Government of Tamilnadu

## STANDARD ONE

## TERM III

## Volume 2

## Mathematics

Environmental Studies

NOT FOR SALE

Untouchability is Inhuman and a Crime

## A publication under Free Textbook Programme of Government of Tamilnadu

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First Edition - 2012
(Published under Uniform System of School Education Scheme in Trimester Pattern)

Textbook Preparation and Compilation State Council of Educational Research and Training

College Road, Chennai - 600006.

Wrapper and Book design
R. Anandhan

Textbook Printing

## Tamilnadu Textbook Corporation

 College Road, Chennai - 600006.This book has been printed on 80 G.S.M. Maplitho Paper

Price: Rs.

Printed by Offset at:

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# Mathematics 

## STANDARD ONE

## TERM III

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## Dear Friends,

This textbook is intended to facilitate joyful learning for the children and to evolve and build upon their learning skills.

This book is enriched by stories, picture sequences, songs, number games, life-oriented mathematics and group activities. All these facilitate the learning of shapes, figures, numbers, measurements, patterns and data.

The activities incorporated in the textbook have been carefully designed to enable the learners to explore the mathematical concepts by touching, seeing, listening, practising, talking, discussing, analysing and colouring.

The exercises related to the understanding of relationship between numbers and their basic operations provide opportunities for the children to imbibe the concepts and express them.
'I can' activities have been incorporated as an inbuilt process of evaluation to enable the children to assess their attainment level.

This textbook seeks to build a forum for dynamic and creative interaction between the teacher and the children.

Authors

## 1 <br> Measurements

## How do they measure?



Let the children observe the pictures carefully. Discuss with them how the items are measured in different ways.

## Long - Short




Compare two objects and show them which is longer and which is shorter. Then, help the children put ' $\sqrt{ }$ ' on longer objects and ' $x$ ' on shorter ones.

## Tall - Short

Tick $(\checkmark)$ the taller.


Tick $(\checkmark)$ the shorter.


Let the children talk about the tallness and shortness of persons, trees, buildings etc.
Heavy - Light


MATHEMATICS
Tick $(\checkmark)$ the lighter ones in weight. Cross $(x)$ the heavier ones in weight.


## Thick - Thin

Tick $(\checkmark)$ the thicker ones. Cross $(x)$ the thinner ones.



Give some objects to children and help them in distinguishing the thinner ones from the thicker ones. Example: five-rupee coin and a 50 -paise coin.

## Measure them



Mark the span of your hand in the box.


Span - a unit of length based on the width of the expanded human hand (usually taken as 9 inches)

Let the children measure the objects in the class using their hands (hand span)

## Measure with foot.




> Let the children measure the length of something in the school campus and also measure the distance between two objects or points.


Let them tell when, where and how they have carried out these actions. Ask them to arrange the actions in a sequence from dawn to dusk.

## Arrange the actions in order by numbering 1,2,3.



Tick $(\checkmark)$ the morning activities.


## Tick $(\checkmark)$ the evening activities.



Let us play
Let the children sit in a circle. One child runs around the circle and pats one of the children who is sitting in the circle. The patted one gets up and runs in the opposite direction. When they meet, they greet each other and try to sit in the empty space quickly. One who fails to sit should continue the game.

## Money




Show the children different currency notes and coins and explain to them their values with everyday examples. Strengthen the concept through a role-play Example: shopping.

## Match the following.




## I can

Tick $(\checkmark)$ the currencies and coins for the price.

SOIIVWEHLVW


## 2 Numbers from 21 to 50

Betty buys a box of pens Betty buys a box of pens Pretty pens, pretty pens


Ten in number, ten in number!


Benny buys a box of pens
Betty gives him one more box
Now, Benny has twenty pens
Twenty in number, twenty in number!
Tippu buys a box of pens Benny gives him twenty pens Now, Tippu has thirty pens
Thirty in number, thirty in number!


Flora buys a box of pens
Tippu gives her thirty pens
Now, Flora has forty pens
Forty in number, forty in number!
Fazil buys a box of pens
Flora gives him forty pens
Now, Fazil has fifty pens
Fifty in number, fifty in number!


[^0]Write down the numbers in tens and ones.

| .000000000 0000000 | Tens | ones | 0000000000 00000000 | Tens ${ }^{\text {ones }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 7 |  | 1 | 8 |
| 17 |  |  |  |  |  |

Count the beads and write down the number.


Draw a picture of beads for the numbers given.


Fill in the boxes.


