



Government of Tamilnadu

# STANDARD TWO

**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**

**Department of School Education**

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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 - 600 006.

Wrapper and Book design

N.Srinath, R.Yuvaraj

**Textbook Printing**  
**Tamilnadu Textbook Corporation**  
College Road, Chennai - 600 006

This book has been printed on 80 G.S.M. Maplitho Paper

Price: Rs.

Printed by Offset at:

Textbook available at  
[www. textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

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# MATHEMATICS

## SECOND STANDARD TERM III

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**Laser typeset, Layout, Illustrations & Wrapper Design**

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# 1. Patterns in Numbers

We have already seen some patterns with shapes and figures.  
Now, we can create patterns with numbers.

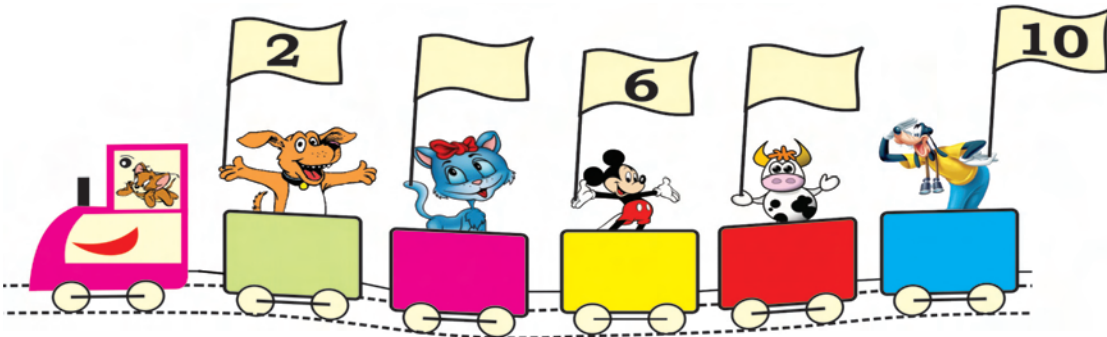


Look at this number pattern.

**1, 3, 5, 1, 3, 5, ...**  
**10, 20, 30, 10, 20, 30, ...**

*A number pattern is a chain of numbers  
which follows a certain order.*

Complete the journey of cartoons.



### Fill in and complete the number pattern

1. 1, 2, 3, 1, 2, 3,

			,				,			
--	--	--	---	--	--	--	---	--	--	--

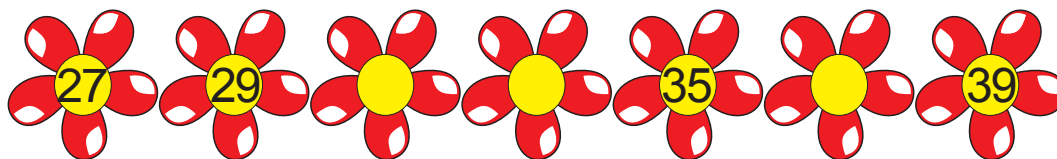
2. 49, 59, 49, 59

		,			,		
--	--	---	--	--	---	--	--

3. 5, 55, 5, 55,

		,			,		
--	--	---	--	--	---	--	--

### Identify the number pattern and complete them





Observe each number pattern and fill in the boxes.

