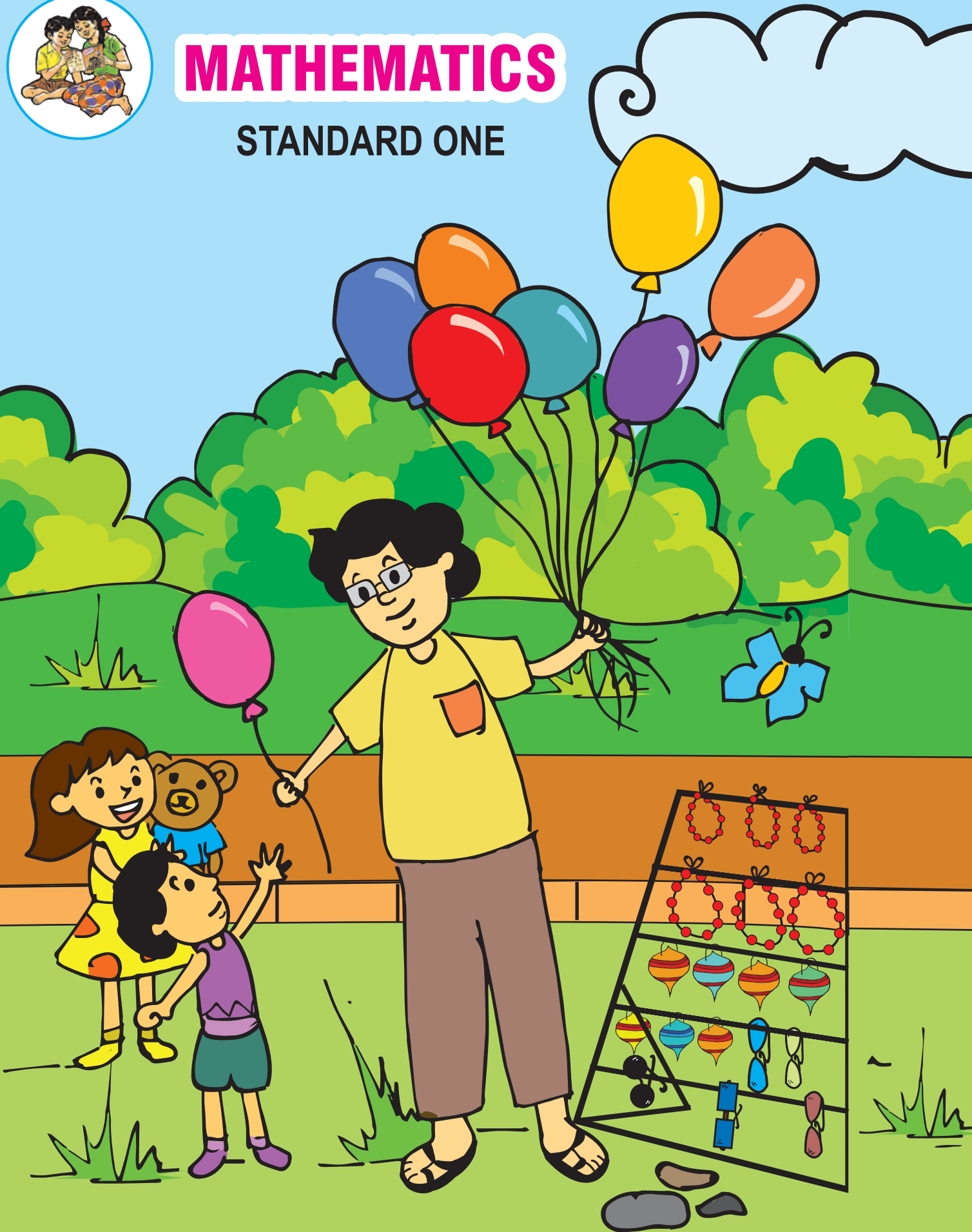




# MATHEMATICS

STANDARD ONE



# The Constitution of India

## Chapter IV A

### Fundamental Duties

#### ARTICLE 51A

**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 practices 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 and 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 achievement;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

The Coordination Committee formed by GR No. Abhyas - 2116/(Pra.Kra.43/16) SD - 4  
Dated 25.04.2016 has given approval to prescribe this textbook in its meeting held on  
08.05.2018 and it has been decided to implement it from the educational year 2018-19.

# MATHEMATICS

## Standard One



**Maharashtra State Bureau of Textbook Production and  
Curriculum Research, Pune - 411 004**



SJE5RL

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## **The Constitution of India**

### **Preamble**

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens :

JUSTICE, social, economic and political ;  
LIBERTY of thought, expression, belief, faith and worship ;

EQUALITY of status and of opportunity ;  
and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation ;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

## NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā  
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā  
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,  
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,  
Jaya jaya jaya, jaya hē.

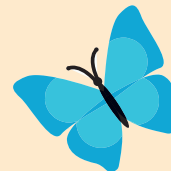
## PLEDGE

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 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.



## Preface

Dear Little friends,

Welcome to the first standard! Now you have new school, new friends, new teachers and new books. Open your new Mathematics book. You will find it amusing with colorful pictures, games and poems. Do jump around, dance, play and also learn maths with the book.

