

The contemporary topic '2018 Winter Olympic Games' not only supports the Australian Curriculum, but also focuses on the Cross-Curriculum Priority: Asia and Australia's engagement with Asia, as well as integrating General Capabilities across all Key Learning Areas K-10

GENERAL CAPABILITIES

Literacy; Numeracy; Information and communication technology capability; Critical and creative thinking; Personal and social capability; Ethical understanding; Intercultural understanding; Civics and citizenship; Difference and diversity; and Work and enterprise.

GEOGRAPHY K-10 CURRICULUM/SYLLABUS

Integrate geographical tools: maps, graphs, statistics, spatial technologies and visual representations

FOUNDATION	STAGE 2:	STAGE 3:	STAGE 4:	STAGE 5:
KINDERGARTEN	YEARS 3/4	YEARS 5/6	YEARS 7/8	YEARS 9/10
Investigate features of places, weather and seasons, and how places are organised. Describe features of places, and connections between people and places.	Investigate the natural and human features of Australia's neighbouring countries e.g. South Korea	Investigate the culturally diverse connected world. Explain how places, people and cultures differ across the world. Describe Australias global connections, especially the 2018 Winter Olympics in South Korea.	Landforms and landscapes: Investigate the Taebaek Mountains Place and liveability: Compare liveability of cities: Seoul, PyeongChang and Pyongyang. Water in the world: Describe how the Taebaek Mts are the source of rivers and glaciers. Interconnections: Investigate the interconnections between the 2018 Winter Olympic Games and sport, ICT, satellite TV, global media, social networks, tourism, transport, peace and the environment.	Environmental change and management: Discuss the processes that form and transform places and environments such as PyeongChang County. Human wellbeing: Measure South Korea's GDP per capita and Human Development Index (HDI). Compare indicators with North Korea. Analyse reasons for the differences.

OVERVIEW

Athletes from countries around the world competed in the 2018 Winter Olympic Games, in a procession of sportsmanship and global citizenship. The visually and physically spectacular performances from the world's top athletes, were held at PyeongChang in Gangwon Province, South Korea. The XXIII Olympic Winter Games, referred to as the Peace Games, were held between 9th and 25th February featuring 3,000 athletes from 92 countries. The participants competed in 102 events in 15 winter sports. This event was followed by the Paralympic Winter Games held between 9th and 18th March, highlighting 80 events in six winter sports, emphasising ability not disability.

LOCATIONS

PyeongChang, is a small rural town of 45,000 people in Gangwon Province. Located in the Taebaek Mountains, at an elevation of around 750masl, it was the Olympic venue for skiing, snowboarding and sliding sports, while the larger coastal city of Gangneung hosted indoor Olympic events such as figure skating, ice hockey and speed skating.

CLIMATE

PyeongChang experiences long, cold and relatively dry winters. The cold air and low humidity assists to conserve the little snow that falls. Fortunately, during the Olympic Games, sophisticated snowmaking technology was available if Mother Nature disappoints.



Somunsubong Peak on Mt. Taebaek, South Korea. Source: https://commons.wikimedia.org/wiki/File:Mt.Taebaek_Somunsubong.jpg

PyeongChang locality map showing event venues



Source: https://www.allkpop.com/forum/threads/winter-olympics-2018-impressions-closing-ceremony-180225.143106/

Table: Climate statistics of Daegwallyeong, PyeongChang County. 700-800masl

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Daily mean °C	-7.7	-5.5	-0.5	7.0	11.9	15.7	19.1	19.1	14.1	8.3	1.3	-4.4	6.6
Av precipitation mm	62.6	53.6	75.6	89.5	122.3	201.0	326.7	420.9	307.3	124.9	76.9	36.8	1,898
Av snowy days	13.0	11.8	12.0	3.3	0.2	0.0	0.0	0.0	0.0	0.8	5.2	10.9	57.2

Sources: https://en.wikipedia.org/wiki/Pyeongchang_County





CHANGING PLACES

FROM OBSCURITY TO OLYMPICS FAME

Aimed to accommodate this global event, Gangwon Province underwent physical transformations. Pinecovered hills were bulldozed to create a \$1.5 billion resort complex called Alpensia, snow-covered rice paddies were replaced by Olympic skating rinks, and high-speed trains connected tourists to the Games.

