

## Introduction

This project was designed for North Central College EDN 501 “Authentic Assessment” during summer term 2003. It is intended for use in a high school Introductory Chemistry class however, it could easily be modified to other grade levels as well. It is intended to supplement the curriculum to address the important issues of scientific literacy and the use of the scientific method as a problem solving strategy. Students will increase their ability to solve problems using the scientific method as well as use their scientific literacy to recognize and interpret the use of the scientific method through reading a variety of articles. Since the vision of a community of scientists or even any colleagues working together to solve problems is as realistic as students having to work together to solve problems, this project will also focus on some of the necessary social skills students will need in order to work together.

### TASKS (See Table of Contents)

<b>CONTENT STANDARDS</b> <b>Students will be able to...</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
Identify the scientific principles involved in a variety of reading passages	✓	✓	✓	✓	✓							
Determine the perspective of the author in a scientific reading passage.		✓	✓	✓	✓							
Identify the variables in a scientific reading passage.			✓	✓	✓							
Determine the conclusion in a scientific reading passage.				✓	✓							
Identify and evaluate support for the conclusion in a scientific reading passage.					✓							
Write effectively on scientific issues.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Design a good experiment to solve a problem.								✓	✓	✓	✓	
Identify control, dependent, and independent variables.							✓	✓	✓	✓		
Collect data.							✓	✓	✓	✓	✓	
Analyze data.							✓	✓	✓	✓	✓	✓
Draw conclusions from data.							✓	✓	✓	✓	✓	✓
Effectively communicate experimental results in a written format.							✓	✓	✓	✓	✓	✓
<b>PROCESS STANDARDS</b> <b>Students will be able to...</b>												
Effectively share ideas and opinions.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Effectively ask peers for justification of their ideas.	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Effectively criticize ideas, not people.	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓

