

Bauck's CHEMISTRY Ch. 2 Test Review
This is an optional assignment due the day of the test.

Materials: loose leaf paper, pencil, calculator (clear memory if applicable)

Test date: _____

Test value: 200 points

Test format: math problems and calculations; short answer

Equations you will be given:	$K = C + 273$	$D = M / V$
------------------------------	---------------	-------------

Topics:

- 1) **Absolute zero**—What is it? What is its significance?
- 2) **Accuracy**—What is it? Compare and contrast with **precision**.
- 3) **Base unit**—What is it? Give examples for the base units of length, mass, time, temperature, and amount of substance.
- 4) **Conversion factor**—What is it? How are they used in calculations? Give an example of a common conversion factor.
- 5) **Density**—What does this measure? (Be able to solve the density equation for D, M, or V.)
- 6) **Derived unit**—What is it? Compare and contrast with **base unit**. Give three examples from the notes.
- 7) **Mass**—What does this measure? Give three examples of mass units. (Be able to recognize and work with various mass units.)
- 8) **Metrics**—What do the following abbreviations mean?: k, h, da, d, c, m (Be able to convert from one metric prefix to another.)
- 9) **Scientific notation**—How does this work? (Be able to convert numbers into and out of scientific notation.)
- 10) **Significant figures** (“Sig.Figs.”)—Why are these used in science calculations? (Be able to determine the number of sig.figs and calculate problems to the correct amount of sig.figs.)
- 11) **Slope** of a line graph—What is the formula?
- 12) **Temperature**—What does it measure? Give three examples of temperature scales from the notes. (Be able to recognize and work with various temperature units.)
- 13) **Volume**—What does this measure? Give three examples of volume units. (Be able to recognize and work with various volume units.)

Practice working math problems.

- a. Density (see notes and “Density practice”)
 - b. Dimensional Analysis (See notes and “Dimensional Analysis Practice 1-2”)
Metric prefix conversions (see notes, “Chem metric conversions,” and “SI and Metrics practice”)
 - c. Scientific notation (see notes and “Scientific notation practice”)
 - d. Significant figures (see notes and “Sig.Fig. practices 1-2”)
 - e. Temperature conversions using $K = C + 273$ (see notes)
-

*** Note: There will be at least one question pertaining to material in past chapter(s) or unit(s). ***