

Department of School Education

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MATHEMATICS

STANDARD THREE

TERM III



Observe the face of the clock.

The face of the clock is marked with numerals (1 to 12).

The clock has two hands. One hand is long and the other is short.

The long hand is the minute hand. It shows minutes.

The short hand is the hour hand. It shows hours.

Clock tells us time

HEMATICS

When the minute hand is at 12, the hour hand tells the hour of the day.

The short hand of the clock is at 3. The long hand of the clock is at 12.

So the time is 3 o'clock.

We write it as 3:00

After 1 hour

In this clock, the hour hand is at 4. The minute hand is at 12. So, the time is 4 o'clock.

Note to the teacher

Give practice to the children with a model clock.





1) Tick the correct clock.



MATHEMATICS



HEMATICS

2) Tell the time and write your answer in the box.

3) Draw the hands in the following clocks for the given time.



Reading the minute

Look at the movement of the hands in a working clock.

The minute hand is much faster than the hour hand.

The minute hand crosses every small mark in the clock.

There are 60 such small marks and each one is called a minute

The minute hand takes 5 minutes to go from one number to the next. The hour hand takes 60 minutes to go from one number to the next.

1 hour = 60 minutes

ExampleLock at the pictures.Image: Colspan="3">Image: Colspan="3" Image: Colspan="" Image: Colspan="3" Image: Colspan="3" Image: Colspan="3" Imag



1) Count in steps of five minutes and write the time :







THEMATICS

2) Tell the time in the clock and write your answer in the box :



3) Draw the hands in the clock to show the time as given below :



Digital clock

MATHEMATICS

Observe the following.



What do you observe?

In digital clock there is no minute hand and hour hand.



2) Draw the hands of these clocks to show the time given in the digital clocks.



ATICS



Write a.m. or p.m. suitably to the events given below.

SS	
AT	
HE N	
IATH	
2	

1)

1.	Breakfast at 7:45	7 : 45 a.m.
2.	Lunch break at school at 12 : 15	
3.	Karate class in the school at 3:30	
4.	Morning prayer in the school at 8:30	
5.	School gets over at 4:00	
6.	The Sun rises at 5:00	
7.	The Sun sets at 6:00	
8.	Night 11 : 35	
9.	Night 2:30	
10.	Afternoon 1:30	

8

2) Write the time with a.m. or p.m. for your daily activities.











Collect the pictures of different types of clocks and watches.



II. Join the dots in the order of the months and colour the picture.



10

Reading the calendar

A calendar shows the days, weeks and months of a particular year. The days from 1st January to 31st December of a year is called a calendar year.



There are two types of calendar.





MATHEMATICS

Read the calendar and fill in the blanks.



Picture of hand. (The Knuckle rick)

It is an easy way to remember the days in every month.





Look at the picture and fill in the boxes





THEMATICS

Leap year :

why?

February 2012						
S	М	т	w	т	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			

February 2013 has 28 days,

February 2012 has 29 days.

February 2013						
S	М	т	w	т	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		

Because 2012 is the leap year. A leap year comes once in four years. In a leap year, February has 29 days.



MATHEMATICS

January 2014						
S	М	т	W	т	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	

Look at the above calendar and fill in the boxes:

- 1. Number of days in January 2014 is
- 2. The number of Sundays
- 3. The number of holidays
- 4. January 14th is on
- 5. Republic Day is on
- 6. On which day does the year begin





Look at the calendar 2013 and fill in the boxes.

- 1. Teachers' Day is on
- 2. Independence Day is on

Date & Month	Day

- 3. Republic Day is on
- 4. Gandhi Jayanthi is on
- 5. Children's Day is on
- Education Development
 Day is on



HEMATICS

Reading the date



Chronological order

Recording events in the order of happenings is called the "chronological order"

Look at the date of birth of the following leaders from a calendar and tabulate them in the chronological order.

> Kamarajar, Gandhiji, Arignar Anna, Dr. Ambedkar, Jawaharlal Nehru



EMATICS

MONEY

Money is a medium of exchange. We use money for buying goods. In India, the unit of money is rupee.



