

Speed Skating Graphs

Grade Level(s)

4-7

Subject Area(s)

Mathematics

Links to Vancouver 2010 Education Program Component(s)

Olympism

Activity Description

Students will use the provided sample times to create a graph of the winning times for the men's and women's 500 metre speed skating races. Use this information to create two separate line graphs on the same set of axes, one axis for year and one axis for times. Once completed, describe the trends indicated by each graph. Possible questions include:

- By what percentage have men and women have improved their time by since 1924?
- What period saw the biggest improvement for men and women.
- At what point have the times for men and women been the closest and when were they farthest apart?
- Using your graph, predict the winning times for the next 2 Olympics in men's and women's speed skating.

Learning Outcomes

This project meets Mathematics learning outcomes for creating, labelling and interpreting line graphs and analyzing graphs to solve problems.

Resources Needed

Graph paper

Duration of Activity

1-2 class periods

Cognitive and Affective Domains

Cognitive – Comprehension

Affective - Responding

Assessment Strategy

Use a rating scale, such as the ones found in the BC Grade 6 Numeracy Rating Scales:

http://www.bced.gov.bc.ca/perf_stands/numerg6.pdf



Olympic Gold Medal Winning Times – 500 metre speed skating

Year	Men	Women
1924	44.0 seconds	---
1932	43.4 seconds	58.0 seconds
1952	43.2 seconds	---
1964	40.1 seconds	45.0 seconds
1976	39.17 seconds	42.76 seconds
1988	36.45 seconds	39.10 seconds
1998	35.76 seconds	38.21 seconds
2006	34.82 seconds	38.23 seconds