Refer to major infrastructure projects for 2018 PyeongChang Olympics https://build.export.gov/ build/groups/public/@eg_kr/documents/webcontent/ eg_kr_093169.pdf



Alpensia, Ski Jumping Stadium. Source: https://en.wikipedia.org/wiki/ Alpensia_Ski_Jumping_Stadium#/media/File:Alpensia_20170202_08_ (32537578151).jpg



Pyeongchang 2018 Olympic Stadium during the opening ceremony Source: https://en.wikipedia.org/wiki/Pyeongchang_Olympic_Stadium#/media/ $File: Pyeong chang \verb|_2018_Olympic_Stadium_during_the_opening_ceremony.jpg|$

Olympics. It's hard to 'Knock it down', but the unused stadium is estimated to cost \$10 million to maintain. Recently, cities hosting the Olympic Games have embraced the concept of 'temporary architecture'. CityLab's Linda Poon reported in 2016—'they're building sites that can be more easily dismantled or repurposed. The Olympic Village will be turned into condos, and the express train line should improve tourist access to the region from Seoul.'

The rising cost of hosting future Olympics, is a predicament facing the International Olympic Committee. Will the 'pop up'stadium in South Korea be the answer?

Adapted: https://www.citylab.com/life/2018/02/its-time-for-the-pop-upolympics/552896/

From 'Pop-Up Stadium' to oblivion

The 35,000-seat pentagonal Olympic Stadium is an example of 'pop-up architecture'. The stadium will only be used four times-opening and closing ceremonies of the 2018 Winter Games and Paralympics. Then it's scheduled to be torn down.

Its simple temporary structure and open roof was designed to be demolished. Otherwise it would probably join a herd of 'white elephants' from past



ource: https://en.wikipedia.org/wiki/Pyeongchang_Olympic_Stadium#/media/ File:Pyeongchang_Olympic_Stadium_at_day_for_2018_Winter_Paralympics_opening_

LOOKING BEYOND THE MEDALS

The 2018 Winter Olympic Games, not only focussed on sportsmanship but also peace, economics, culture, environment and high tech information and communications technology.

PEACE

Tensions between North Korea and South Korea date back to the end of World War II. Both countries claim to be the government for the entire Korean Peninsula. Recently, North Korea conducted intercontinental ballistic missile tests, sending alarm bells ringing in South Korea and the rest of the world. Most

troubling is the location of PyeongChang-64km from the Demilitarised Zone (DMZ) and only 290km from Pyongyang, the capital of North Korea.

The Olympic Games also referred to as the Peace Games focussed on Sport Diplomacy:

- a. North Korean delegations attended the Games. South Korea views Kim's visit from North Korea as a positive sign of the leader's willingness to ease tensions.
- b. North and South Koreans marched together at the opening and closing ceremonies under the 'banner of unification'. Thomas Bach, president of the IOC, stressed that it showed "the unique power of sport to unite people".

South Korea's president Moon Jae-in, declared that now the Olympic Winter Games has ended, peace will continue. We shall see!

Learn about the Olympic truce https://www.olympic.org/olympic-truce

ECONOMICS

South Korea spent \$13 billion on organising the Games, nearly double \$7 billion originally projected.

The Olympics created 230,000 jobs and generated \$20 billion in investments and consumption. Additionally, it resulted in the economic growth of Gangwon Province, and the anticipated tourist boom over the next 10 years.

CULTURE

The Cultural Olympiad is a programme of culture and entertainment, that aims to engage people around the world. The Game showcased Korean traditions and culture with vibrant opening and closing ceremonies plus events around the PyeongChang Olympic Plaza and Gangneung Olympic Park. What is meant by Han Style? What is K-pop?

ENVIRONMENT

- Games aligned with Sustainable Development Goals (SDG 2030)
- 'Carbon Responsible Games' aimed to reduce the carbon footprint
- Ensured biodiversity and ecological balance in cleared areas for Olympic infrastructure
- Six new Olympic venues received green building certification
- Recycling infrastructure across Games locations
- Staff drove electric and hydrogen-powered vehicles
- Eight venues to be used as winter sports facilities in the future. Aimed to help region become the Asian winter sports hub
- Apartments at Olympic Village sold for residential use
- However, the new ski resort required partial demolition of a sacred indigenous forest





INFORMATION AND COMMUNICATIONS TECHNOLOGY

ICT AT OLYMPIC GAMES

Revealed latest South Korean technology.

- Tested largest 5G wireless network.
- Introduced Interactive Time Slice, using 100 cameras fitted around ice arena to allow 360-degree instant replay and zooming.
- Fitted athletes in bobsleigh, ski jump and crosscountry skiing events, with GPS trackers or cameras to share location and view with audience.
- Exhibited technology including: self-driving cars, high speed video streaming, virtual reality viewing, cyber security, and automatic multilingual translation.

Presented companies' technology such as:

- Panasonic provided laser projectors revealing spectacular images of ceremonies and competitions.
- Intel developed a 1,218 Shooting Star drone light show for Opening Ceremony, and 300 drone light show that dotted the image of the Games mascot Soohorang (white tiger) in Closing Ceremony.
- Samsung's SmartSuit provided live feedback on athletes' body positions to coaches. Smartphone software analysed their racing posture, and coaches relayed suggested improvements back to competitor on a wrist band via buzz signals.