We use 'p' to write paise, 'Re' to write rupee and 'Rs' to write rupees. Also we use a dot (•) to separate rupees and paise.

Example

2

We express Rupees sixty and fifty paise in figure as Rs. 60.50

Our Indian government has introduced the symbol for denoting rupees as ₹. So Rs. 60.50 is written as ₹ 60.50



Denomination of rupees :

MATHEMATICS



Denomination of coins :







EMATICS

Note to the teacher

Tell the fact that,

- Coins of 1 paise, 2 paise, 5 paise, 10 paise, 20 paise are not in circulation.
 - Notes of Re. 1 and Rs. 2 are not in circulation



1. Match the following :

₹250•.	
₹ 650	
₹1000	

Do you know how we read and write Rupees and Paise?

0



Here we have 20 Rupees and 50 Paise.We read it as Rupees 20 and 50 Paise.We write this as Rs. 20.50 or ₹ 20.50



MATHEMATICS



3. Look at the picture :



Tick the correct denomination of the prices of the objects :

ltem	Price
Ball	
Book	
Pencil box	
Bag	
Shoes	
Shirt	
Pant	
Torch	
Teddy bear	
Bat	

MATHEMATICS

Addition and Subtraction in money

Addition and subtraction of money is done as in addition and subtraction of numbers.



Example

MATHEMATICS

Add ₹ 60.50 and ₹ 70.00.

1		
	₹ 60.50	Write rupees and paise in two columns.
+	₹ 70.00	Add paise and write the sum under paise.
	₹ 130 . 50	Add rupees and write the sum under rupees.

Subtract rupees 20 from rupees 40 and 50 paise.

	₹	40.50	Write rupees and paise in two columns.
_	₹	20.00	Subtract paise and write the answer under paise.
	₹	20.50	Subtract rupees and write the answer under rupees.



1) Addition ₹ 300 . ₹ 10.50 ₹ 70.50 10 ₹ 20.10 ₹ 200 . ₹ 15 . 00 40 +++2) Subtraction ₹ . 60 ₹ 450 . 70 90.50 80 ₹ 70.20 ₹ 30.50 ₹ 150 . 20 ₹

HEMATICS

Example

- 1) Raja bought a bottle of jam for ₹ 40.50 and a loaf of bread for₹ 20.25 . What was the total amount spent ?Cost of jam bottle=₹ 40.50Cost of a loaf of bread=₹ 20.25Total amount spent=₹ 60.75
- 2) Radha took ₹ 50.50 with her to the market. She bought some
chocolates for ₹ 20.25. How much money does she have now ?Total amount=₹ 50.50Amount spent=₹ 20.25Amount remaining=₹ 30.25











HEMATICS



Set up a mock shop in your class.

Bills and Rate charts

Bills help us to know the items of purchase, its prices, total amount paid, date of purchase, bill number and name of the shop.



Ram went to the bookshop and bought the following items. The following bill shows the rate of the articles and the total amount he paid.

Bill No : 767Guru Stationery slDate : 08.09.2010104. Main Road, Chen							
SI.	Particulars	Quantity	Rate	Amount			
110.				Rs.	р.		
1.	Ballpoint pen	10	5.00	50	00		
2.	Notebook	10	10.00	100	00		
3.	Sketch pen set	6	15.00	90	00		
4.	Crayons	2	20.00	40	00		
5.	Marker	4	15.00	60	00		
			Total	340	00		

Using the above bill fill in the blanks:

1.	Name of the shop	
2.	Bill number	
3.	Date of the bill	
4.	Total number of items purchased	
5.	Total amount of money paid	
6.	Rate of one marker pen	
7.	Cost of two crayons	
8.	Rate of one sketch pen set	
9.	Rate of one ballpoint pen	
10.	Cost of ten notebooks	



The following items are purchased from the supermarket. Find out the total amount to be paid.

SI.	ltems	Quantity	Rate	Amount	
No.	Komo	Quantity	Trate	Rs.	P.
1.	Jam bottle	2	30.00	60	00
2.	Honey bottle	3	15.00		
3.	Ghee packet	1	70.00		
4.	Cool drinks	2	40.00		
5.	Chocolate	4	6.00		



Prepare a rate chart for the above bills.

