NAME: **HONORS CHEMISTRY**

SECTION: UNIT 1 ASSIGNMENT SHEET

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| **Assignment** | **Due Date** |
| 1. §Student and parent/guardian sign **both sides** of safety contract and course syllabus—return signature page (last sheet) to Dr V 2. Writing Assignment: How I Used Chemistry Over the Summer (15 sentence minimum) | Thursday, 8/30 |
| 1. \*Complete Google Classroom assignment [Reviewing Course Policies](https://docs.google.com/a/psharvard.org/forms/d/1d-X2gLOOP-TbXEVhC5n9JyM7jY32918VQn0uu0zc4_I/viewform) | Friday, 8/31 |
| 1. §Complete p. 48 #1-7 (scientific notation review) 2. §Handout: Measurements Practice | Tuesday, 9/4 |
| 1. Finish lab handout 2. Learn the SI prefixes—1 column on pair tutoring sheet | Wednesday, 9/5 |
| 1. \*Go to the Online HW site <http://chemistry2.csudh.edu/homework/hwintro.html> Complete 20 problems of #1 (significant figures); upload a screenshot in Classroom 2. §Listen to the [Accuracy and Precision](http://drvanderveen.com/H%20Accuracy%20and%20Precision%202013.mp4) webcast; take notes | Thursday, 9/6 |
| 1. Learn the SI prefixes—1 column on pair tutoring sheet 2. §Read pp. 61-65 (Sections 3.3-3.4) and take notes | Friday, 9/7 |
| 1. Learn the SI prefixes—1 column on pair tutoring sheet 2. §Complete pp. 50-53 #31, 47, 79-82, 89, 91, 97, 99 | Monday, 9/10 |
| 1. Learn the SI prefixes—1 column on pair tutoring sheet 2. §Complete the Index of Learning Styles Questionnaire at <https://www.webtools.ncsu.edu/learningstyles/> Print out 2 copies—hand one in*…Print out the strategies page and keep it in your binder* 3. *Work on the lab report* | Tuesday, 9/11 |
| 1. Study the SI prefixes 2. Work on individual formal report for the *Measurement* lab | Wednesday, 9/12 |
| 1. Complete pp. 52-53 #73, 74, 106 2. Work on individual formal report for the *Measurement* lab | Thursday, 9/13 |
| 1. Complete the lab apparatus practice at <http://www.sciencegeek.net/Chemistry/Quizzes/Equipment/> 2. Complete individual formal report for the *Measurement* lab | Friday, 9/14 |
| 1. §Complete unit 1 review sheet | Monday, 9/17 |
| 1. Study for unit 1 test | Tuesday, 9/18 |
| 1. Learn the names and symbols for elements 1-10 (1 column) 2. Work on the History of Atomic Theory Webquest… | Wednesday, 9/19 |

# Dates to Remember: \*will be checked for completion online §may be collected or checked in class

* Individual formal lab report for the *Measurement* lab due Friday, 9/14
* Unit 1 Test Monday, Tuesday, 9/18

**After studying chapters 2-3, you should be able to:**

* Convert between standard and scientific notation
* List and use the SI units of measurement for mass, length, time, and temperature.
* Express and convert quantities using the common SI prefixes.
* Distinguish between the accuracy and precision of a measurement.
* Identify the number of significant figures in a measurement.
* Indicate a measurement’s uncertainty by using significant figures
* Apply the rules for significant figures in calculations to round off numbers correctly.
* Calculate the density of an object from experimental data.
* Calculate the percent error of an experimentally determined measurement.
* Use dimensional analysis to solve various types of problems.
* Convert between the Celsius and Kelvin temperature scales.
* Distinguish between the physical properties and chemical properties of matter.
* Compare and contrast the three main states of matter: solids, liquids and gases.
* Distinguish between the extensive and intensive properties of matter.
* Classify changes of matter as chemical or physical.
* Classify a sample of matter as a substance or a mixture; as homogeneous or heterogeneous.
* Explain the difference between an element and a compound.
* Identify common pieces of lab apparatus.
* Explain the uses of distillation, filtration and chromatography.

**Some Useful Websites**

<http://chemistry2.csudh.edu/homework/hwintro.html> Online HW Site (Bookmark this page!)

<http://chemistry.bd.psu.edu/jircitano/sigfigs.html> Significant figures

<https://www.chem.tamu.edu/class/fyp/mathrev/mr-sigfg.html>

<http://www.chem.tamu.edu/class/fyp/mathrev/mr-scnot.html> Scientific notation

<http://www.nyu.edu/pages/mathmol/textbook/scinot.html> Scientific notation

<http://antoine.frostburg.edu/chem/senese/101/matter/index.shtml> Includes some self-quizzes

<http://www.sciencegeek.net/Chemistry/taters/directory.shtml> Try the unit 0 question sets

<http://www.felderbooks.com/papers/units.html> Units and dimensional analysis

<http://chemwiki.ucdavis.edu/Analytical_Chemistry/Qualitative_Analysis/Classification_of_Matter>

<https://www.simbucket.com/simulation/chemthink-the-particulate-nature-of-matter/> Online tutorial

<https://www.learner.org/courses/essential/physicalsci/session4/closer1.html> Chemical vs. physical

changes

<http://chemistry.elmhurst.edu/vchembook/104Aphysprop.html> Physical properties & physical changes

<http://chemistry.elmhurst.edu/vchembook/105Achemprop.html> Chemical properties & chemical changes

<http://www.gmasononline.com/percentageerror.htm> Percent error

<https://www2.southeastern.edu/Academics/Faculty/rallain/plab193/labinfo/Error_Analysis/04_Accuracy_and_Precision.html> Accuracy vs precision

<http://www.chemteam.info/GasLaw/Convert-Celsius-Kelvin.html>

<http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/maps/ctof.rxml> Temperature conversions

<http://www.bbc.co.uk/education/guides/zgvc4wx/revision/1> Discussion of several separation methods

<https://www.ck12.org/book/CK-12-Chemistry-Concepts-Intermediate/section/2.8/> Separation

methods