MATHEMATICS

STANDARD TWO

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.

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MATHEMATICS

Standard Two

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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


My dear friends,

Welcome to std II. You have read the books of std I and studied them well. And now you are in std II. You will enjoy the studies of std II as well, won't you? Your friends Yash and Rama are also with you. You will have several occasions to play games as you study maths.

You already know how to count objects. You will now learn to do small additions and then small subtractions. Make an effort to understand the method or procedure well. That will help you to experience the fun of maths. Just as you ask your teacher for help in school, you can get help from your parents, older brothers or sisters or anyone else, at home.

While studying lines and various other shapes, you are to draw figures or pictures. Drawing pictures and colouring them is something you like and enjoy, isn't it? You will get opportunities to do just that. You will also find some fun games useful for learning to add or subtract small numbers. Once you learn to add and subtract small numbers, you will find the maths problems of higher classes easier to solve.

The different types of mathematics help to make many of our tasks easier to do. Adding the same number again and again is a boring task. See how multiplication will help to make it quick and easy. You could also play game of asking each other small multiplications from the tables.

In order to understand how to subtract by borrowing, use ten-rupee notes and one-rupee coins. You can yourself make mock notes from paper and coins from card board. You don't need to use real currency notes and coins.

Q.R. Code is given at the end of each chapter. You will find interesting information in the Q.R Codes.

Maths in Std II is really quite easy. Learn as you play and enjoy your studies.

(Dr. Sunil Magar)
Director

Maharashtra State Bureau of
Text Book Production and
Curriculum Research, Pune

Pune
Date : 7 May 2019, Akshayya Trutiya
Indian Solar Date : 17 Vaishakh, 1941

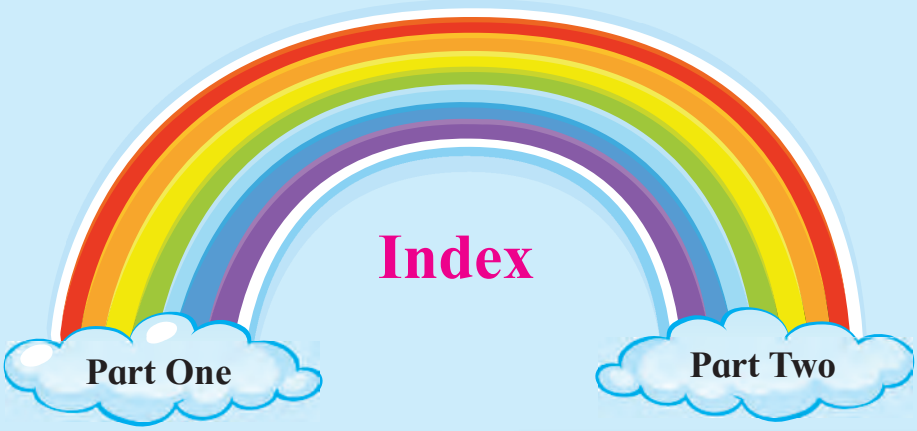
Mathematics Standard II - Learning Outcomes

Suggested Pedagogical Processes	Learning Outcomes
All learners may be provided opportunities in pairs/groups/ individually and encouraged to- • Telling the names of numbers and recognizing their pattern of writing on paper. Reading and writing numbers up to 99. • Understanding the place value of a digit in a number and use it to recognize or form groups. • Using addition facts up to 9 to carry out additions of two-digit numbers up to 99. • Developing other methods of addition and subtraction and using them. • Finding situations where addition or subtraction is involved, e.g. merging two groups, enlarging a group by increasing the number of things in a group. • Framing questions/ problems based on addition and subtraction, which the students themselves can relate to. • Creating a real or supposed situation in which a particular number will have to be added repeatedly. • Drawing diagrams of various faces of three-dimensional objects and naming the corresponding two-dimensional shapes. • Classifying various shapes by recognizing their physical characteristics with the help of their cut-outs or by folding a paper. • Describing the shape and physical characteristics of objects either by handling them or by observation. • Putting together an amount up to Rs 100 using mock money of different denominations. • Observing various balances and scales used to weigh things and discussing the experiences gained. • Making a simple balance and weights and use them to compare weights of various objects.	**The learner —** 02.71.01 Can carry out operations on two-digit numbers. — Can read numbers up to 99 and write numbers up to 50 in words. — Can make up tables of the numbers 2, 3, 4 and 5 with the help of easily available objects and can use the tables. — Can use the place value of numbers while writing or comparing two-digit numbers. — Can make the greatest and the smallest two-digit numbers using two given digits (with or without repetition of digit) — Can solve simple everyday problems or questions involving addition of two-digit numbers. — Can solve simple everyday problems or questions involving subtraction of two-digit numbers. — Can put together an amount up to Rs 100 using various notes and coins of different denominations. 02.71.02 Can describe the visual characteristics of two-dimensional and three-dimensional objects. — Can recognize and name common three-dimensional shapes, e.g. cube, cylinder, cone and sphere. — Can draw two-dimensional diagrams of three-dimensional objects — Can recognize two-dimensional shapes, e.g. rectangle, square, triangle, circle. 02.71.03 Can distinguish between straight and curved lines. 02.71.04 Can draw straight lines in different ways – vertical, horizontal, inclined.

Suggested Pedagogical Processes	Learning Outcomes
• Measuring some lengths of small objects in the surroundings using non-standard unit such as a finger, hand-span, length of arm or foot, etc. • Being able to tell the criteria or characteristics used while classifying different solids/ shapes. • Discussing the household tasks done or time spent with their family on some specific occasion. • Visualizing both a feature that repeats itself in a pattern as well as the final pattern obtained due to that feature, and expressing in words what has been visualized. • Extending the pattern formed from various shapes, fingerprints, prints of leaves or numbers. • Collecting information from people in the surrounding, maintaining a record of the information collected and drawing conclusions from it.	02.71.05 According to their physical characteristics, can describe solid objects in their own words. e.g. a ball rolls, a box slides, etc. 02.71.06 Can estimate and measure the length of objects using non-standard units such as fingers, hand span, arm, foot, etc. 02.71.07 Can compare two objects using a common balance and can express the comparison in words such as '…..is heavier than….', '…is lighter than….' 02.71.08 Can tell the names of the days of a week and the months of a year. 02.71.09 Can analyse the information collected and draw inferences from it. e.g. the number of vehicles used in Sameer's house is more than those used in Anjalee's house. 02.71.10 Can tell the values of notes and coins up to hundred rupees and can carry out the operations of addition and subtraction on them.

For teachers

Please note that children are expected to learn to write in words, numbers from 1 to 50 only. The mathematical concepts to be taught are the same as before. Do give enough time and practice for learning addition by carrying over and subtraction by borrowing. It is important for children to learn how ten Units make a Ten, and how a Ten can be untied to obtain ten units. Besides using beads, strings and sticks of Ten, you will also find ten-rupee notes and one-rupee coins to be very useful. Get the children's help in cutting out rectangular pieces of card paper of the same size to make ten-rupee notes and small discs of cardboard to make one-rupee coins. Encourage them to use these mock notes and coins to learn addition by carrying over and subtraction by borrowing. Also guide them in making the multiplication tables of the numbers 2, 3, 4 and 5. Give the children plenty of practice to solve examples through various activities.



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