

**KERALA READER**

**CHEMISTRY**

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**STANDARD-X**



**GOVERNMENT OF KERALA  
DEPARTMENT OF EDUCATION**

**2004**

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## PLEDGE

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India is my country. All Indians are my brothers and sisters.

I love my country, and I am proud of its rich and varied heritage. I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect, and treat everyone with courtesy.

To my country and my people, I pledge my devotion. In their well-being and prosperity alone lies my happiness.

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## CHEMISTRY

Standard X

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## THE NATIONAL ANTHEM

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Jana Gana Mana Adhinayaka Jaya He

Bharatha Bhagya Vidhata

Punjab Sindhu Gujarata Maratha

Dravida Utkala Banga

Vindhya Himachala Jamuna Ganga

Uchala Jaladhi Taranga

Tava Subha Name Jage

Tava Subha Ashisa Mage,

Gahe Tava Jaya Gatha

Jana Gana Mangala Dayaka Jaya He

Bharatha Bhagya Vidhata

Jaya He Jaya He Jaya He

Jaya Jaya Jaya Jaya He.

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# CONSTITUTION OF INDIA

## Part IV A

### FUNDAMENTAL DUTIES OF CITIZENS

#### ARTICLE 51 A

Fundamental Duties:- It shall be the duty of every citizen of India-

- (a) to abide by the Constitution and respect its ideals and Institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practice derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievements.

**Dear learner,**

Chemistry is a branch of science that unravels for us the mysteries of the universe. You are now familiar with many basic concepts, processes and methods of analysis in chemistry. You have also acquired the ability to communicate concepts of science using the language of chemistry. To find out the complexities hidden behind phenomena that appear to be fairly simple to us, you have to journey to the higher levels of chemistry. To help you in this endeavour, some key topics in chemistry are taken up in this textbook.

The concepts and learning activities included in this textbook are intended to make comprehensive, the areas that you have learned in the lower classes as well as to give you a sound basis for learning chemistry at higher level. Learning chemistry at this level should include observing changes through various experiments, writing and balancing equations of chemical reactions, using different measurements, writing notes on experiments and observations and drawing structural diagrams and writing chemical equations. Through these activities you can acquire the skills and concepts underlying this textbook.

**Dr.P.M.JALEEL,  
Director, SCERT**

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