

Lesson Summary:

Globes, which are models of Earth, can be useful in learning about the aurora. Many of the lines on a globe represent concepts important to understanding the aurora and the history of aurora research. The aurora forms ovals around Earth's magnetic poles. Usually these ovals are located at high latitudes. During this lesson, students learn the significance of the many lines drawn on globes (including latitude and longitude lines).

Objectives:

The student will:

- differentiate between latitude and longitude;
- find places on a map using latitude and longitude; and
- locate, label and understand the significance of the Equator, Prime Meridian, International Date Line, Arctic Circle, Antarctic Circle, Tropic of Cancer, and Tropic of Capricorn.

GLEs Addressed:

Math

- [7] F&R-2 The student demonstrates conceptual understanding of functions, patterns, or sequences including those represented in real-world situations by generalizing relationships (linear) using a table of ordered pairs, a function, or an equation (M4.3.4).
- [8] F&R-2 The student demonstrates conceptual understanding of functions, patterns, or sequences including those represented in real-world situations by generalizing relationships (linear) using a table of ordered pairs, a graph, or an equation (M4.3.4).
- [5] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as social studies, friends, and school (M10.2.1 & M10.2.2).
- [6] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as social studies, friends, school and community (M10.2.1, M10.2.2, & M10.3.2).
- [7] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as science, humanities, peers, and community (M10.3.1 & M10.3.2).
- [8] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as science, humanities, peers, community, and careers (M10.3.1 & M10.4.2).

Search Terms:

- globe
- Earth
- latitude
- longitude
- Equator
- Prime Meridian
- International Date Line
- Arctic Circle
- Antarctic Circle
- Tropic of Cancer
- Tropic of Capricorn
- geography
- mathematics
- aurora
- Northern Lights

