LAKE PLACID OLYMPIC MUSEUM

LESSON PLAN

COMMITMENT TO CLIMATE CHANGE

This lesson will introduce students to the changes in climate in Winter Olympic host cities.

CONTEXT

As the climate warms, winter weather patterns have been changing across the world. Various changes in global climates are impacting who can host future Winter Olympic Games. In this lesson students will examine average temperatures of former Host Cities and discuss how this might impact the future of the Olympic Winter Games.

AIMS & OBJECTIVES

Students will be able to:

1. Interpret numerical temperature data.
2. Create graphs and identify trends.

MATERIALS

- Temperature Anomaly Data Sheets
- Pencils and colored markers

ADDITIONAL READING

- https://www.meteoblue.com/en/blog/article/show/39932_Winter+Olympics+2022%3A+Weather+and+Climate
- https://www.history.com/news/winter-olympics-snow-shortage
- https://www.climatecentral.org/climate-matters/winter-olympics-pyeongchang-2018
- https://www.sportecology.org/_files/ugd/a700be_9aa3ec697a39446eb11b8330aec19e30.pdf

PROCEDURES

- For a great introduction to this topic, we strongly recommend having students read through this brief study: “Slippery Slopes: How Climate Change is Threatening the Winter Olympics”. It can be downloaded from this link: https://www.sportecology.org/_files/ugd/a700be_9aa3ec697a39446eb11b8330aec19e30.pdf
- Each Temperature Anomaly Sheet corresponds with a different Winter Olympic Host City. Students may choose or be randomly assigned a city.
- Working either independently or in pairs, have students examine the numerical data from the National Oceanic and Atmospheric Administration. Using the “Changing Temperatures” worksheet, they can select their data points.
- Using the provided graph sheet OR their own graphing paper, students will create a bar graph representing temperature anomalies.
- Encourage discussion and reflection on their results by using the questions listed on the “Trend Analysis and Predictions” worksheet.

WINTER OLYMPICS CITY REFERENCE SHEET

Year	Host City
1924	Chamonix, France
1928	St. Moritz, Switzerland
1932	Lake Placid, New York, USA
1936	Garmisch-Partenkirchen, Germany
1948	St. Moritz, Switzerland
1960	Palisades Tahoe, California, USA
1976	Innsbruck, Austria
1980	Lake Placid, New York, USA
1994	Lillehammer, Norway
2002	Salt Lake City, Utah, USA
2014	Sochi, Russia
2018	Pyeongchange, South Korea
2022	Beijing, China
2026	Milano-Cortina, Italy

Changing Temperatures

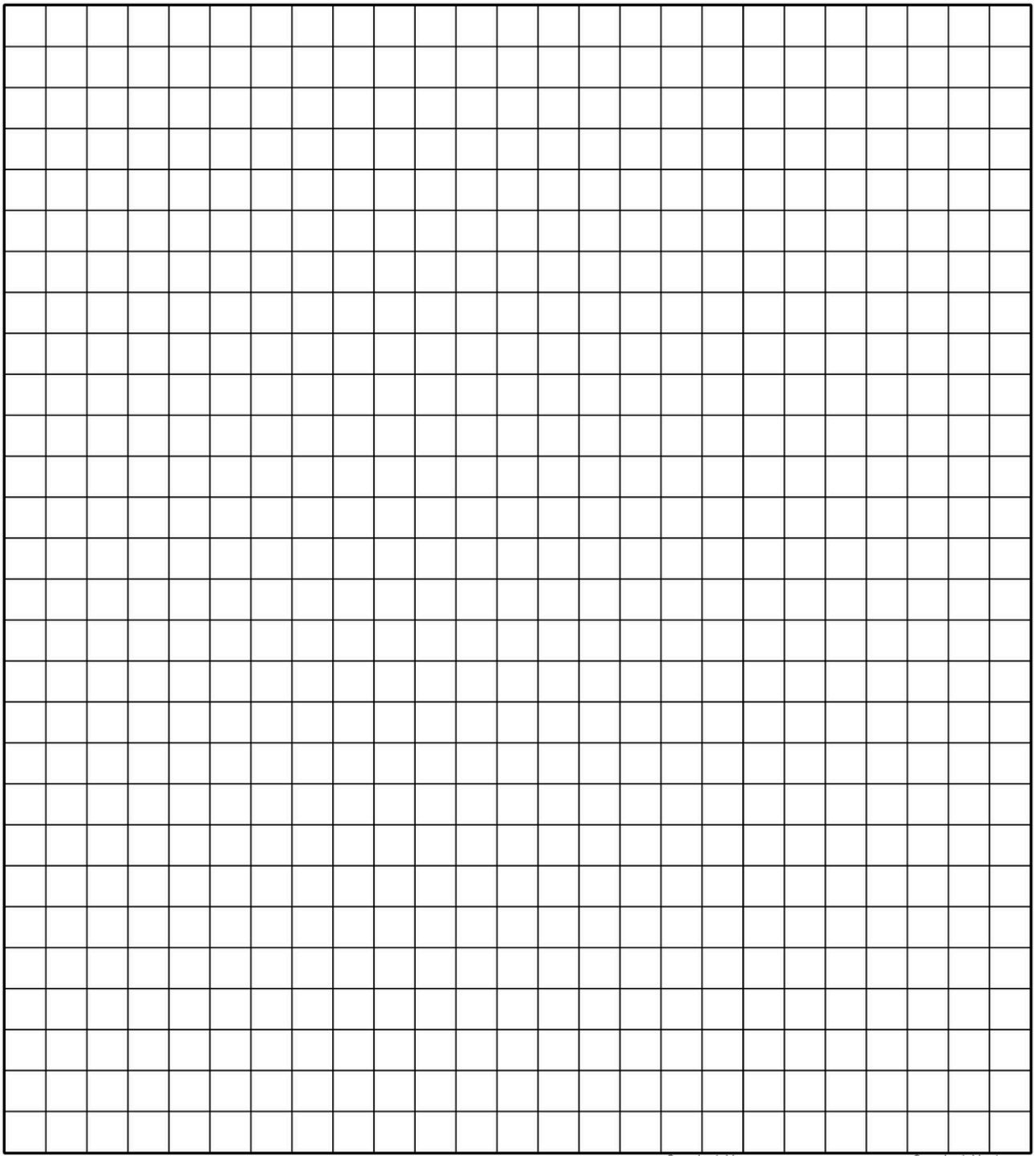
List the temperature anomalies from your host city. If you're using the provided graph sheet, there will only be space for around 24 data points. Using the Winter Olympics City Reference sheet, you can note down each year that the Winter Olympics have happened in history. Highlight those years and look them up on your city's data sheet to end up with enough points to create the graph.

Year	Anomaly	Year	Anomaly

Graphing Olympic Temperatures

Select your city and create a graph plotting the mean February temperature from the year your city hosted the Olympics to today. Remember to label your graph!

Title: _____



y-axis:

x-axis:

TREND ANALYSIS AND PREDICTIONS

1. Are there any trends found in the data? Explain:

2. Consider your observations on trends found in the data. Do you think your city would be able to host the Olympic Winter Games again in 2026? What about 10 or 20 years from now? Explain:

2. Think: what might this mean for the Winter Olympics as a whole? What are some ways the Olympic Winter Games can be used to make an impact on global climate change? Can you do any of those things in your own community?

EXTENSION ACTIVITY

Have students select from a list of climate solutions to research more in-depth and learn about what other people their age are doing. They can research their solution, and write up in a worksheet a plan for how they could apply that solution in their own lives, homes, schools, or communities.