Counting is possible only if you are able to recite numbers first from one to ten and then from eleven to twenty. You can recite numbers using the fun songs in this book.

Fingers are useful in counting. You can decorate your fingers with colourful paper caps. Try to carry out the activities given in the book. Take help from your teachers, parents, siblings and friends for doing these activities. Rama and Yash will accompany you in this fun filled book-journey. A colourful kingfisher may appear to help you .

We need ample practice of additions and subtractions in practical life. Some stories in the book will help you to practise such sums. Some pictures are also given so that you can make stories based on them. Make such stories yourselves, prepare examples and enjoy posing problems to each other.

Q. R. Codes are given at the foot of some pages. You will find the information in the Q. R. Codes interesting.

You will find that Mathematics is an easy subject once you make friends with the numbers and play with them!

(Dr. Sunil Magar)

Director


Pune

Date : 16 May 2018

Indian Solar Year : 26 Vaishakh 1940

Maharashtra State Bureau of Textbook  
Production and Curriculum Research, Pune

## Mathematics Standard I - Learning Outcomes

Suggested Pedagogical Processes	Learning Outcomes
<p><b>All learners may be provided opportunities in pairs/groups/individually and encouraged to-</b></p> <ul style="list-style-type: none"> <li>observe different contexts and situations, for example, inside/outside the classroom.</li> <li>encourage them to use the spatial vocabulary or concepts like top-bottom, on-under, inside-outside, above-below, near-far, thin-thick, big-small etc.</li> <li>identify and draw the things which are near-far, tall-short, thick-thin etc.</li> <li>handle concrete materials and models and classify them, for example, objects which are round in shape like chapatti, ball etc. and which are not round such as pencil, box.</li> <li>count objects such as students may take out objects up to 9 from a given collection of objects such as picking any 8 leaves/4 beads/6 ice cream sticks etc. from the given box.</li> <li>take out objects up to 20 from a given collection of objects.</li> <li>use words like more than, less than or equal through the strategy of one to one correspondence in objects in two groups.</li> <li>explore different strategies to add numbers up to 9 like counting on forward and using already known addition facts.</li> <li>explore/Develop different strategies to subtract numbers up to 9 like recounting after taking out objects from a given collection.</li> <li>use different strategies like aggregation, counting forward, using addition facts etc., to extend addition up to 20 (sum no exceeding 20)</li> <li>develop different strategies of taking away through objects/pictures.</li> </ul>	<p><b>The learner —</b></p> <p>01.71.01 works with numbers from 1 to 20.</p> <p>01.71.02 classifies objects into groups based on the shape of the objects and size of the objects.</p> <p>01.71.03 recites number names and counts objects up to 20, concretely, pictorially and symbolically.</p> <p>01.71.04 counts objects using numbers 1 to 9.</p> <p>01.71.05 compares numbers up to 20, for example, tell whether number of girls or number of boys is more in the class.</p> <p>01.71.06 applies addition and subtraction of numbers 1 to 20 in day-to-day life.</p> <p>01.71.07 constructs addition facts up to 9 by using concrete objects, for example, to find <math>3+3</math> counts 3 steps forward from 3 onwards and concludes that <math>3+3=6</math>.</p> <p>01.71.08 subtracts numbers using 1 to 9, for example, the child takes out 3 objects from a collection of 9 objects and counts the remaining to conclude <math>9 - 3 = 6</math>.</p> <p>01.71.09 solves day-to-day problems related to addition and subtraction of numbers up to 9.</p> <p>01.71.10 recognizes numbers up to 99 and write numerals.</p> <p>01.71.11 observes, extends and creates patterns of shapes and numbers, for example, arrangement of shapes / objects / numbers like</p> <div style="text-align: center;">  </div>



Suggested Pedagogical Processes	Learning Outcomes
<ul style="list-style-type: none"> <li>count in groups of tens and ones for numbers more than 20 like 38 has 3 groups/bundles of ten each and 8 loose (ones)</li> <li>sort objects based on similarities and difference through their sense of touch and observation.</li> <li>use concrete play money for making amounts up to Rs.20.</li> <li>conduct classroom discussions on observation of pattern and allow them to describe in their own language. Let children find what will come next and justify the answer.</li> <li>observe and collect information from the visuals, contexts/situations such as number of items.</li> </ul>	<ul style="list-style-type: none"> <li>1, 2, 3, 4, 5, ...</li> <li>1, 3, 5</li> <li>2, 4, 6 ...</li> <li>1, 2, 3, 1, 2,...1,...3,...</li> </ul> <p>01.71.12 collects, records (using pictures/numerals) and interprets simple information by looking at visuals. (For example, in a picture of a garden the child looks at different flowers and draws inference that flowers of a certain colour are more.)</p> <p>01.71.13 understands the concept of zero.</p>

### Instructions for Teachers

Let's make efforts so that students understand and like Mathematics and find it enjoyable. Make sure that they are not afraid of maths. While dealing with the songs and games in the book, see that the students participate happily.

When it comes to counting, it is necessary to recite first from one to ten, and then from eleven to twenty. See that the students do it with pleasure. **A lot of practice of counting different objects is expected.** Small additions can be practised with the help of fingers. You can make a game out of it.

Specific instructions for teachers are given in the book at several places.



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