

# MATTER: IN FOUR ACTS

## Lesson Summary:

By comparing structure and movement of substances within the four states of matter, students gain an understanding of the unique composition of plasma.

## Objectives:

The student will differentiate states of matter by replicating and examining the structure and movement of molecules, atoms, and sub-atomic particles.

## 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:

- matter
- plasma
- solid
- liquid
- gas
- molecules
- atoms
- electrons
- protons
- neutrons
- drawing
- aurora
- Northern Lights