FICTITIOUS PLANETS

OVERVIEW

Lesson Summary:

A planet can have an aurora oval that is always glowing if it meets three conditions: (1) it collides with particles from the solar wind; (2) it has a thick atmosphere of gases, and (3) it has a strong magnetic field. These characteristics can be used to predict the existence of the aurora on planets other than Earth. In this activity, students examine features of fictitious planets to determine if each planet could have an aurora.

Objectives:

The student will:

- identify characteristics necessary for an aurora to occur;
- predict the occurrence of auroras based on information presented about fictitious planets; and
- provide reasons for the predictions they make.

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.

Search Terms:

- solar wind
- atmosphere
- gases
- magnetic field
- aurora
- Northern Lights