Displayed, Multi-directional Impact Protection (MIPS) helmets or Giro Advance, for downhill skiers to alleviate cranial damage from crashes.

Unveiled, Dainese airbags: Vests with seven sensors detected when a racer is losing control and about to crash. This prompted vests to inflate, and as a result reduced injuries.

Additionally, the Korail KTX or Super-fast Bullet train transported athletes and spectators to PyeongChang (Gangneung or Jeongseon), the location of the Games

ACTIVITY

Investigate the use of ICT

- 1. Inside Olympics Opening Ceremony World Record Drone Show https://www.wired.com/story/ olympics-opening-ceremony-drone-show/
- 2. Winter Olympics 2018: Top Twitter follows for Pyeongchang Games http://www.sportingnews. com/athletics/news/2018-winter-olympicstop-twitter-follows-pyeongchang-korea-nbcted-ligety-mikaela-shiffrin-lindsey-vonn-miketirico/1fjpukzmdxgiy1t2mvs7qm8wsr

NEW YORK TIMES AUGMENTED REALITY

Students can use New York Times interactives that slows down and narrates the action in the following sports:

- Figure skating (augmented reality)
- Giant slalom
- Halfpipe snowboarding
- Ice hockey (augmented reality)
- Luge
- Short-track speed skating and Short track (augmented reality)
- Ski jumping
- Snowboard slopestyle and Slopestyle (augmented

Students are required to use relevant vocabulary, such as kinetic energy, angular momentum, friction and aerodynamics.

Source: https://www.nytimes.com/ interactive/2018/02/05/sports/olympics/ar-augmentedreality-olympic-athletes-ul.html

Ice Skating



Nathan Chen is an 18-yearold American figure skater. He became the first person to land five quadruple jumps in a program (four 360-degree spins, in the air). Chen's quadruple jump takes less than a second and his rotation makes it blurred to the naked eye. Chen's body build and quick muscle reactions enables him to rotate quickly and spring off the ground easily.



Speed Skating

J.R. Celski is small for a male, and has a lean upper body and thick thighs, like most other athletes in this sport. Plastic caps on his fingertips protect them during turns

ACTIVITIES USING A VARIETY OF WEBSITES

New York Times

https://www.nytimes.com/2018/02/07/learning/ lesson-plans/teaching-the-winter-olympics-across-thecurriculum-with-help-from-the-new-york-times.html

1. CONTROVERSIAL ISSUE

Debate: In groups list your thoughts on the following topics. Follow this activity by a class discussion. Then write concluding thoughts explaining your perspective on the issue.

- Did the International Olympic Committee (IOC) make the right decision to ban Russia from competing in the 2018 Winter Olympics because of state-backed doping during the 2014 Sochi Games?
- Did the IOC make the right decision in allowing Russian athletes, who can prove they are "clean", to compete under a neutral flag?
- Did North and South Korean politicians make the right decision in deciding to field a joint women's hockey team for the sake of "sports diplomacy"? Was the decision unfair to individual players who have worked hard to get to the Olympics, yet lose playing time or are benched for some games?
- Should participating countries hesitate to send their delegations to the Games because of North Korea's recent nuclear and ICBM tests? Should visitors be reluctant to attend the Games considering the proximity to North Korea?

2. LITERACY

Sports writing: Discuss how you enable readers to understand and feel the actions in Olympic Winter sport activities? Select one sport and list the words you would use to visualise the sport's actions.

Describe a dramatic sports moment: Remove any reference to the sport. Read the event to the class and establish if they can name the Olympic event.

3. NUMERACY

List the medal count at the end of the Winter Games, and draw data as a column or pie graph using ICT. Compare Asian with European countries. Analyse the differences.

Fractions in the Olympics – http://mathforum.org/paths/fractions/olympic.fractions.html

4. GEOGRAPHY

Explain how climate, landform, infrastructure and wealth determined the location of the 2018 Winter Olympic Games.

List connections between Australia and South Korea

5. HISTORY

Discuss how the Olympic Games could ease political and nuclear tensions on the divided Korean Peninsula. Investigate the history of North and South Korea over the last 30 years and why their relations are strained. What are the current conflict issues?

What is meant by marching under one flag?

6. ECONOMICS AND BUSINESS STUDIES

Name five global designer brands worn at the Winter Olympic Games.

Investigate one major partner/supporter of the Winter Olympic Games e.g. Coca Cola, Samsung, Via, Alibaba, General Electric, McDonalds, Korean Air and Panasonic. Discuss their positive connections to the Olympic Games.



