

Lesson plan

Teacher Name :

Subject : Mathematics

Class : 5th Class

Unit : 1. Let's Recall, Month : JUNE

School Name :

No. of Periods : $26+26+4=56$



Name of the lesson	Topic	No. of periods required	Timeline for teaching		Any specific information
			from	to	
1. LET'S RE CALL	Recalling of Numbers	7+7	11-07-2022	18-07-2022	
	Addition of Numbers	4+4	19-07-2022	22-07-2022	
	Subtraction of numbers	5+5	23-07-2022	28-07-2022	
	Multiplication of Numbers	5+5	29-07-2022	03-08-2022	
	Division of numbers	4+4	04-08-2022	08-08-2022	
	Fractions	1+1	09-08-2022	---	
	Assignment and assessment	2	10-08-2022	11-08-2022	
	Project and revision	2	12-08-2022	13-08-2022	



Prior Concept/Skills: (Essential concepts and skills to be checked/bridged before teaching the current concept):



Note:-it is totally re call chapter . So there no need to check the previous knowledge. But ask question on 1 to 100 numbers

Learning Outcomes: (Select from SCERT Academic Calendar and Textbook)

The students will be able to :

1. Read and write numbers up to 5- digits.
2. Classify numbers into big –small, ascending- descending order.
3. Write Expand & shortened form of numbers.
4. Round off the given numbers to the nearest 1s/ 10s/100s/1000s.
5. Communicate face value & place value of each digit in given number.
6. Recall the process of addition, subtraction, multiplication and division.
6. Solve daily life problems related to addition-subtraction-multiplication-division
7. recall addition and subtraction of fractions



TEACHING LEARNING PROCESS –

Induction/Introduction (Generating interest, informing students about the outcomes and expectations for the lesson)

1. Ask students to answer the following question to create interest among them
2. 1.How many members are there in your family
3. 2.Have you ever travelled in train?
4. 3.What are your experiences?
5. 4.Do you know how to do addition, subtraction, multiplication and division of numbers?

Experience and Reflection

(Task/question that helps students explore the concept and connect with their life)

- Student can count the objects in and around his school and house.
- Student try to say something about his real-life experience regarding train journey.
- Student apply four fundamental operations in his daily life situations like purchase of articles, calculation of labor charges etc..
- Students can explain the importance of numbers in his daily life.



Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>1. railway station activity:-given in text book page no1 and 2</p> <p>2. Pass book activity: ask students to observe the pass book entries given in page no.4 and answer the questions given.</p> <p>3. numberline activity:-Draw a number line on black board & place any number on it. Ask the children to tell before & after numbers</p> <p>4. meals activity: given in page no 6 and 7</p> <p>5. ticket activity: given in page no 7 and 8</p> <p>6. chocolate activity : given in page no 9 and 10</p> <p>7. Write a word problem on the black board and discuss steps for the solving of word problem.</p>	<p>1. Students will observe the display board and discuss in groups.</p> <p>2. By showing spike abacus & place value chart find place values in the given number and finding the number in 1s/ 10s/100s/1000s place in the given number.</p> <p>3. By using spike –abacus find smallest & largest numbers upto 5 digits. By using number flash cards making all numbers to the given digits</p> <p>4. By using number line chart , find the round off value to nearest 1s/10s/ 100s/1000s.</p> <p>5. comparing all the heights/weights of children in the class, we can easily explain the concepts “ascending descending”, “biggest and smallest” & $>$, $<$, $=$</p> <p>6. conduct a group discussion entries of their bank pass</p> <p>7. Ask students to prepare the algorithm to solve the word problem</p>	<p>1. Solve the problems given in exercises</p> <p>2. Ask the children to write any four 1-/2/3/4/5 digit number on black board.</p> <p>3. Ask children to solve the problems given under Do these</p> <p>4. Students will solve the problems given in work book @ 1 per day</p>



Check for understanding questions:



Factual :

- Write the given numbers in words.
- Write the expanded form of the given number.
- Write the place value of the given digit in the given number.
- Write the predecessor and successor of the given number.
- Write given numbers in ascending and descending order.
- Do the following problems.

$4+4=$ $6+8=$ $65+98=$ $9-2=$ $65-24=$ $6*8=$ $12*5=$ $6/2=$ $8/2=$ $32/4=$ etc.....