SI. No.	Particulars	Quantity	Rate

Project

Ask the students to collect different types of bills, group-wise and ask them to prepare an album.

FRACTIONAL NUMBERS

Here is a watermelon. It has been cut into two parts. Look at these two parts. Are these two parts equal?



No, the two parts of the watermelon are unequal.

Here is another watermelon. It has been cut into two parts. Observe these two parts. Are these two parts equal?





Yes, the two parts of the watermelon are equal.

One Half

5



One of them is shaded.

Each part is called one half.

It is written as $\frac{1}{2}$ and read as 'one half'.





Shade one-fourth of each figure.



Three-Fourth

What do you see in the following figures?



In each figure, there are four equal parts.

Three among them are shaded.

So, the shaded portion represents three fourth.





Fraction in part of collection

Consider the following example. There are four kites. Three are red kites. So three fourth of the kites are red. Then one fourth of the kites are green.





HEMATICS



Shade each collection as given below:





(a) Write the fraction which represents the shaded portion.



(b) Circle the correct fraction.



HEMATICS

(c) Write the fraction for the shaded object in each collection.





(d) Colour one half of each collection.



(e) Colour one-fourth of each collection.



(f) Colour three-fourth of each collection.



HEMATICS



- © Take a sheet of paper and cut it round as shown.
- © Fold it and form two halves.
- © Again fold it and form two halves as shown.
- © Unfold the sheet.

Look at the four quarters in the sheets.

Find out the fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ in the sheet.

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Numerator and Denominator

The numbers $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ are fractional numbers.



Fractions	Numerator	Denominator
<u>1</u> 2	1	2
<u>1</u> 4	1	4
$\frac{3}{4}$	3	4

Equivalent Fraction





In Figure (1), a circle is divided into two equal parts and one is coloured. The fraction of coloured portion is $\frac{1}{2}$.

MATHEMATICS

In Figure (2), the circle is divided into four equal parts and two are coloured.

The fraction of the coloured portion is $\frac{2}{4}$.

Can you see the coloured portion of two circles is the same?



PATTERNS

Patterns Around us

4

In everyday life, we see many patterns





Example





Pattern in geometrical shapes

There are two types of patterns. They are

Growing patterns

Repeated patterns

Growing patterns.

If some patterns and designs grow with straight lines and geometrical shapes, they are called **growing patterns**.





Continue the pattern :



Repeated Patterns

If some patterns and designs repeat with straight lines and geometrical shapes they are called **repeated patterns**.



MATHEMATICS



Pattern in numbers

We have made some patterns with pictures. We can make patterns with numbers too.

Growing patterns :

If some number patterns grow with odd and even numbers, they are called growing patterns

Example	1, 3, 5, 7,
	10, 20, 30,
	17, 19, 21,

Repeated patterns :

If some number patterns repeat with odd and even numbers, they are called repeated patterns





a) Complete the patterns:

6

a (6

MATHEMATICS



b) Match the following and complete the pattern :



c) Observe the pattern and complete the series :



d) Complete the following :













3 Balloons

5 Balloons

7 Balloons

__Balloons



MATHEMATICS

Note that one half of the shape is exactly like the other half. The line which divides the figure into two exact halves is called the **'line of symmetry'.**





- ★ Take a piece of paper.
- ★ Spill few drops of ink on the paper.
- ★ Now fold the paper and press it.
- ★ You will get a symmetric figure.



Example

Look at the following symmetrical letters. Observe the symmetrical lines in the letters.

How to divide the figure into two equal parts?



Make the students to create symmetrical patterns as given in the examples and display them in the class.



1) Colour the symmetrical figures :

Project

6

J.C

MATHEMATICS



2) Draw the lines of symmetry for the following figures :



3) Draw the other half of the figure to make it symmetrical :



ATHEMATICS

4) Classify whether the following are symmetrical patterns or not by putting \checkmark or \mathbf{x} in the box.