RESOURCES

EDUCATION WORLD

Winter Olympics History http://www.educationworld.com/a_lesson/02/lp250-01.shtml

Comparing ancient and modern Olympics: Venn activity http://www.educationworld.com/a_lesson/02/lp250-04. shtml

Olympic biographies http://www.educationworld.com/a_lesson/00-2/lp2140.shtml

Plan and stage Olympics – Students work together in cooperative groups to plan and stage their own Olympic Games http://www.educationworld.com/a_lesson/00-2/lp2144.shtml

Measuring greatness – Students participate in a variety of Olympic-type activities involving measurement http://www.educationworld.com/a_lesson/00-2/lp2148.shtml

HOMESCHOOL SUPER FREAK

http://homeschoolsuperfreak.com/56-free-winter-olympics-lesson-plans-activities/

56 Free Winter Olympic lessons: Plans and activities I In addition to sports, students could learn about:

- Geography of the country
- History of the country
- Culture of the country (including music, food and industry)
- Language of the country
- Fashion for the Olympics, and so much more!

CHALKBOARD: TEACH STARTER

https://www.teachstarter.com/blog/2018-winter-olympics-classroom-activities-and-resources/

- Winter sports comprehension activity
- Olympics mapping task
- Olympic medal design task
- Olympic host city inquiry research task https://www. teachstarter.com/teaching-resource/olympic-hostcity-inquiry-task-worksheet/
- Athlete profile activity PowerPoint

WINTER OLYMPIC GAMES PYEONGCHANG 2018 CURRICULUM

https://www.olympic.org/

https://www.pyeongchang2018.com/en/sustainability/news/PyeongChang-2018-Excite-Inform--Engage-through-Education-Program

An interactive educational resource that includes lesson plans, multimedia classroom materials and videos.

PINTEREST: HUNDREDS OF TEACHING IDEAS AND **ACTIVITIES**

508 best 2018 Winter Olympics for Kids images https://www.pinterest.com.au/walterbones/2018-winterolympics-for-kids/?lp=true

TEACHERS PAY TEACHERS: COUNTLESS RESOURCES

Teachers Pay Teachers website contains resources from Pre-Kindergarten to Year 12, across subjects. It also includes Videos, PowerPoints and Worksheets https://www.teacherspayteachers.com/Browse/ Search:2018%20winter%20olympics%20interactive%20 lesson%20plans

PARALYMPIC SPORTSCAST PRESENTATION

We're the Superhumans Paralympics 2016 Trailer https://www.youtube.com/watch?v=locLkk3aYlk

In small groups, students are to create a Paralympic sportscast that will include:

- accurate information using a variety of sources
- descriptive words to ensure presentation is interesting and engaging actions or demonstrations to make dialogue clearer to the audience

Students can include diagrams and photographs, and use video resources such as YouTube or video clips, from websites such as the Vancouver Olympics site, NBC or NYTimes.com. Students are to present the oral sportscast to the class, supported with ICT.



Image: https://www.skiandsnowboard.org.au/para/2018-paralympic-games/

ACTIVITIES TO CELEBRATE WINTER GAMES

Source of activities: https://www.weareteachers.com/ winter-olympic-activities/

- Host a sport game show-trivia time!
- Explore STEM through winter sports
- Celebrate countries from around the world
- Teach a lesson on the challenge of confidence and self-doubt Write and share stories of perseverance
- Conduct an Olympic Games at your school



PyeongChang Winter Olympics logo. Source: https://en.wikipedia.org/wiki/2018_ Winter_Olympics#/media/File:PyeongChang_2018_Winter_Olympics.svg

OTHER ACTIVITIES

- Design a pictogram of your favourite sport http://www2.edgate.com/summergames/lesson_ plans/efg/
- List five sports in the 2018 Winter Olympic Games.
- How many countries were involved in the 2018 Winter Olympic and Paralympic Games? Explain why Russia was suspended from the 2018 Winter Olympic Games.
- Discuss how some Russians were finally permitted to compete in the 2018 Winter Olympic Games. List the technical innovations showcased at the 2018 Winter Olympic Games.
- Explain the relationship between North Korea and South Korea before the 2018 Winter Olympic Games. Outline the compromises between North and South Korea during the 2018 Winter Olympic Games?
- Explain the term 'sports diplomacy' in relation to the 2018 Winter Olympic Games.
- Compare weather in PyeongChang with the weather you experienced during the 2018 Winter Olympic Games.
- Track the gold, silver and bronze medals at the 2018 Paralympic Games, and create a chart of the top ten countries. Convert the chart into a line, column or pie graph.
- How many medals did Australia win at 2018 Winter Olympic and Paralympic Games, and in what sports?
- List the costs and benefits of a gold medal in a twocolumn table. Summarise your thoughts on the value of a gold medal.
- Write a report from the point of view of an Olympic athlete attending the Games, and present it as an oral report to the class.

RESOURCES FOR SALE