Count the beads and write down the numbers.


MATHEMATICS


Count the boxes and write down the numbers.


Count the beads and match.

MATHEMATICS


Give practice using learning materials.

## I can find out the missing numbers

 Write the missing numbers.$$
\begin{array}{|l|l|l|l|l|l|l|l|l|l|}
\hline 21 & 22 & & 24 & 25 & & 27 & & 29 & 30 \\
\hline
\end{array}
$$

| 31 |  | 33 | 34 |  |  |  | 38 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 41 | 42 |  |  | 45 |  |  |  |  | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Write the missing numbers on the train.


Write the missing numbers in the picture.


Join the dots in order and colour.



Fill in the table.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |

Discuss the picture with children and let them count and write the number in each category of pictures (vehicles, houses). Let the children observe the pictures from newspapers also and discuss in the class.

How many of the following articles are there in your house?

SOILVWEHIVW

| Things | Number |
| :---: | :---: |
|  |  |

Fill in the table.

| Class |  | $\stackrel{\square}{4}$ | or | 寿 | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |

Help the children to count the number of objects in each classroom and write the number in the table.

## I can

Distinguish the shapes found in each picture and count them?
Write the number of shapes that you counted.


Complete the pattern.

| $\uparrow$ | $\downarrow$ | $\uparrow$ | $\downarrow$ | $\uparrow$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$$
\begin{array}{|l|l|l|l|l|l|}
\hline \rightarrow \mid \square & \rightarrow & & & & \\
\hline
\end{array}
$$

\[

\]

$$
\begin{array}{|l|l|l|l|l|l|l|}
\hline I I=\mid I I & I I & & & & & \\
\hline
\end{array}
$$

Complete the pattern.

$$
\begin{aligned}
& \begin{array}{|l|l|l|l|l|l|l|l|l|}
\hline \mathrm{T} & \perp & \mathrm{~T} & \perp & \mathrm{~T} & & & & \\
\hline
\end{array}
\end{aligned}
$$

## 

## OONOWON|

$$
\begin{array}{|l|}
\hline \nabla|\triangle| \triangle|\nabla| l|l| l \mid \\
\hline
\end{array}
$$

\section*{| $0\|O\| O\|O\|$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |}

$$
\begin{array}{|l|l|l|l|l|l|l|l|l|}
\hline) & (D) & ( & ) & & & & & \\
\hline
\end{array}
$$

Find out the number patterns and fill in the missing numbers.

$$
\begin{aligned}
& 1 / 2 / 3
\end{aligned}
$$



## I can do

Study the pattern and match.


## Guide the rabbit.



Write down the numbers that the rabbit comes across.
$2,4,-,-, \quad,-,-,-\quad-, 20$

## 4 Numbers from 51 to 100

Count the beads and write down the numbers.

SOIIVWEHLVW


Tens


Encourage the children to count and write the numbers from 51 to 100 using learning materials. Then, let the children do the above exercise.



## Count the beads and write down the numbers.



MATHEMATICS


## Draw pictures of beads matching the numbers.



SOIIVWEHIVW

## Fill in the boxes




81


111 91 93

100

## I can do

Fill in the table.

| 51 | 52 | 53 |  | 55 |  | 57 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 62 |  |  |  | 66 |  |  |  |  |
|  |  | 73 |  |  |  |  |  |  | 80 |
|  | 82 |  |  |  |  |  | 88 |  |  |
| 91 |  |  |  | 95 |  |  |  |  | 100 |

Join the dots and colour.


Follow the pattern and colour the numbers.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

## ENVIRONMENTAL STUDIES

## Standard One

## Term III

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Dear Teacher,
We all know that children enjoy nature around them- the trees, the plants, the animals, the birds and the rain. This book starts from their life experiences i.e what they have seen and enjoyed. The activities are based on their own experiences, about the people and the world around them.

Children may know a few songs and stories when they come to school. Quite naturally they enjoy listening stories, singing songs and playing games. So we have included pleasant songs, enjoyable stories, thought provoking activities and games. Several opportunities have been provided to kindle the imagination of the children. They can make up stories, act them out, sing and dance joyfully.

Children love to draw. This natural ability to draw and be creative has scope in simple line drawing, imaginative drawing and colouring activities. Every chapter has "I can" activities that provide a scope for self-evaluation. Every child has different life experiences. We need to provide time for discussions so that children share their thoughts, ideas and observations. An atmosphere conducive to raise questions must be provided in the classroom.