- What is the numerator of $4/7$?
- $4/7+5/7=?$

Open ended questions / Critical thinking :

- Write any 5, two digit numbers which contains 9 in ones place?
- Express 45 as the sum of any two numbers?
- Express 100 as the difference of any two numbers?
- Express 80 as the product of any two numbers?
- Express 4 as the quotient of any two numbers?
- Make a word problem based on addition
- Make a word problem based on subtraction.
- Make a word problem based on multiplication.
- Make a word problem based on division
- Why do we celebrate June 5th as World Environment Day?

Student practice questions and activities : (Exercises from workbook / textbooks / black board)

1. Solve the problems given in exercises
2. Ask the children to write any four 1-/2/3/4/5 digit number on black board.
3. Ask children to solve the problems given under Do these
4. Students will solve the problems given in work book @ 1 per day

TLM (Digital + Print) :

- PPT
- Videos (do_3131105557447884801759, do_31307452686399078418090

do_31307452692499660819715

- charts
- abacus.
- beads.

Assessment:

- Collect the any newspaper and list out all the numbers observed in the paper. The write their expanded form

Signature of the Teacher

Signature of the Visiting Officer with Remarks

Signature of the Headmaster

Lesson plan

Teacher Name :
Subject : Mathematics
Class : 5th Class
Unit : 2. MY NUMBER WORLD, **Month** : JULY
School Name :
No. of Periods : 15+15+2+2

Name of the lesson	Topic	No. of periods required	Timeline for teaching		Any specific information
			from	to	
2. My Number world	1.Lakh, ten Lakh and crore	4+4			
	2. Hindu system of numeration	1+1			
	3. Place and face value of digits	2+2			
	4. Expanded and shortened form	2+2			

	5. Comparison of numbers	1+1			
	6. Ordering of numbers	1+1			
	7. International system of Numeration	2+2			
	8. Conversion of numbers	2+2			
	Assignment and assessment	2			
	Project and revision	2			

Prior Concept/Skills: (Essential concepts and skills to be checked/bridged before teaching the current concept):

1. Reading and writing of 5-digit number
2. Place and face value of digits in 5-digit numbers
3. Expanded and shortened form of 5-digit numbers
4. Comparison of 5-digit numbers
5. Ordering of 5- digit numbers
6. Formation of 3- digit numbers with given numbers
7. Predecessor and successor of a 5-digit numbers



Learning Outcomes: (Select from SCERT Academic Calendar and Textbook)

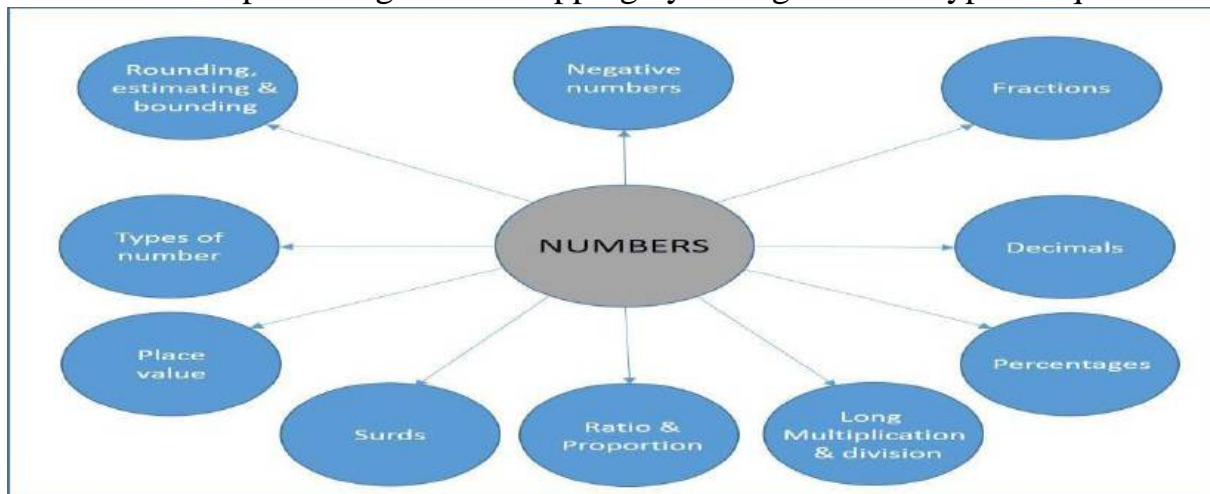
Child will be able to ...

1. Develop number sense in Indian system of numeration and as well as in international system of numeration.
2. Read and write the large numbers having up to 9-digits using both systems.
3. Rewrite the given expanded forms and standard forms
4. Recognize the period, place-value and face-value of any digit in a number.
5. Arrange a set of large numbers in ascending and descending orders.
6. Form numbers using given digits.
7. Compare any two numbers.

