

Learning CTR Online is a college preparatory school venue and Chemistry is and has traditionally been one of the most challenging courses in high school. Instruction utilizes many teaching styles and adapts to many student learning styles. However, specific emphasis is placed on “Inquiry-based Instruction” as much as possible, meaning that students are given the opportunity to think for themselves, to take ownership in their learning by using critical thinking skills, and to attempt to figure things out at least a little bit before “answers are given.”

Inquiry is a challenging pedagogy for teachers and students because it incorporates growth over time, meaning that outward results may be delayed until students “buy into” their own learning and think for themselves. Practically speaking, students who are accustomed to memorization and reproducing what the teacher models can expect 5-10% retention of concepts learned as compared to Inquiry-based instruction, which goes beyond the basic comprehension and application skills, providing 30 to 70% retention. However, one needs to expect a period of growth before one begins to see the outward results. The greatest asset of Inquiry-based instruction is that it reaches across curricular boundaries and its application extends to all disciplines.

A separate document, “Best Practice Instruction” (*Course Resources*) is available, providing standards and expectations that are used to teach and grade students. Best practice instruction incorporates “Depth of Knowledge” and higher-level thinking (also known as critical thinking) in order to provide effective pedagogy.

## **GENERAL EXPECTATIONS**

Learningctronline.com is the avenue of directions, assignments, and assessments. Students should continually refer to the website for detailed instructions, guidelines, and rubrics. Class assignments are expected to be completed by the due date provided. Please refer to the “Late Policy” / Extension Request document (*Course Resources*) should extenuating circumstances arise.

The major component of a student’s grade is based on:

- 1) tests (50%)
- 2) lab work (30%)
- 3) homework (10%)
- 4) participation (5%)
- 5) semester exam (5%).

Test guidelines and grading are discussed on the next page.

Labs are applications of content and are graded in three ways: 1) student polls, 2) lab quizzes, and 3) formal lab reports. See guidelines and grading of formal lab reports below.

Homework is designed for students to practice content and to monitor themselves. Many optional and supplementary resources are provided as well (*practice tests, alternative assignments, lab revision*) which can all be found on the website.

Participation includes reading the text, reflection and mastery after taking tests, attendance, class involvement, and asking questions.

## GRADING RUBRIC FOR TESTS

All tests must be proctored by a guardian as per Learning CTR guidelines. All tests are assigned a time limit for students to practice for standardized and college tests. 5-10% will be deducted for going over the allotted time unless a student has an approved accommodation.

### Multiple Choice (Objective) Portion

- Quizzes & Tests usually include multiple choice questions with objective answers.

### Written (Subjective) Portion

- Deductions are made categorically as shown below and specific point deductions are given in teacher feedback.
- Grading is done with the learning process in view, accounting for step by step growth.
- Chemistry is cumulative in nature, meaning that the skills learned initially accumulate to provide the foundation for future concepts.
- Students rarely receive a score below 60% on a test unless the student does not follow directions or complete the assessment. In such cases, students will be asked to redo.

#### **FOLLOW DIRECTIONS** (5-10% deductions)

- Deductions occur when directives are not followed. Some directives are given verbally during class sessions, but the vast majority are documented in writing.
- For instance, “Do not use Red Font” will yield a 1-point deduction (5% of test score) ... students are given verbal and written instruction not to use red font. (*Red font is used to give teacher comments and corrections.*)
- Students must show organized, labelled work for all aspects of an answer. This includes equations/formulas, plugging in measurements (with units), and solving for the final answer.

#### **TEACHER COMMENT POINT DEDUCTIONS** (2.5-20% deductions)

- Each teacher comment provided results in a 2.5-5% deduction. (That is 0.5 - 1 pt. / 20 on the overall test).
- Brief comments imply that the student’s answer was partially to mostly correct and only a brief comment(s) is necessary.
- Full paragraph comments (or sample answers) are supplied when the student’s answer is NOT clear or not accurate. The teacher comment is intended to help students understand the concepts tested, and to model a quality answer.

