

Learning CTR Online is a college preparatory school and Physical Science is an outstanding preparation for high school science classes. We utilize many teaching styles and adapt to many student learning styles. However, we emphasize “Inquiry-based Instruction” as much as possible, meaning that we constantly provide students 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 we “give them the answers.”

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.

## GENERAL EXPECTATIONS

The **learningctronline.com course site** is the avenue of directions, assignments, and assessments. Students should continually refer to the course site for detailed instructions, guidelines, and rubrics. A weekly overview document is provided with this information.

Class assignments are expected to be completed by the due date given. In general, assignments are due before the next week’s class session. Please refer to the “Late Policy” / Extension Request document (*Course Resources folder*) should extenuating circumstances arise.

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

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

Test guidelines and grading are discussed on the next page.

Labs are graded in three ways: 1) student honesty or email submission, 2) lab quizzes, and 3) formal lab reports. The guidelines and grading of formal lab reports are discussed after tests.

Participation involves attendance and class involvement to read content, solve problems and participate in discussions. Asking questions and volunteering is a good form of participation.

- Participation will be assessed after each class session. Students who are absent must make up that day’s participation grade by doing an alternative assignment.

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

## GRADING RUBRIC FOR TESTS

All tests must be proctored by a guardian as per Learning CTR Online policy (<https://www.learningctronline.com/test-proctor-policy>). All tests are assigned a time limit (*shown in the weekly overview*) for students to practice for standardized and college tests. Parents should administer tests accordingly and keep track of time unless a student has an approved accommodation.

## Test Format

- Tests usually consist of two portions — 1) multiple choice and 2) written problems. Scores are based on the number of questions (~20 multiple choice questions = 20 points).

## Written Problems

- 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.
- Science 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 (found on *weekly overview and class notes*) 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 (*found on weekly overview and class notes*) 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 10-20% 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.

## GRADING FORMAL LAB REPORTS

### LAB RUBRIC

- A standardized Learning CTR Online 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 on the course site (Resources) which delineates the deductions.

### FOLLOWING DIRECTIONS

- Students are normally given 9-16 days to complete a formal lab report. Teachers spend time in 2-3 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.

### FEEDBACK ON ASSESSMENTS

- General comments and/or feedback are provided on all labs and tests. Sometimes, it is not feasible to make such detailed comments for each student within their lab report itself.
- A Sample lab is always provided 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 recitation class AFTER all lab assessments are graded.
- A Sample lab report is provided. All teacher feedback is fully explained.

Students are also given opportunity to revise all formal lab report for points. The goal is learning, 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 of us are perfect and all of us make mistakes ... so please inform the teacher of mistakes or misunderstandings, and please do it graciously.