TEACHING LEARNING PROCESS –

Induction/Introduction (Generating interest, informing students about the outcomes and expectations for the lesson)

1. Introduce the topic through mind mapping by asking different types of questions.



2. Then revises about thousand and ten-thousand by asking different questions like..

- Children! see the calendar on the wall and tell me what is the date today?
- In the calendar, which year do you notice?
- Write the year on the black board?
- How many digits are there in the year?
- In which year were you born?
- Write the year on the black board.
- How many digits are there in your birth year?
- How much does a smart phone cost?
- Write the cost price on the black board.
- How many digits are there in the cost price?
- How many thousands make a ten thousand?
- How many hundreds make a ten thousand?

Experience and Reflection

(Task/question that helps students explore the concept and connect with their life)

- Student can count the objects in and around his school and house.
- Students can read large numbers on any display board and published in newspaper.
- Students can explain the importance of large numbers in his daily life situations like marketing, budget, expenditures, arranging the numbers in order....etc.



Explicit Teaching / Teacher Modelling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>1.I will asks the students to observe the picture at the page no 13 and interact on population.</p> <p>2.I will to go through the activity-1 at the page no 14 In text book</p> <p>3. I will introduce crores and ten-crores by asking question on population of some states with the help of chart (which are in Crores). For example</p> <p>*How many digits are there in population of state AP?</p> <p>* Ravi, come and count the number of digits.</p> <p>4. I will Display the chart of Indian system of numeration and ask some questions to get familiarize the places of Indian system of numeration.</p> <p>5.i will explain how a given number can be expressed in standard form using commas and how to write the given number in 3-expanded forms.</p>	<p>1.Divide the class into two groups and one group tells some number and another group represents the number on spike-abacus.</p> <p>2.Pupil will perform an activity on six- and seven-digit numbers, to write and read them.</p> <p>3.I will divide the class into 4 groups and distributes the collected news-paper cuttings containing 7-digit numbers and ask them to read and write them in words.</p> <p>4.Analyzing the given data Activity-2: Now students form into three groups. Group-1: Write ones, tens,ten-crores on the given slips.</p> <p>Group-2: Write O,T, H, Th, TTh, L, TL, C and TC on the given slips.</p> <p>Group-3: Write the numbers 1, 10, 100, 10,00,00,000 on slips.</p> <p>5.Students will participate in sankhyavadhanam activity</p> <p>6. I will give 5 or 6 numbers of 8 or 9 – digit numbers. Ask students to represent</p>	<p>1.I will writes some numbers on the black board and ask students to read and write in words individually Ex: 6,53,458 in words ‘ Six lakh, fifty three thousand, four hundred and fifty eight’</p> <p>2.the students to solve the questions in Exercise-1</p> <p>3. students will fill the blanks in text book page number-14 and 15</p> <p>4.I will give 5 or 6 numbers of 8 or 9 – digit numbers ask students to write in standard form using commas and expanded forms.</p> <p>5.Pupil will Write the Extended form of the following. A)21463582 b) 587003654 5.1 Write the following numerals in standard form using commas a) 52563496 b) 524721368 c) 201301200</p> <p>6.Teacher asks the students to go for exercise-2 and make them answer to all.</p>



6. I will explain about the spike-abacus with nine spikes or chart of spike abacus drawing and make the students to understand a number and writes its expanded forms.

7. I will introduce pre-concepts of place, place-value and face value with an activity

8. I will discuss about 2.4 of textbook and enable students to form the greatest and the smallest numbers with an activity.

9. I will explain how to compare two numbers with 7X7 grid activity

10.I will conduct activity on International system of numeration.

11.I will ask the students to open the text book, page no 29, then ask them to read the table, explain relations between both systems ask some more questions on relations.

them in spike-abacus drawings and let them write their expanded forms.

7.Students will do activity -3 (22page) in groups

8.i will ask the students to write the places, place-values and face-values of the digits in the number 63,52,47,125 in the given format. Digits in the number Place Place-value Face-value

9.Students will Form the greatest and the smallest numbers using the given digits when repetition allowed.

10.Pupil will Write place values for given number in International system of numeration.

11.i will give 5 or 6 numbers without commas and asks the children to write them in both standard and word forms, in both systems of numeration.

7.I will give 4 or 5 questions on formation of numbers with the given digits, in different types like allowing repetition and without allowing repetition and ask children to do individually

8.I will ask pupil to do the given sums given under do this and try this in their note book individually. Teacher dial

9.Students will solve all the problems in exercise-3.