Example

Ľ,

6



STUDY OF DATA



Look at the above picture and fill in the required data:

- 1) Number of buildings
- 2) Number of birds
- 3) Number of lotus



5

4) Number of trees5) Number of ducks



6) Number of fish

Try to collect data for the following questions from your school.

- 1) Number of classrooms
- 2) Number of teachers
- 3) Number of male teachers
- 4) Number of female teachers
- 5) Number of trees, bikes, bicycles, toilets, taps.
- 6) Number of students in standards I, II, III, IV and V.



MATHEMATICS

"A survey is a method of collecting information through data gathering ,interview and questionnaire"



The following table shows the hours spent by friends in the playground during summer holidays.

DAY NAME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	TOTAL
Balu	2	1	2	1	
Raja	2	1	2	3	
Malar	1	3	3	2	
Varun	2	1	0	2	
Sandhya	3	2	1	1	

1. Who spent maximum time in the playground?

2. Who spent minimum time in the playground?

3. Who spent maximum time in the playground on Thursday?

4. How many hours did Sandya spend in the playground on Monday?



Ask your classmates about their favourite subjects and record them in the table. (Group work).

SI.no	Subjects	No.of.students
1.	Tamil	
2.	English	
3.	Maths	
4.	Science	
5.	Social science	
6.	Drawing	
7.	Music	
8.	Sports	
9.	Computer Science	
10.	General Knowledge	

Subject is liked by the most.

Tally marks

Before the invention of numbers, ancient people used fingers, knots and tally marks for counting. 'I' is called "tally mark". To make it easier to count, after 4 tally marks the fifth tally mark is entered as **LM1**

Number	Tally Marks
1	
2	
3	111
4	
5	LH1
6	LH11
7	
8	
9	
10	un m



The following statement shows the marks scored by III standard students in Mathematics.

40	60	48	52	58	43	58	40	60	52
52	58	48	40	60	40	40	53	52	43
43	52	40	48	53	60	60	52	40	48

Convert the above marks into the table using tally marks.

Marks	Tally Marks	No. of students
40	или	7
43		
48		
52		
53		
58		
60		
	Total	



The physical education master in a school recorded the height of the 20 students (in cm). The following statement shows the details.

100	118	110	118	118
118	100	100	118	100
110	100	118	110	110
100	110	100	100	110

Prepare a table with tally marks for the above data :

Height (cm)	Tally marks	Number of students
100		
110		
118		
	Total	

Pictographs

Symbols and pictures can be used to represent data. This helps us to study and understand data easily. This kind of representation is called **"PICTOGRAPH"**.



The following pictograph shows the sale of toys in a shop :



Look at the above pictograph and fill in the required data in the following boxes :

- a) The total number of toys sold
- b) The total number of balls sold
- c) Name the toy which are sold least in number
- d) Name the toy which are sold most in number
- e) The total number of buses sold













The following pictograph represents the number of apples sold at a shop in a week.

	= TO Apples	
Monday		
Tuesday		
Wednesday	6	
Thursday		
Friday	(
Saturday		

Answer the following questions from the data given in the above table.





Represent the following data in terms of pictograph.					
Standard	No.of Students		l Std		
I	15		II Std		
II	20		III Std		
III	25		IV Std		
IV	20		iv Stu		
V	30		V Std		



1) In a cricket selection match, 25 students participated. The number of runs scored by each student is given below.

30	30	32	40	45
32	30	40	45	40
32	32	32	30	40
45	40	45	45	40
30	30	32	32	30

Prepare	а	table	with	tally	marks	for
		the al	oove	data.		

Date:....

Runs	Tally marks	No. of students

The number of computers supplied to few schools is given below.







From the above pictograph, fill in the following data.

- a) The number of computers supplied to the school A
- b) The total number of computers supplied to all schools
- c) The number of computers supplied to the school D
- d) The number of computers supplied to the school B
- 3) Represent the number of students in each class of your school through pictograph.





'**I can, I did**' Student's Activity Record

Subject :

SI. No.	Date	Lesson No.	Topic of the Lesson	Activities	Remarks