

PLASMA PROPERTY

Lesson Summary:

Students replicate a model that demonstrates an important property of plasma: its ability to be affected by a magnetic force.

Objectives:

The student will:

- create a scientific model of plasma's behavior when impacted by the magnetic force of Earth;
- compare a scientific model to the aurora phenomenon; and
- conclude that a property of plasma is its ability to be influenced by a magnetic force.

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.
- [5] SB1.1 The student demonstrates an understanding of the structure and properties of matter by comparing models that represent matter as solids, liquids, or gases and the changes from one state to another.
- [6] SB1.1 The student demonstrates an understanding of the structure and properties of matter by using models to represent matter as it changes from one state to another.
- [9] SB1.1 The student demonstrates an understanding of the structure and properties of matter by describing atoms and their base components (i.e., protons, neutrons, electrons).
- [7] SB3.1 The student demonstrates an understanding of the interactions between matter and energy and the effects of these interactions on systems by recognizing that most substances can exist as a solid, liquid, or gas depending on the motion of their particles.
- [8] SB3.1 The student demonstrates an understanding of the interactions between matter and energy and the effects of these interactions on systems by exploring changes of state with increase or decrease of particle speed associated with heat transfer.

Search Terms:

- scientific models
- plasma
- magnetic force
- atoms
- ions
- protons
- neutrons
- electrons
- positive charge
- negative charge
- aurora
- Northern Lights