$$\boxed{17} \longrightarrow \boxed{71}$$

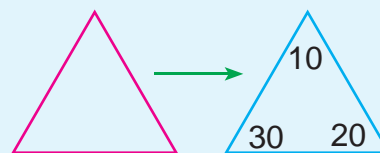
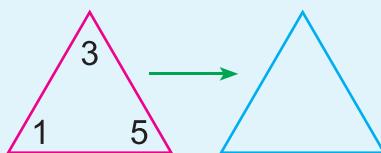
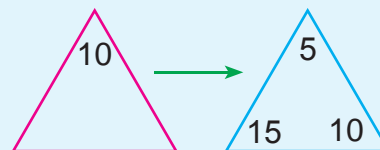
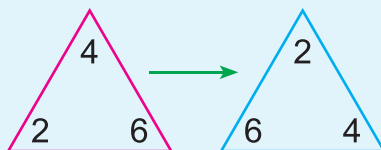
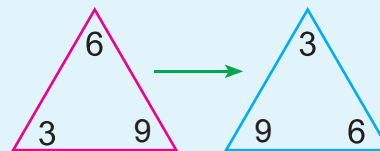
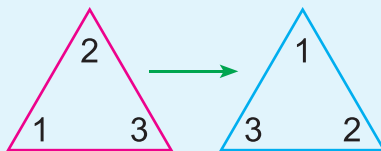
$$\boxed{45} \longrightarrow \boxed{\phantom{00}}$$

$$\boxed{25} \longrightarrow \boxed{52}$$

$$\boxed{\phantom{00}} \longrightarrow \boxed{89}$$

$$\boxed{69} \longrightarrow \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} \longrightarrow \boxed{35}$$



$$\boxed{1, 3, 5} \longrightarrow \boxed{2, 4, 6}$$

$$\boxed{33, 35, 37} \longrightarrow \boxed{\phantom{00, 00, 00}}$$

$$\boxed{11, 13, 15} \longrightarrow \boxed{12, 14, 16}$$

$$\boxed{77, \phantom{00}} \longrightarrow \boxed{78, 80, 82}$$

$$\boxed{21, 23, 25} \longrightarrow \boxed{\phantom{00, 00, 00}}$$

$$\boxed{\phantom{00, 00, 00}} \longrightarrow \boxed{44, 46, 48}$$





Help Anand to go to the playground by crossing some number patterns !

A maze puzzle with a grid of colored squares (blue, pink, and white) and numbers. The path starts at a blue square with a downward arrow at the top left and ends at a blue square with a rightward arrow pointing to a playground illustration at the bottom right. The numbers along the path are: 5, 10, 20, 30, 40, 45, 55, 60, 70, 85, 95.

5	10			20				35
10								
	20			30		55	60	
20								70
		30				45		
				40				
						85		
35			45					95

## 2. Measures of Capacity

We observe that...



has more capacity than a



has less capacity than a



**The capacity (volume) of a container depends on its size.**





### **ACTIVITY**

Filling water

a) Take an  to fill up a 

**Ans :** ..... ink filler

b) Take a  to fill up a 

**Ans :** ..... bottle cap



c) Take a  to fill up a 

Ans : ..... bowl

d) Take a  to fill up a 

Ans : ..... bottle



**ACTIVITY**

• Take sand grains in a  and pour them down on a sheet of newspaper.

• Take sand grains in your  and pour them next to the previous heap.

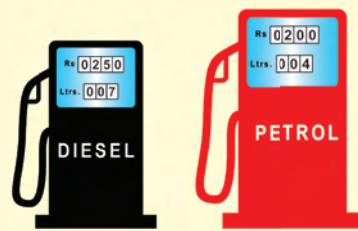
• Take sand grains in a  and pour them next to the two heaps.

Compare the three heaps of sand grains and find out which one of them has the least capacity.

[Spoon / bowl / two palms]



We buy oil, milk, petrol by measuring their volume (capacity).



- The smallest unit of capacity is Millilitre.
- The standard unit for measuring liquids is Litre.

### **ACTIVITY**

Ask and learn from your mother

- ★ The quantity of oil she buys for a month
- ★ The quantity of milk she buys every day.

Do you know ?

