

Topic: Chemical Reaction  
Teacher: Katrice Antoine  
Intended Audience: 9<sup>th</sup> grade students  
Subject: Physical Science  
GLE's: PS-H-D1, PS-H-D5, PS-H-D7

#### Summary:

Per the Louisiana Comprehensive Curriculum, the topic of Chemical Reaction must be taught in preparation of the iLeap Standardized test in March 2008. The students should have been introduced to the topic in 6<sup>th</sup> grade Physical Science Class. In order to gauge their prior knowledge a pre-test will be administered to my 1<sup>st</sup>, 2<sup>nd</sup>, 6<sup>th</sup>, and 7<sup>th</sup> period Physical Science students. Throughout this unit the students will engage in teacher-directed/lead and student-centered activities. At the end of this unit the students will be tested to determine if they have gained more knowledge on the topic Chemical Reaction. The data will be analyzed to determine each student's gain.

#### Teacher/Directed Activities

- a. Inspiration Brainstorming Web  
    "What I Know About Chemical Reaction"
- b. Mini Lecture/Class Discussion (Chemical Reaction)

Review the three states of matter with the students - solid, liquid, and gas. Next, discuss the concept of **physical change**, and have students develop a list of possible physical changes to an object. Then explain that you are going to demonstrate another type of change.

"Changes go on about you all the time. Some changes are chemical changes, such as gasoline burning or a nail rusting. But what is happening when a chemical change occurs? What is the nature of a chemical reaction?"

Chemical Reaction Animation: Click video and slide shows at the following web site

[http://www.knbc.com/news/9454556/detail.html?treets=la&tml=la\\_12pm&ts=T&tmi=la\\_12pm\\_1\\_02000206302006](http://www.knbc.com/news/9454556/detail.html?treets=la&tml=la_12pm&ts=T&tmi=la_12pm_1_02000206302006)

#### A, B, C... **ACID, BASE, CHEMICAL REACTION!**

Blow up a balloon a few times to stretch it (you may want to do this beforehand so you don't confuse the issue). Show the students the baking soda and ask them if it is a solid, liquid, or gas. Use the funnel to put the baking soda inside the balloon.

Show the vinegar to the students and ask them what state it is in - solid, liquid, or gas? Pour the vinegar into the bottle.