10.i will give 5 or 6 numbers of 8 or 9 –digit numbers ask students to write individually in standard form using commas and word forms in both systems

11.Students will solve the questions given in exercise-4

4.Students will solve the problems given in work book @ 1 per day



Check for understanding questions:

Factual :

- Write the number Ten-lakh.
- How many zeros are there in ten-lakh?
- What is the greatest 7-digit number?
- How many digits are there in Crores number?
- How many digits are there in Ten-crores number?
- What are the places in Hindu-Arabic system of numeration?
- Express the following numbers in standard form using commas according to Hindu-Arabic system of numeration. a) 12547836 b) 201369427 c) 900060020
- Write the expanded forms of the following numbers. a) 25,41,56,273 b) 53,02,70,524 c) 60,87,20,020 d) 79,00,05,003
- Write the number 258147369 in standard form using commas, in Indian system?
- Write the number 123456789 in words according to Indian system. $4/7+5/7=?$
- What is the place of 5 in the number 458201?
- What is the place value of 9 in the number 459632514?
- What is the face-value of 1 in the number 412563254?

Open ended questions / Critical thinking :

- Write a 9-digit number, and read the number and also write in Words?
- Write all numbers between 27,35,297 and 27,35,304.
- Which number comes just after 9,99,999?
- Write the number in standard form for $5 \times 1,00,00,000 + 7 \times 10,00,000 + 0 + 7 \times 10,000 + 9 \times 1,000 + 3 \times 100 + 0 + 1 \times 1$.
- what is the difference between the place values of 5 in the number 254642361?
- What is the difference between the greatest and the smallest 5-digit numbers formed by the digits 3,9,6,4 and 7 without repetition?

- What is the sum of the greatest and the smallest 6-digit numbers formed by the digits 6,7,3 and 2 allowing repetition any digit any times?

Student practice questions and activities : (Exercises from workbook / textbooks / black board)

- 1.Solve the problems given in exercises
- 2.Ask the children to write any four 6-/7/8/9/10 digit number on black board.
3. Ask children to solve the problems given under Do these
- 4.Students will solve the problems given in work book @ 1 per day

TLM (Digital + Print) :

Number cards,	Charts	Abacus	Beads	Number ribbon
Place value charts	Sticks	Pebbles	Crayons	Chart of key words
population chart	Spike-abacus.	Flash cards with numbers and number-names		

Assessment:

- Draw the spike abacus representations for the following numbers. a) 520456341 b) 817529604
- What are the rules we know to compare the numbers?

Signature of the Teacher

Signature of the Visiting Officer with Remarks

Signature of the Headmaster

5th CLASS MATHEMATICS LESSON PLAN

MONTH : AUGUST Name of the teacher:

Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
3. ADDITIONS AND SUBTRACTIONS	1) Introduction of Additions	1	1			
	2) Process of Additions	1	1			
	3) Algorithm of Subtraction	1	1			
	4) Use of Addition and Subtraction	1	1			
	5) Addition and subtraction facts	1	1			
	6) Exercise -1	1	1			
	7) Properties of addition and Subtraction across zero	1	1			
	8) <u>Estimating</u> the result	1	1			
	9) Profit and loss	1	1			
	10) Exercise - 2& 3	1	1			
TOTAL		10	10	20		

PRIOR CONCEPTS / SKILLS	LEARNING OUTCOMES
<p>Children could</p> <ol style="list-style-type: none"> 1) do additions with 4-digit numbers. 2) estimate the sums of two 4-digit numbers. 3) solve the problems in daily life with the use of addition. 4) do subtractions up to 4-digit numbers. 5) estimate the difference between two 4-digit numbers. 6) solve the problems in daily life with the use of subtraction. 	<p>Pupils will be able to</p> <ol style="list-style-type: none"> 1) do additions and subtractions up to 6 digits. 2) know addition and subtraction facts. 3) solve real life problems involving addition and subtraction. 4) estimate the results. 5) understand the concepts of cost price and selling price. 6) solve problems on profit and loss. 7) check the addition rules and cumulative property.



