

GALVANOMETERS

Lesson Summary:

Students learn about galvanometers, an instrument used to measure electricity created by a change in a magnetic field. Electric current generated by changes in the magnetic field created by the aurora can cause destructive corrosion to metal objects such as the trans-Alaska pipeline.

Objectives:

The student will:

- observe that a galvanometer measures electricity;
- discover that a change in magnetic field generates electricity; and
- conclude the amount of electricity a magnet and electric coil can generate depends on the amount of wire in the coil and the strength of the magnet.

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.

[7] SB4.2 The student demonstrates an understanding of motions, forces, their characteristics, relationships, and effects by recognizing that electric currents and magnets can exert a force on each other.

Search Terms:

- galvanometer
- cow magnet
- electricity
- magnetic field
- corrosion
- aurora
- Northern Lights