Chemistry Concepts for Biology

How to learn this material:

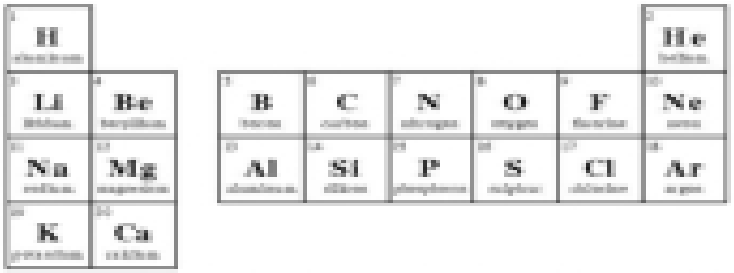
Because so much of this material can't be seen or touched, many students find learning the vocabulary and concepts of chemistry challenging. Overcoming this is mostly a matter of using your imagination, and working with these new concepts as much as you can. Repetition will help make these new ideas familiar to you.

Try making flash cards with important vocabulary words (in bold on this sheet) and their definitions. Quiz yourself on the bus, waiting in lines, or before you go to bed. Breaking learning up into short sessions will help you learn a few new concepts at every session. Be sure to review this material at least once a day until you've achieved mastery, and then at least one a week until the end of your class.

If you've been away from science for a few years, you may have forgotten what you learned in high school. Firm up your foundation by browsing through a grade 10 science textbook. It will remind you of some of the fundamental concepts you will use in Biology.

THE BASICS

All matter on earth is made up of **elements**. There are 118 elements in the periodic table. For biology, you need to know the names and symbols of the first twenty:



A sample of any element can be divided into smaller and smaller parts until you reach the **atom**, the smallest piece of matter that has the physical properties of the element.

Atoms are made up of **protons**, **neutrons**, and **electrons**. The **nucleus** is the centre of the atom and contains protons and neutrons. Protons have a positive electrical **charge**. This means they are attracted to or repelled from other particles that have charges. Neutrons have no electrical charge. Electrons form a cloud around the nucleus and

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