Learning does not take place only in the classroom. Learning should be extended to the outdoors where children will learn happily. Many people help us in our daily life. If children can interact with them, it will widen their understanding and build respect for their work.

Science is a part of everyday life and can be understood by observation. A love for nature and caring for it should be inculcated in the formative years of childhood.

Authors

## The wind blows! The rain falls!

## Shall we float paper boats?



The wind blows, the wind blows
Welcome the clouds
Rain comes, rain comes
Gather up the grains
Flows away, flows away
The flood on the way
Make a boat, make a boat
Small and stout
Float the boat, float the boat
Bring umbrellas with joy
Sing and dance with them

- Do you like the rain?
- Have you played with paper boats in the rain?
- Do you know how to make a paper boat?
- What do you carry when you go out in the rain?
- How is your street when it rains?
- Is there mud in your street?
- How do the plants around your house look in the rain?
- Have you experienced the smell of the earth when it rains?
- What sounds do you hear, when it rains?
- What do you like to eat on a rainy day?
- Will there be power failure in your village when it rains?
- Can plants and creepers grow without rain?
- What are the uses of water?

Sing the song with the children. Discuss the above questions with the children.


## The Sound of Rain!

When the teacher says 'one' the children tap their left palm with their right index finger.

When the teacher says 'two' tap with two fingers and so on till number 'four'.

Now you can hear the sound of rain.




Make a hole on a reel.


Place a pea on the hole.
 with a piece of paper as shown here.


Blow slowly from the open end and observe what happens.

Saravanan enjoyed making it. Why not you?


The teacher can help the children to colour balloons with seven colours of a rainbow.


## I can

- What do you carry when you go out in the rain? Identify the objects and colour them.

- Make a paper boat.
- What sounds do you hear when it rains?
- What are the uses of water?
- Sing a song about wind.

- What are the vehicles you see in the picture?
- What vehicle do you have at home?
- Have you travelled by bus? Speak about your travel experience.

Can you count the number of wheels $\stackrel{\rightharpoonup}{-}$ in the vehicles?


How many of these are here?
Two-Wheelers $\qquad$ .

Three-Wheelers $\qquad$ .

Four-Wheelers $\qquad$ .

Vehicles having more than four Wheels $\qquad$ .

Help the children to know the names of the vehicles and their number of wheels.



Draw a picture of any vehicle that you like and colour it.

Can you identify the form of transport?

- Mark $\bigcirc$ for those that move on land.
- Mark $\square$ for those that move in air.
- Mark $\triangle$ for those that move in water.


Make these with your thumb-impression.


Project: Shall we make an album?
Collect the pictures of different vehicles you like and make an album.

## I can

- You can find one vehicle in all the three rows. Which is that? Circle it.

- Write the names of the vehicles with more than four wheels.
- Where do they move? (land, air or water) Write in the space provided.





Have you seen the sky during the day?
Can you see the stars during the day?
Name the colours you see in the sky during the day.
How does the sky look when the sun rises in the east?
What is the colour of the sky when the sun sets in the west?
Can we see the moon in the sky during the day?
Do you like the daytime or the nighttime? Why?


## Have you seen the sky at night?

- What is the colour of the sky at night ?
- Can we see the colour of trees and flowers at night?
- Can you see the moon in the sky every day?
- What twinkles in the sky?
- Can we count the stars?
- Does the moon appear to be of the same size every day?
ENVIRONMENTAL STUDIES

$\square$


## Morning scenes at home



* What are they doing?
* What work do the members of your family do in the morning?
* What are the regular activities you do in the morning ?

Ask the children to look at the pictures carefully. Have a discussion on the activities of the morning.

## Here is the riddle! Where is the answer!

1. However near you go, you cannot reach it. What is it?
2. They are spread all over the sky. You cannot count them all. What are they?
3. It looks like a silver plate. It comes and goes. What is it?


Share a few more simple and new riddles in the classroom.

## The night sky



## Materials needed :

A black chart, cotton wool, sequins (chamki) and gum.

## Method:

$\star$ Cut the black chart into a square.

* Draw a crescent moon at the centre of the black chart.
$\star$ Apply gum on the picture. Paste cotton wool and make it a crescent.
* Stick the sequins here and there and make the stars. to the children.


## I can

- What do we see in the sky at night? Colour them.

- What do you see in the sky during the day?
- Draw a picture of Sun and colour it.


[^0]:    Introduce the numbers from 21 to 50 by using learning materials.

