

KERALA READER
BIOLOGY

STANDARD - X



Government of Kerala
Department of Education

2004

THE NATIONAL ANTHEM

*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.*



GOVERNMENT OF KERALA

2004

Prepared by: State Council of Educational Research and Training (SCERT, Kerala)

PLEDGE

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 respect to my parents, teachers and all elders and treat everyone with courtesy.

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

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.



Students,

Every living organism is as complex as the universe we live in. Even single celled organisms visible only through microscope are treasure houses of infinite mysteries.

Amazing diversities and complexities are seen all around the living world. But some basic similarities are observed among them. These similarities, diversities and complexities are all subjects of study in the field of biology. Biology is a very important branch of science as it studies the most complex phenomena of the universe. It is not merely a branch of science through which the urge of humankind to study the search of the universe is quenched Biology presents certain practical possibilities to ensure development and well being of man. It is the basis for medical care and public health of people. All studies starting from the theory of evolution of Charles Darwin to the Human Genome Project of this century are the contributions of biology. This book may help you to examine and analyse certain important areas in biology.


The characteristics of biosphere, control and coordination of life processes, sense organs, evolution and the diversities of transportation of materials in organisms are the major areas included in the book. In addition, it discusses the need to prevent disease transmitting micro-organisms.

May this book be a guide to develop scientific aptitude and help you acquire new ideas and concepts in an interesting and scholarly manner, all aiding to lead a happy life ahead.

Dr.P.M.JALEEL

Director, SCERT

Poojappura, Thiruvananthapuram



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