

# MATH-MAGIC

## Book 3

### Textbook in Mathematics for Class III



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING



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**0325 – MATH-MAGIC**

Textbook for Class III

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- |                           |     |
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| 1. Where to Look From     | 1   |
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(Subject to certain conditions, some exceptions  
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- of opportunity in public employment;
- by abolition of untouchability and titles.

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- of certain protections in respect of conviction for offences;
- of protection of life and personal liberty;
- of free and compulsory education for children between the age of six and fourteen years;
- of protection against arrest and detention in certain cases.

### Right against Exploitation

- for prohibition of traffic in human beings and forced labour;
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**0325 – MATH-MAGIC**

Textbook for Class III

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**OFFICES OF THE PUBLICATION  
DIVISION, NCERT**

NCERT Campus

Sri Aurobindo Marg

**New Delhi 110 016****Phone : 011-26562708**

108, 100 Feet Road

Hosdakere Halli Extension

Banashankari III Stage

**Bangaluru 560 085****Phone : 080-26725740**

Navjivan Trust Building

P.O. Navjivan

**Ahmedabad 380 014****Phone : 079-27541446**

CWC Campus

Opp. Dhankal Bus Stop

Panihati

**Kolkata 700 114****Phone : 033-25530454**

CWC Complex

Maligaon

**Guwahati 781 021****Phone : 0361-2674869****Publication Team**Head, Publication Division : *Anup Kumar Rajput*Chief Editor : *Shveta Uppal*Chief Production Officer : *Arun Chitkara*Chief Business Manager : *Vipin Dewan*Editor : *Bijnan Sutar*Assistant Production Officer : *Deepak Jaiswal*



## Foreword

The National Curriculum Framework (NCF), 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy on Education (1986).

The success of this effort depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

National Council of Educational Research and Training (NCERT) appreciates the hard work done by the Textbook Development Committee responsible for this book. We wish to thank the Chairperson of the Advisory Committee, Professor Anita Rampal and the Chief Advisor for this book, Professor Amitabha Mukherjee for guiding the work of this committee. Several teachers contributed to the development of this textbook; we are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have generously permitted us to draw upon their resources, material and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of Professor Mrinal Miri and Professor G.P.



Deshpande, for their valuable time and contribution. As an organisation committed to the systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

New Delhi  
20 December 2005

*Director*  
National Council of Educational  
Research and Training





## Textbook Development Committee

### **CHAIRPERSON, ADVISORY COMMITTEE FOR TEXTBOOKS AT THE PRIMARY LEVEL**

Anita Rampal, *Professor*, Department of Education, Delhi University, Delhi

### **CHIEF ADVISOR**

Amitabha Mukherjee, *Director*, Centre for Science Education and Communication (CSEC), Delhi University, Delhi

### **MEMBERS**

Anita Rampal, *Professor*, Department of Education, Delhi University, Delhi

Asha Kala, *Lecturer*, DEE, Institute of Home Economics, New Delhi

Asmita Varma, *Primary Teacher*, Navyug School, Lodhi Road, New Delhi

Bhavna, *Lecturer*, DEE, Gargi College, New Delhi

Dharam Parkash, *Reader*, CIET, NCERT

Preeti Chaddha, *Primary Teacher*, Basic School, CIE, Delhi University, Delhi

Suneeta Mishra, *Primary Teacher*, Nagar Palika School, Bapudham, New Delhi

### **MEMBER-COORDINATOR**

Surja Kumari, *Professor*, Department of Elementary Education, NCERT



### **Illustrations and Design Team**

Srivi Kalyan, Chennai

Anita Varma, Delhi

Taposhi Ghoshal, New Delhi

Vandana Bist, New Delhi

Rajiv Gautam, *Street Survivors*,  
Murshidabad, West Bengal

Raja Mohanty, *Industrial Design Centre*  
IIT, Mumbai — Cover Design





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## MATH-MAGIC

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# CONSTITUTION OF INDIA

## Part III (Articles 12 – 35)

(Subject to certain conditions, some exceptions  
and reasonable restrictions)

guarantees these

## Fundamental Rights

### Right to Equality

- before law and equal protection of laws;
- irrespective of religion, race, caste, sex or place of birth;
- of opportunity in public employment;
- by abolition of untouchability and titles.

### Right to Freedom

- of expression, assembly, association, movement, residence and profession;
- of certain protections in respect of conviction for offences;
- of protection of life and personal liberty;
- of free and compulsory education for children between the age of six and fourteen years;
- of protection against arrest and detention in certain cases.

### Right against Exploitation

- for prohibition of traffic in human beings and forced labour;
- for prohibition of employment of children in hazardous jobs.

### Right to Freedom of Religion

- freedom of conscience and free profession, practice and propagation of religion;
- freedom to manage religious affairs;
- freedom as to payment of taxes for promotion of any particular religion;
- freedom as to attendance at religious instruction or religious worship in educational institutions wholly maintained by the State.

### Cultural and Educational Rights

- for protection of interests of minorities to conserve their language, script and culture;
- for minorities to establish and administer educational institutions of their choice.

### Right to Constitutional Remedies

- by issuance of directions or orders or writs by the Supreme Court and High Courts for enforcement of these Fundamental Rights.