

Andy Aspaas, Instructor

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<http://webs.anokaramsey.edu/aspaas/1020/evening>

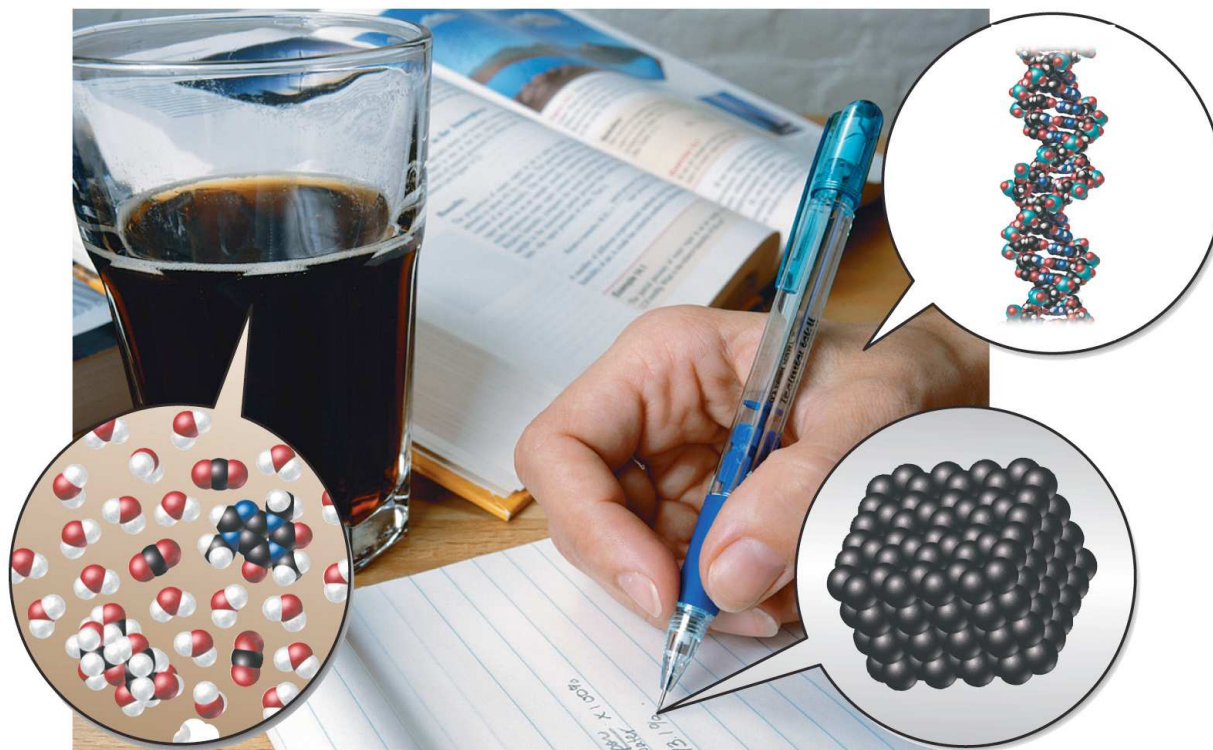
MasteringChemistry registration: See handout on webpage for step-by-step guide to registration. You will only do this registration once.

- Access code: bundled with book, available separate from bookstore, or available online
- Course ID: will be emailed to your MetNet email address on Tuesday morning. Please activate your MetNet before Tuesday if you have not yet (link on webpage)

Post-lecture 1 assignment and Pre-lecture 2 tutorial due at our next class meeting in two weeks, Jan 25.

D2L: Introduce yourself in discussions.

What is chemistry?



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Properties of atoms and molecules (*microscopic*)



Properties of substances (*macroscopic*)

Scientific method

A. A scientist notices that when burning a certain metal in a closed container, the mass of the entire container stays the same. *observation - single event / system*

raises question

B. The scientist performs many controlled tests, carefully measuring the masses before and after many chemical reactions. *experimentation - controlled variables*

C. The scientist finds that the mass will stay the same during ANY chemical reaction as long as it's in a closed container.

law : *summary of observations - not explanation of why/how*

D. This may be because substances in the air combine with the metal when it burns.

hypothesis : tentative explanation why/how

E. The work done confirms that all matter is made of atoms, and these atoms rearrange and recombine during chemical reactions.

theory : goal! *explanation confirmed by experiment!*

