



Chemistry: Teacher Tips & Helpful Hints

N.C.S.S: 8.P.1 Understand the properties of matter and changes that occur when matter interacts in an open and closed container.

- The activity is broken up into two different parts:
 - **Part 1: Chemical Change** (8.P.1.3)
 - **Part 2: Reaction Rates** (8.P.1.3)

Part 1: Chemical Change

- Students will need water, vegetable oil, clear soda, and vinegar.
- Students should rinse out the graduated medicine cup between liquids.
- The chemical reactions can take a couple of days to be seen.
- Vegetable oil and steel wool does not create a chemical change.
- There is a *Chemical Change: Student Activity Sheet* available.

Part 2: Reaction Rates

- Part 1: Exploration can be used as a comparison to the steel wool activity to show different reaction rates of different substances.
- This focuses on reaction rates being changed by temperature. This can be used in conjunction with the concept that as energy is added to a substance the atoms or molecules move faster.
- There is a *Reaction Rates: Student Activity Sheet* available.

N.C.S.S Clarifying Objectives

- 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, the formation of a gas or precipitate.