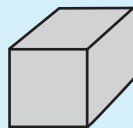
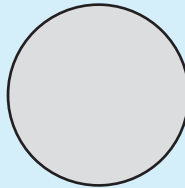
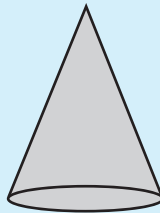
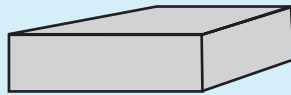
A child must drink 6 to 8 tumblers (nearly 2 litres) of water every day



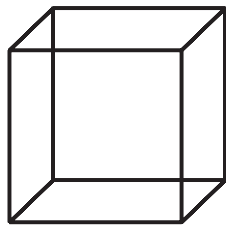
# 3. Figures

## ACTIVITY

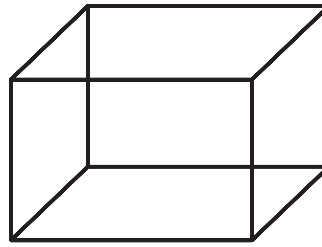
Match the objects with their figures.



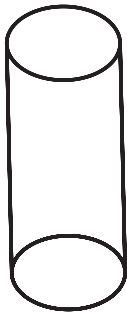
Look at the shapes of these figures ! Learn their names!



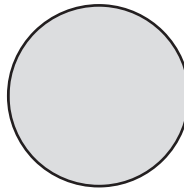
Cube



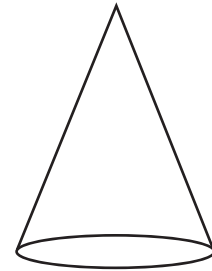
Cuboid



Cylinder



Sphere



Cone

 **ACTIVITY**

Children are asked to sit in circles and close their eyes.

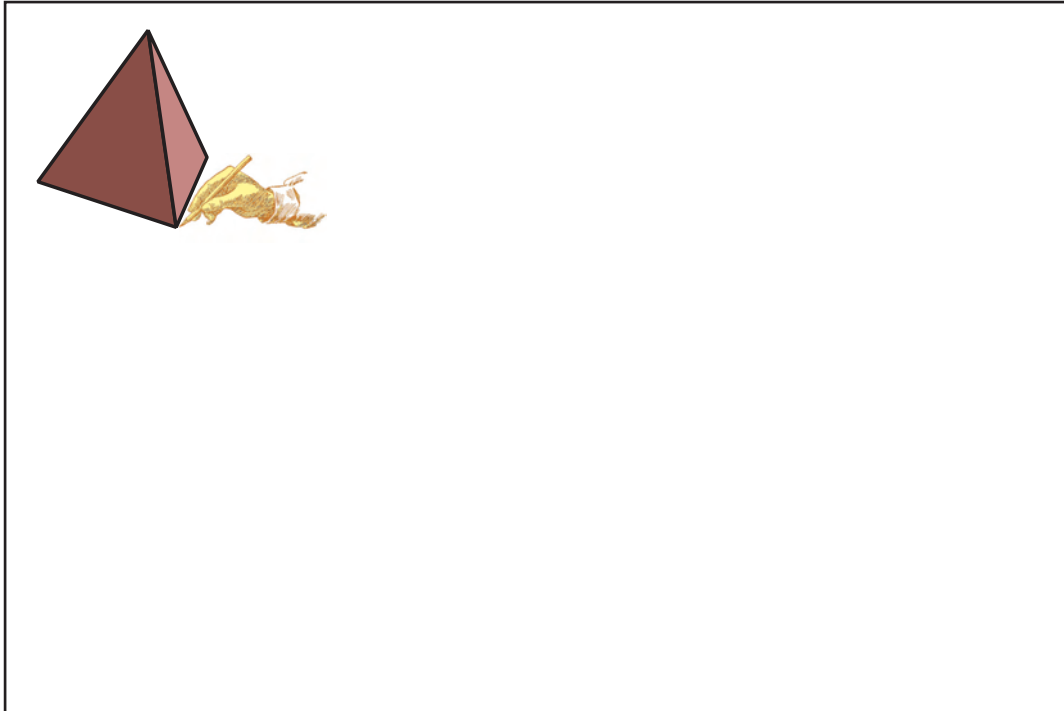


Teacher gives different objects and asks the children to name them.







