Dr. Chris Smith (UTPA) and Dr. John Villarreal (UTPA) and Teacher Team

Work shop activities description

Molecular models

In this activity students will use chemistry molecular kits to help them learn about bonding capacity, molecular shape, reactivity, multiple bonding, and chemical reactions.

How Big Is the Balloon?

Stoichiometry using baking soda and vinegar. Through this activity students discover the concept of stoichiometry and limiting reactants in two ways: first by adding vinegar to a small quantity of baking soda until bubble stop and second by mixing a constant quantity of baking soda with increasing volumes of vinegar and collecting the carbon dioxide produced in balloons.

Reaction Between Sodium Hydroxide and Cupric Sulfate

In this lab students will practice balancing chemical equations and making solutions. Students will also explore the differences between dilutions and reactions in aqueous solution.

Stoichiometric Relationships in a Chemical Reaction

Students will determine experimentally the percent by mass of sodium bicarbonate contained in Alka Seltzer tablets. Students will also explore the idea of limiting reactants.