

## Why Study Chemistry?

Chemistry is the science of atoms and molecules and the interaction between them. It is also the study of matter and the transformation it undergoes.

When you hear the word chemistry, most of the time you get scared or think that it is a subject beyond your reach. It is true that it is a different kind of subject or the language that needs to be learned. There is a great similarity between the language of chemistry and any other natural language. Let me expound on this thought.

All the natural languages have building blocks known as alphabets. For example, there are twenty-six alphabets like, A, B, C, D, etc in English language. These alphabets are the symbols for different sounds. Similarly, there are building blocks in chemistry known as elements. Currently, there are about 118 known elements. These elements have symbols like H, O, Na, Cl similar to alphabets. We combine two or more alphabets to create bigger aggregates called words like “book”, “paper”, etc. Similarly, we combine two or more elements to create bigger aggregates known as molecules like water ( $H_2O$ ), carbon dioxide ( $CO_2$ ) etc. We further take the words and string them together in different ways to create sentences. And using different sentences, we create a book. Similarly, molecules are combined in various ways to create what is known as a “matter” or “bulk matter” similar to the book. We have different matters similar to different books. These steps are summarized below:

Natural language :	Alphabets → words → sentences → book
Chemistry language:	Elements → molecules → matter

Look around yourself, what you see, what you feel, and what you experience is nothing but chemistry in one or the other form. From sunup and sundown, you are not free of chemistry: mouth wash, toothpaste, and brush you use early in the morning are chemicals; the soap and water you use to shower are chemicals; the cloths you wear, cotton or synthetic, are created by chemistry; the vitamins, medications, you take are chemical molecules; the very food you eat is nothing but chemicals; the paper and pencil or ball pen you use to take chemistry notes are also made from chemicals and chemical processes; the car you drive is full of chemistry, and the very air you breathe consists of chemical molecules. These are just a few to give you an idea.

Everybody wants to live longer. Living longer means understanding the food you eat and the environment you interact with. Studying chemistry makes you a better educated consumer so that you can decide which food is good for and which is not. Studying chemistry also means understanding your environment in terms of its constituents and its

impact on your life. If you understand the environment thoroughly, you will have a jolly and fruitful life.

Studying chemistry also makes you think systematically and develop an analytical mind. As you know, analytical mind is very important in every walk of life to become successful.

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If you want to read up more about how the chemistry is involved in your daily life, consult the following book:

**“Chemistry in a Day of Student’s Life”** by M. Kumbar, [iUniverse](#)