## Draw outlines of objects and learn!

Collect dice, bottle cap, matchbox, eraser, coin, prism etc... and trace below as shown.



Now, you have learnt that the faces of the three dimensional figures give the outlines of two dimensional shapes.

List the names of the things you have used to draw the following figures.

			
Eraser			

**Find out the shapes of the following.**

Cuboid, Cube, Cone, Cylinder, Sphere

Sweet lime \_\_\_\_\_ Sphere \_\_\_\_\_

Matchbox .....

Dice .....

Tube light .....

Funnel .....

Book .....

Globe .....

Flute .....

Joker's cap .....

Pile of one-rupee coins .....







# 4. Study of Data

Uma wants to count the flowers in her garden. The data of different types of flowers in her garden are given below.

Let us help Uma to count the flowers.



Flowers	In numbers
	
	
	
	



'Data' is a collection of facts and figures





**Ravi tabulated the weight of his friends. Arrange the data in descending order.**

Name	Weight(kg)
Babu	18
Elango	21
Mamtha	16
Rajan	22
Sumathi	19
Aruna	17

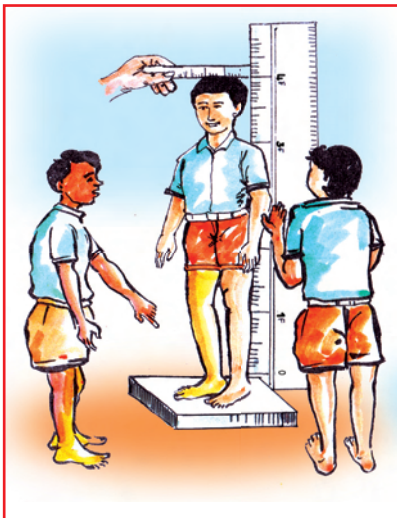


Name	Weight (kg)
Rajan	22

**Among Ravi's friends.....**

- ✔ Who weighs the most? .....
- ✔ Who weighs the least? .....
- ✔ Who weighs more than Elango? .....
- ✔ Who weighs less than Aruna? .....

**Let us find out**



With the help of your teacher, write the names of your friends and their measure of heights.

Name	Height (cm)

**Arrange the data in ascending order.**

Name	Height (cm)

- \* The highest measurement is .....cm.
- \* The least measurement is.....cm.
- \* What is your height? .....cm.
- \* How many of them are taller than you? .....
- \* How many of them are shorter than you? .....





