Using the K/W/L Strategy

The K/W/L strategy stands for "what I Know—what I Want to know—what I Learned." You start by brainstorming about the subject matter before reading the assigned material. Relating new ideas and concepts to those you have learned previously will help you better understand and apply the new knowledge you obtain. The section objectives throughout your textbook are ideal for using the K/W/L strategy.

- **1. Read the section objectives.** You may also want to scan headings, boldfaced terms, and illustrations before reading. Here are two of the objectives from Chapter 1, Section 2 to use as an example.
 - Explain the gas, liquid, and solid states in terms of particles.
 - Distinguish between a mixture and a pure substance.
- 2. Divide a sheet of paper into three columns, and label the columns "What I Know," "What I Want to Know," and "What I Learned."
- 3. Brainstorm about what you know about the information in the objectives, and write these ideas in the first column. Because this chart is designed primarily to help you integrate your own knowledge with new information, it is not necessary to write complete sentences.

- 4. Think about what you want to know about the information in the objectives, and write these ideas in the second column. Include information from both the section objectives and any other objectives your teacher has given you.
- 5. While reading the section or afterwards, use the third column to write down the information you learned. While reading, pay close attention to any information about the topics you wrote in the "What I Want to Know" column. If you do not find all of the answers you are looking for, you may need to reread the section or reference a second source. Be sure to ask your teacher if you still cannot find the information after reading the section a second time.

It is also important to review your brainstormed ideas when you have completed reading the section. Compare your ideas in the first column with the information you wrote down in the third column. If you find that some of your brainstormed ideas are incorrect, cross them out. It is extremely important to identify and correct any misconceptions you had prior to reading before you begin studying for your test.

What I Know What I Want to Know What I Learned

- gas has no definite shape or volume
- liquid has no definite shape, but has definite volume
- solid has definite shape and volume
- mixture is combination of substances
- pure substance has only one component

- how gas, liquid, and solid states are related to particles
- how mixtures and pure substances are different
- molecules in solid and liquid states are close together, but are far apart in gas state
- molecules in solid state have fixed positions, but molecules in liquid and gas states can flow
- mixtures are combinations of pure substances
- pure substances have fixed compositions and definite properties