

## Implementing Common Core Standards

### 8. P.1

Understand the properties of matter and changes that occur when matter interacts in an open and closed container.

8. P.1.1 Classify matter as elements, compounds, or mixtures based on how the atoms are packed together in arrangements. Using discussion, notes and the activity Separation Challenge this should be covered well in this unit. Students must understand these basics for the rest of chemistry.

8. P.1.3 Compare physical changes such as size, shape and state to chemical changes that are the result of a chemical reaction to include changes in temperature, color, formation of a gas or precipitate. Students need to realize there is a difference between physical and chemical characteristics and changes. Kuzniar's Don't Show and Don't Tell exercise is a fun way to start this process, followed by the rest of the unit; students will understand and be able to use these principles.

8. P.1.4 Explain how the idea of atoms and a balanced chemical equation support the law of conservation of mass. 8<sup>th</sup> grade chemistry is all about the law of conservation of matter. Everything from properties, characteristics and reactions is all planned to gain understanding of this essential Law.