

Understanding Controls

In the third quarter, students will work together in pairs on lab assignments with appropriate lab sheets to fill out for each lab. By the end of the lab the student will be able to identify the control group, controlled experiment, dependent variable and the independent variable. Students will be given handouts to help them follow the scientific process and will be able to also complete these assignments through an online form. This will help students meet the unit objectives regarding controls as part of the Montgomery County Public School’s chemistry curriculum to meet the MSDE Standards and goals. Students will also write one paragraph summaries of how scientific studies were administered in the mainstream scientific community. This will enable students to development important ‘reading to perform a task’ skills that necessary for proper scientific investigation as well as meeting the MCPS curriculum in accordance with the MDSE standards. Students will also utilize graphic organizers in this pursuit and will discuss their results with the class.

Modifications/Assistive Technology Devices for Anna

- Anna will be assigned a buddy who:
 - Is an acquaintance of Anna’s and speaks Spanish
 - Will assist Anna with her homework composition and will translate certain parts of quiz questions she does not understand into Spanish.
 - Will also assist with the composition of short write-ups on mainstream scientific studies from the scientific journals.
- Anna will be given the graphic organizers on the classroom computer
 - to help her summarize information
 - use the online Translator/Dictionary
 - after she completes the graphic organizer she will be given the key in English and Spanish so that she can check her work
- Anna will be given copies of all handouts in Spanish.
- Anna will complete projects in advance and buddy will review for English incongruencies.

Individual Goals for Anna

- By March 2005, Anna will have her class average up at least ten percentage points and by April 2005 when the quarter ends, Anna will have increased her grade by twenty percentage points. These improvements will enable Anna to be better prepared for the final examination. Although a ‘D’ is technically passing, we expect Anna to finish with a minimum of a C in the course.

<u>Component</u>	<u>Examples</u>
I. Engagement: Activities that capture student, attention, stimulate their thinking and help them to access prior knowledge.	<ul style="list-style-type: none"> • Teacher will use multimedia tools to show students chemistry creations and history. • Students will be expected to do individual reports on elements, controls, and other unit objectives. Anna will have a Spanish-speaking peer to assist her.
II. Exploration: Students are given time to think, plan, investigate, and organize	<ul style="list-style-type: none"> • With their lab partners, students will organize their ‘read to perform

collected information	<p>a task' summaries with graphic organizers and also similarly present them through this fashion.</p> <ul style="list-style-type: none"> • Anna will use the computer to complete a partially filled in on-line graphic organizer • Anna will also have language-modified assistance on computer and technical applications.
<p>III. Explanation: Students are involved in an analysis of information gained through exploration. Their understanding is clarified and modified because of reflective activities</p>	<ul style="list-style-type: none"> • Students will discuss with the class their findings from the scientific studies they must summarize. • Students will engage in post-lab discussion of the scientific process as it applied to the lab.
<p>IV. Extension: Students expand and solidify their understanding of the concept and/or apply it to a real world situation</p>	<ul style="list-style-type: none"> • Students will take a quiz on the key terms, theories, and applications of the chemistry related exercises for a given unit and lab. • Anna's quizzes will have the questions in both English and Spanish.
<p>V. Evaluation</p>	<ul style="list-style-type: none"> • Montgomery County Public School Chemistry Final Examination