#### **EXPLAINING ONE’S ANSWERS** (10-20% deductions)

For essay type questions, students must prove that they fully understand the concepts being tested. This means that they should utilize the proper terminology as laid out in the objectives for each unit and should clearly demonstrate their comprehension of the tested concept(s).

- Equations/formulas and calculations must be shown if applicable. Students need to show actual computations that would indicate that they understand the concept AND the process.
- Students must fully explain their answers. Writing a word or phrase with no explanation will result in point deductions.
- Student must be sure to answer and explain what the question is asking for. All concepts assessed are part of the objectives and topics and are emphasized in the class notes, and textbook.

#### **UNITS** (5% deductions)

- Students must provide units for all measurements in their answers.
- Science uses measurements to support observations, inferences, theories, and laws. A number without units is NOT a measurement.
- A 5% deduction occurs for not having units EACH time.

#### **SHOWING WORK** (5-25% deduction on the test)

Written tests are formative assessments of student knowledge and understanding of the concepts as guided by the objectives. The instructions clearly state that students **MUST SHOW ALL WORK**.

- **Equations / Formulas** are mandatory for any computation.
  - A general formula (without values or information given from the question) should be written first. An equation sheet is provided for student use.
  - Students must then “plug in” numbers into the equation / formula.
  - The final answer should be highlighted or underlined for clarity.
- 100% deduction → If no work is shown and the answer provided is incorrect.
- 50-60% deduction → If the answer is correct, but no work is shown. (*A “stand-alone” correct answer does NOT prove comprehension.*)

#### **BONUS**

Assessments usually include the opportunity to gain back up to 20% of the test score.

- Bonus points are at the teacher’s discretion as described previously.
- 0.5 to 1 point (2.5 - 5%) is awarded for any answer that is "in the ball park" (effort grade) to help a student's grade.
- Teacher comments are usually supplied for bonus questions to present a "more accurate or clear" presentation of the concept tested.

## Semester Exams

- A cumulative exam is given at the end of each semester which includes all the content covered that semester.
- A review study guide is provided prior to the exam.
- All questions are multiple choice and the test has a time limit (90 minutes).

## GRADING FORMAL LAB REPORTS

### LAB RUBRIC

- A standardized lab rubric is used to indicate point totals in various categories of a formal lab report. Comments are inserted into the student's lab report document for feedback.
- The lab rubric is posted in the course resources which delineates the deductions.

### FOLLOWING DIRECTIONS

- Students are given 9 days to complete a formal lab report. Teachers spend time in 2 different class sessions to go over important details/reminders. There is little reason for a lab to be late or done improperly.
- Not following instructions or the prescribed format will always result in point deductions because ample time was spent in class going over expectations and providing documentation.
- A lab worksheet is always provided for student use, containing the majority of the required formatting items.
- The lab format is not negotiable and the details of each section are clearly laid out. There is a reason for everything that is prescribed and it leads to college lab reports. Students will be required to do lab reports in college science classes. Students will know what to expect and how to complete them.

Students must learn to use what is provided BUT assimilate it so that it becomes theirs. In other words, they need to write in their own words, but still give credit to the source. Technical, scientific writing, is NOT an easy thing to learn ... but fosters growth in this area.

### UTILIZE COURSE RESOURCES AND DOCUMENTS PROVIDED

- General comments are made on all labs and tests, but it is sometimes not feasible to make such detailed comments for each student within their lab report itself.
- Go to the objectives, go to the class notes, go to the textbook and see what you missed or were not clear about.
- A Sample lab is always posted AFTER each formal lab is graded.

### FOLLOW UP / REVISIONS

- Time is spent in class to go over all the general comments on labs and tests in the class AFTER all lab assessments are graded.
- A Sample lab report is posted in the Course Resources. All teacher feedback is fully explained.

Students are also given opportunity to revise their formal lab reports for points. The goal is relearning, reflection, and mastery.

Please understand that learning is a process that takes time and growth. Also understand that the teacher is before the Lord for students' best interest. None are perfect and all of us make mistakes ... so please inform the teacher of mistakes or misunderstandings, but please do it graciously.