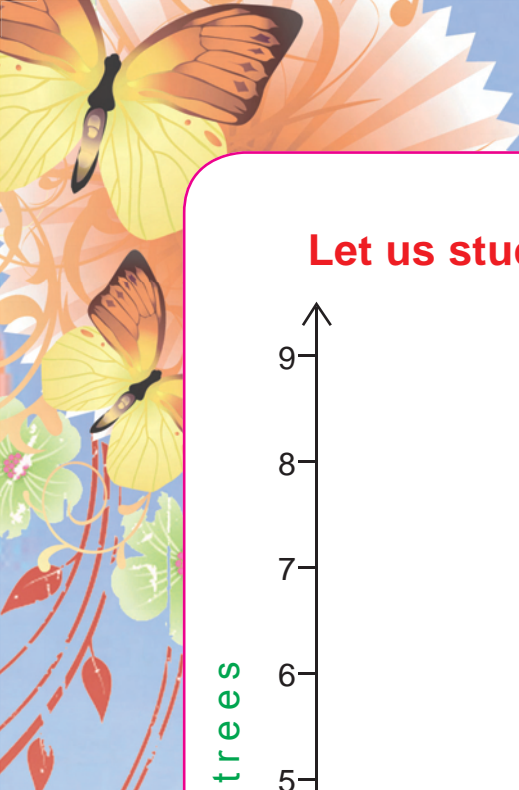
## Data on favourite game



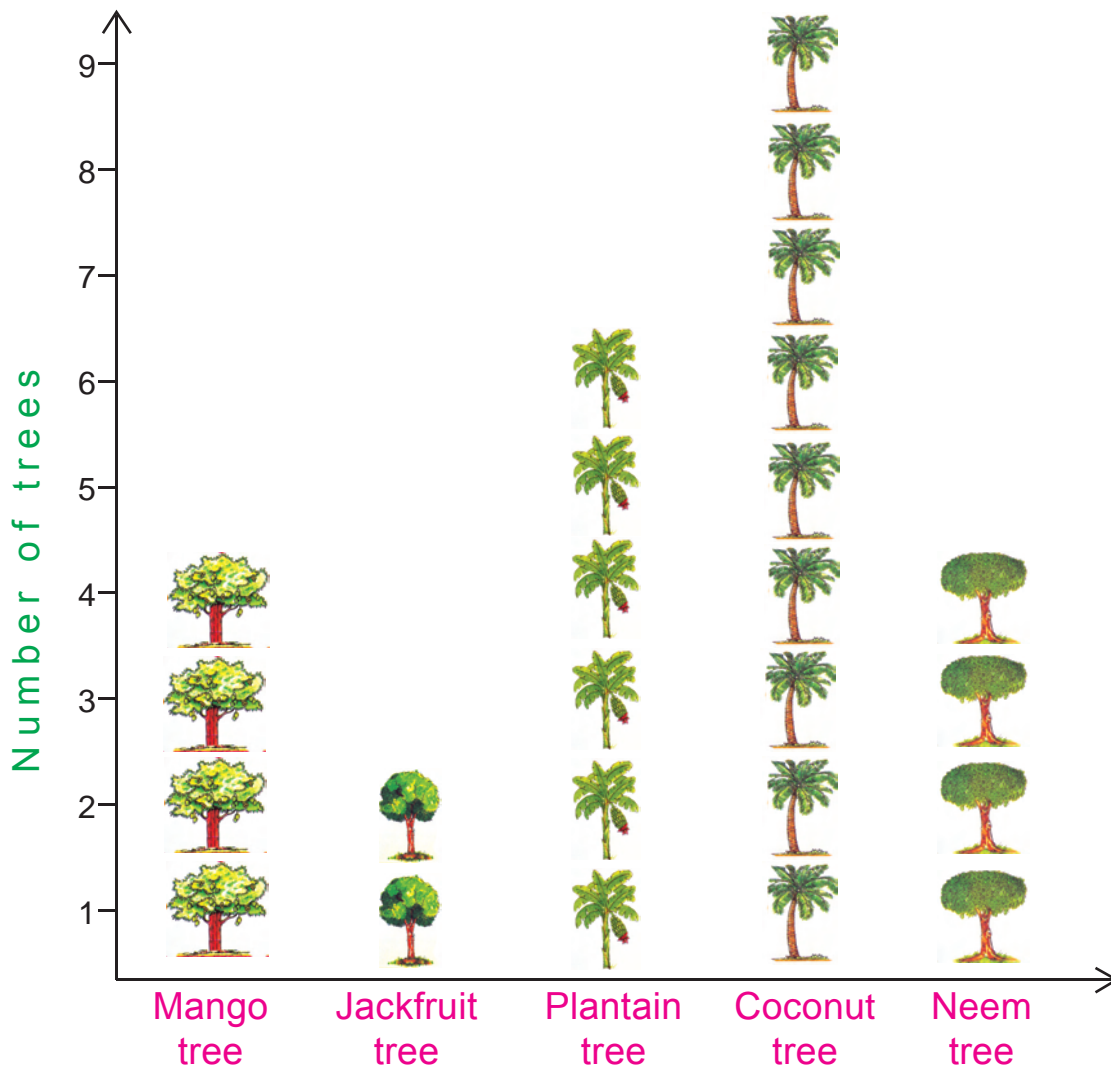
## Complete the table

Game	Children (Pictograph) 😊									In numbers
Volleyball	😊	😊	😊	😊	😊					5
Cricket	😊	😊	😊	😊	😊	😊	😊	😊	😊	.....
Kabadi	😊	😊	😊	😊	😊					.....
Basketball	😊	😊	😊	😊						.....
Football	😊	😊	😊	😊	😊	😊	😊	😊		.....

