

# DRAW A CROSS-SECTION OF EARTH'S ATMOSPHERE

## Lesson Summary:

Students graph data as a means to visualize the locations of atmospheric layers, items in the atmosphere (e.g., satellites, clouds, Mt. Everest), and auroral layers.

## Objectives:

The student will:

- hypothesize the distance from the summit of Mt. Everest to magenta auroras;
- graph atmospheric layers, items in the atmosphere, and auroral layers; and
- compare locations of atmospheric layers, items in the atmosphere, and auroral layers.

## GLEs Addressed:

Science

- [5-8] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- [9] SD3.2 The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by explaining the phenomena of the aurora.

Math

- [8] S&P-1 The student demonstrates an ability to classify and organize data by [designing, collecting L], organizing, displaying, or explaining the classification of data in real-world problems (e.g., science or humanities, peers or community), using histograms, scatter plots, or box and whisker plots with appropriate scale [or with technology L] (M6.3.1).
- [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:

- Earth's atmosphere
- modeling
- troposphere
- stratosphere
- mesosphere
- thermosphere
- ionosphere
- aurora
- Northern Lights