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**See** [**https://www.learningctronline.com/courses**](https://www.learningctronline.com/courses) **for Materials and Resources.**

**Topics:**

1. Scientific Measurement

**Objectives:**

1. Use the Metric System versus the English System
2. Write numbers & do calculations in scientific notation.
3. Evaluate Accuracy & Precision in Measurements (significant figures)
4. Calculate Percent Error as a Measure of Precision

TAKE NOTE

1. Notes/Study Guide (2 weeks)
2. Homework from Text or Alternative Worksheets (2 weeks)
3. Lab Quiz: Accuracy & Precision
4. Test Corrections Matter
5. Week 4 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapter 3: Measurement pp. 60 – 83

Read the assigned pages in the text.

**Class Notes: PowerPoint or PDF**

**Notes/Study Guide:** Fill in the Chapter 3 worksheet to understand the class notes.

**Homework**:

(1) Answer the KEYED **"Lesson Check"** questions at the end of each.

(2) Answer the **"Sample problems"** found in the "Sample Problem" boxes throughout the chapter. An answer KEY is provided for you to use to self-correct your homework problems.

* Put your answers into complete thoughts in a Word document. Do NOT just put the answer, but write a phrase or sentence that you can study from for your tests. Save your work in a WORD document and SAVE into your HOMEWORK folder in the Chemistry folder on the desktop.
* Assignments will be “spot checked” during class or submitted via email.

**Alternate Homework**:

1. Scientific Notation Practice
2. Factor Labelling Practice
3. Significant Figures Practice

**Lab**: Activities on Measurement

There are TWO lab activities this week: 1) Metric Progression, and 2) Accuracy & Precision

* Students should download the Lab documents and perform the labs as directed, recording all required data and information. There is NO formal lab report for these activities.
* Complete all calculations and data, showing work whenever appropriate.
* Conclusions should be answered in complete sentences that convey a complete thought. One question asks you to compare results with a classmate. That is best, if possible. However, if not possible, compare to the answer key.
* Sample answers are provided at the end of the lab documents as a guide for student learning. HOWEVER, students should NOT copy and paste, but obtain and use their own measurements and write answers in their own words.
* Save the documents into your LAB folder in the Chemistry folder on your desktop.
* When ready, take the Lab Quiz.
* You may **NOT** use the worksheets on this lab.

**TEST:** The test will be given after next week’s lesson.

Supplemental Resources (Optional)

1. Supplement Accuracy & Precision

[Measurement Overview: Metric System, Factor Labeling, Scientific Notation & Uncertainty ctr](http://somup.com/cFQbqeVWXQ) (2:55)

[Measurement: Metric System Versus English](http://prezi.com/zc-alvezwvy9/metric-versus-english-measurement/) ... prezi

[Metric Units Song](http://somup.com/cF6hIanVSb) (2:51) ... metric units for each category of measurement (m, l, g)

[Metric Progression Song](http://somup.com/cFjtqBV9bc) (1:08) ... learn the metric units

[Metric Progression & Factor Labeling Basics](http://somup.com/cFQj2UVR9h) (4:13)

[Factor Labeling "Thumbs Up / Thumbs Down" Rule](http://somup.com/cFQjoQVR9b) (4:10)

[Factor Labeling Example (negative exponents)](http://somup.com/cFQ6lpVShM) (3:34)

[Scientific Notation Overview](http://somup.com/cFQjbdVRRi) (3:31)

[Scientific Notation: Adding/Subtracting](http://somup.com/cFQjFhVRRX) (1:22)

[Scientific Notation: Multiplying/Dividing](http://somup.com/cFQjFoVRR2) (0:58)

[Significant Figures: Precision Part 1](http://somup.com/cFQjrRVRSV) (3:28)

[Significant Figures: Precision Part 2](http://somup.com/cFQj0cVRS6) (6:24)

[Obey Your Parents Ephesians 6:1-2; Pierce My Ear](http://somup.com/cYhlYZjqAx) (3:52)