- ✳ How many children like volleyball? .....
- ✳ Which is the game liked by most of the children ? .....
- ✳ How many of them like kabadi? .....
- ✳ How many of them like basketball? .....
- ✳ How many of them like football? .....
- ✳ The total number of children in the classroom: .....



Let us study the data on various trees in a farm.



Types of trees

♣ Number of mango trees .....

♣ Number of jackfruit trees .....

♣ Number of neem trees .....

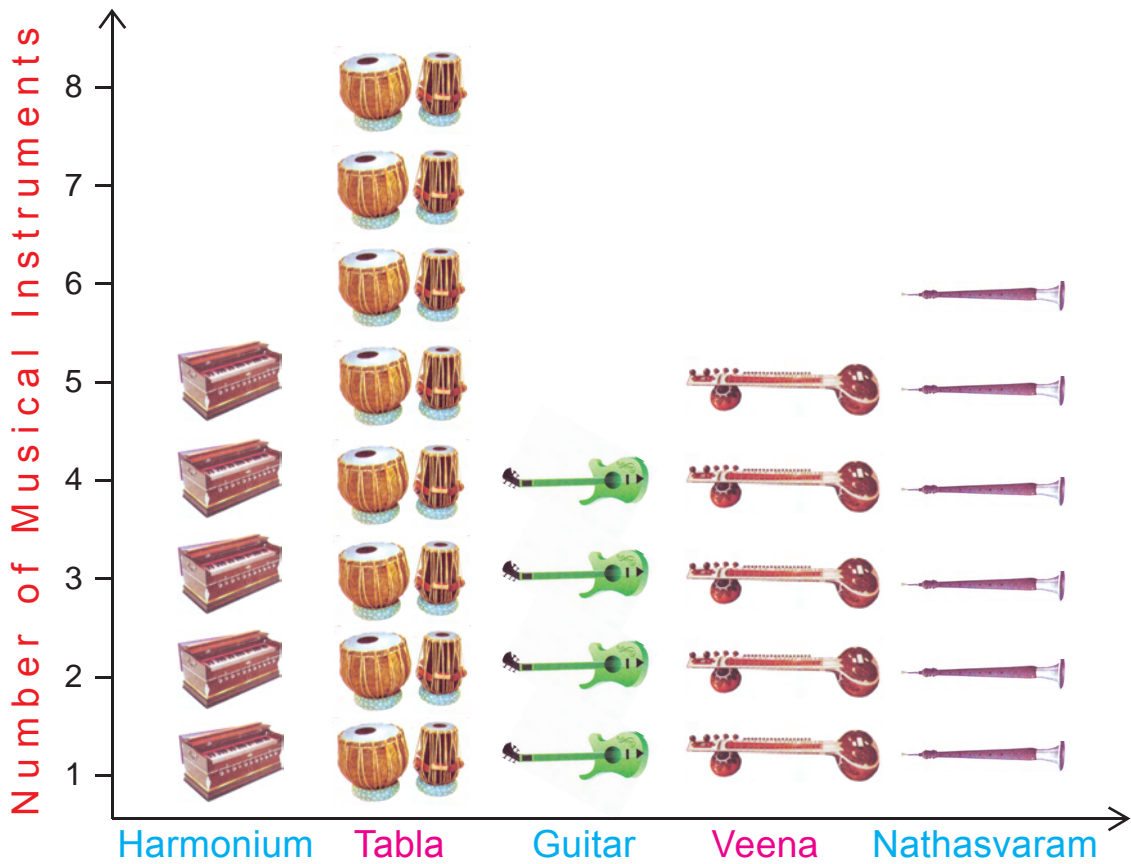
♣ Name the trees which are equal in number

..... , .....










