are challenging us to take better care of our environment and saving our planet. If such a large sports event can reduce its environmental footprint, we can all do a bit more.



SCHOOL PROGRAM



RECLAIMING TOKYO BAY

Cleaning up Tokyo Bay for the triathlon and marathon swim is a big task. It may just be too hard for Tokyo 2020 organizers. Heavy rains overwhelm the Tokyo sewer system. Dirty water flows into the rivers and then into Tokyo Bay. The water quality then drops and swimming in the Bay can make you very sick. Tokyo has enlarged some of its sewer pipes to send more run-off water to the treatment plants. But rebuilding the whole 16,000 km sewer system is too expensive. So, they are turning to oysters to filter the Bay. Each oyster can filter 400 liters of water per day. They have been planting bamboo shoots along the shore to make a good environment for the oysters. Progress is being made. The 2018 swim season lasted six weeks longer than the year before. But no one knows if the Bay will be safe enough in the summer of 2020.



Tokyo Bay and the Rainbow Bridge



RECYCLED UNIFORMS

TV always zooms in on the host team, and viewers will see a lot of Team Japan. They will be outfitted in recycled uniforms. Their uniforms will be made from old donated clothes. The manufacturer will use the old materials to make new uniforms. It will also help the fashion industry be more sustainable. The fashion industry produces 10% of the world's greenhouse gases and 20% of the world's wastewater.



Tokyo's recycled uniforms



SCHOOL PROGRAM

Talk About It!

Should major sporting events be concerned about their environmental impacts? Why or why not?

Do you think smaller projects like making medals and team uniforms from recycled materials are effective environmental initiatives? Why or why not?



1. MAKING TEAM CANADA CARBON NEUTRAL

What if Team Canada went carbon neutral? Imagine that you and a group of other students work for an environmental consulting firm. The Canadian Olympic Team estimates that the entire team of 400 athletes, coaches and team staff will produce 650 metric tons of carbon, that is the same amount that 140 cars produce in a year.

The Canadian Olympic Team will consider proposals from many consulting firms and will select the best plan. **They want you to make a PowerPoint presentation outlining your plan to help them be carbon neutral. Use the ideas in the article and information on the Internet to come up with a plan. The most creative plan wins the contract.**

ACTIVITY EXTENSION

A sponsor has agreed to plant a hectare of trees for every medal that Canada wins at the Tokyo 2020 Games. If Canada wins 22 medals, how many tons of carbon dioxide will be absorbed? What percentage of Team Canada's 650 tons will the trees absorb?

2. INSPIRING CHANGE

Canada's Olympians can inspire people to take better care of the environment. The Canadian Olympic Team wants to launch an advertising campaign that challenges people to reduce their carbon footprint. They want it to focus on taking public transit and want the ads to be placed on bus shelters and inside subway cars. **It should feature athletes who will be competing in Tokyo. Work as a team to design the ads.**

ACTIVITY EXTENSION

The Canadian Olympic Committee wants to develop a pledge campaign for Team Canada athletes to use on their social media platforms. This would feature athletes pledging to reduce their carbon footprint and challenging others to take the pledge. The campaign will be featured on the radio. Work as a team to develop the three 20 second radio ads explaining the pledge campaign. Present these to the class.



SCHOOL PROGRAM