♣ The total number of trees in the farm .....



**Look at the Musical Instruments. Fill in the blanks.**



**Musical Instruments**

- 
 Number of  .....
- 
 Number of  .....
- 
 Number of  .....
- 
 Name the instrument that is the least in number .....
- 
 Name the instrument that is the most in number .....
- 
 Name the instruments which are equal in number .....  
 ....., .....

**ACTIVITY**

Name the month in which your family members were born.



Father	
Mother	
Grandfather	
Grandmother	
Elder brother	
Elder sister	
Younger sister	
Younger brother	



Myself:.....

**ACTIVITY**

Collect the names of favourite fruits of your friends. Tabulate the details.



(Apple, Banana, Jackfruit, Mango, Grapes, Orange, ...)

Fruits	Friends (Pictograph) 😊	In numbers



# 5. Measures of Time

Let us observe the calendar

## 2013

### January

S	M	T	W	T	F	S
		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		

### February

S	M	T	W	T	F	S
					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		

### March

S	M	T	W	T	F	S
31					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

### April

S	M	T	W	T	F	S
	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				

### May

S	M	T	W	T	F	S
			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	

### June

S	M	T	W	T	F	S
30						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

### July

S	M	T	W	T	F	S
	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			

### August

S	M	T	W	T	F	S
				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

### September

S	M	T	W	T	F	S
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					

### October

S	M	T	W	T	F	S
		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		

### November

S	M	T	W	T	F	S
					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

### December

S	M	T	W	T	F	S
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				



Calendar shows days, weeks and months of a year.

- ★ There are 7 days in a week.
- ★ **SUNDAY** is the first day of the week.
- ★ **SATURDAY** is the last day of the week.



7 days = 1 week  
 4 weeks = 1 month  
 12 months = 1 year  
 365 days = 1 year

Let us say the days of the week .....

Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday

★ There are 12 months in a year.

They are

January	May	September
February	June	October
March	July	November
April	August	December

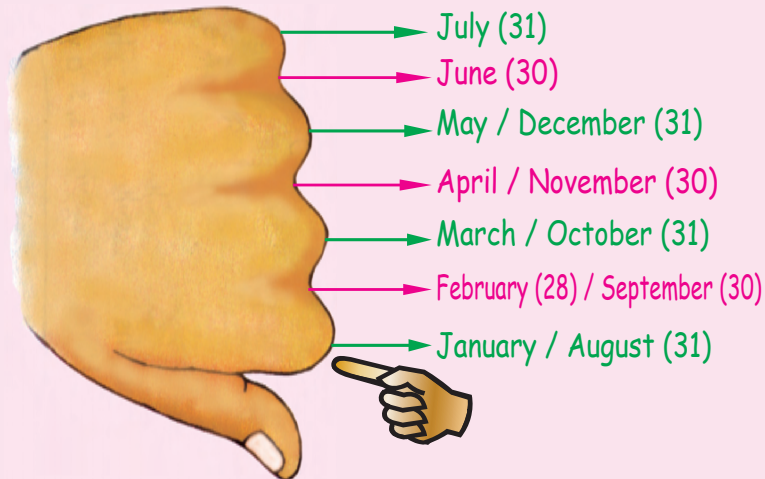
★ A year has 365 days

**ACTIVITY**

Write and practise the days of the week and months in a year

We see that all months do not have the same number of days. Let us remember this by doing this activity:

- Fold the fingers of your left hand.
- With the index finger of your right hand, touch the knuckles and gaps of the left hand fist alternately.
- At the same time, recite the names of all the 12 months



Months on the knuckles have **31** days and those in the gaps - **30** days (except February).

The leap year which falls once in 4 years has 29 days in February.

A leap year has 366 days.

- ★ Our school works from June to April.
- ★ We have our vacation during May.