1 st 45 minutes Period		2 nd 45 minutes Period		
Induction/Introduction :		✍ Workbook Activities		
✍ The teacher interacts with the learners by showing pictures in the textbook .				
Experience and Reflection : (Task/question that helps students explore the concept and connect with their life)				
✍ TASK : Collect the information about your village from your Panchayat office. And find out the sums.				
Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1	3.1 Introduction of Additions	✍ explaining the introduction using the textbook questions with picture	children think and discuss about the picture	
2	✍ TB P.No : 30,31 ✍ Workbook			
3	3.2 Process of Additions	✍ explaining the process of additions with carry forward	children do the editions GroupWise	Work sheet. 2
4	TB P.No : 32 ✍ Workbook			
5	3.3 Algorithm of Subtraction	✍ make the children to understand the algorithm of subtraction	children think and discuss	Work sheet. 3
6	✍ TB P.No : 33, 34 ✍ Workbook			
7	3.3 Algorithm of Subtraction Use of Addition and Subtraction	✍ explaining the use of addition and subtraction	<i>Project Work</i> Collect the information about their village from their Panchayat office. And find out the sums.	Work sheet.4 ,5
8	✍ TB P.No : 35, 36 ✍ Workbook			
9	3.4 Addition Subtraction facts	✍ explaining the addition and subtraction facts	children discuss and solve the problems GroupWise	Work sheet.6
10	✍ TB P.No : 37 ✍ Workbook			
11	Exercise -1 TB P.No : 38	✍ make the children to solve exercise 1 problems	children discuss and solve the problems	Work sheet.7
12	✍ Workbook			
13	3.5 Properties of addition	✍ explaining <i>Changing the order of the two addends does not change the total.</i>	Do this	Work sheet.8
14	3.6 Subtraction across zero ✍ TB P.No : 38, 39 ✍ Workbook			



15	3.7 Estimating the result ✍ TB P.No : 40, 41	✍ To estimate sum or difference, first round off each number to its nearest tens, hundreds.....		Work sheet.9
16	✍ Workbook			
17	3.8 Profit and loss TB P.No :42,43	✍ explaining the concept of profit and loss ,	children solve the problems	Work sheet. 10
18	✍ Workbook			
19	Exercise - 2& 3 TB P.No : 44	✍ explaining the excise 2 and 3	GroupWise children solve the problems	Work sheet.11
20	✍ Workbook			

CHECK FOR UNDERSTANDING

1.Factual Questions	2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities
<ul style="list-style-type: none"> ✍ $80,470 + 6,052 = ?$ ✍ $34,239 + 67,524 = ?$ ✍ $52,275 - 25,254 = ?$ ✍ $6,25,628 - 1,259 = ?$ 	<ul style="list-style-type: none"> ✍ The sum of two numbers is 70,350. If one of them is 28,682, find the other. ✍ What should be added to the sum of 5,46,569 and 1,34,266 to get 7,11,811? ✍ Find the difference between the smallest 6-digit number and the greatest 4-digit number. ✍ Rani and Priya add rupees 5892 altogether. Rani had twice as much as Priya. If she spent Rs 652 on shopping. How much money is remaining with her? 	All textbook exercises and worksheets .
Assessment	TLM	
Complete the Assessment in Workbook.	Print Material :	Digital Material :
	<ul style="list-style-type: none"> ❖ 5th Class Maths Magic and workbook ❖ 2023 - 24 Academic Calendar given by APSCERT ❖ 3,4,5 Classes Mathematics Teacher's Handbook. ❖ Picture cards, Dummy Currency notes ,Abacus ,Beads 	<ul style="list-style-type: none"> ❖ Diksha Videos ❖ google search

Signature of the Teacher

Signature of the Visiting Officer with Remarks

Signature of the Headmaster

5th CLASS MATHEMATICS LESSON PLAN

MONTH : **SEPTEMBER**

Name of the teacher:

Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
4. Multiplication And Division	1) Multiplication	1	1			
	2) Multiplication in different methods	1	1			
	3) Process of multiplication	1	1			
	4) Properties of multiplication	1	1			
	5) Product estimation	1	1			
	6) Steps in division	1	1			
	7) Division formula	1	1			
	8) Unitary method	1	1			
	9) Estimating the quotient	1	1			
	10) Multiplication and division forms	1	1			
TOTAL		10	10	20		

PRIOR CONCEPTS / SKILLS	LEARNING OUTCOMES
<p>Children could</p> <ol style="list-style-type: none"> 1) Do the multiplications of 2-digit/3-digit numbers by 1 - digit number/2-digit numbers 2) Do the divisions of 2-digit/3-digit numbers by 1 - digit number/2-digit numbers 	<p>Pupils will be able to</p> <ol style="list-style-type: none"> 1) multiply one number with another number. 2) divide one number with another number. 3) estimate products, quotients and verify by solving the problems. 4) understand the relation between multiplication and division. 5) frame word problems and solve.



Teaching Learning Process

1 st 45 minutes Period	2 nd 45 minutes Period
Induction/Introduction :	✍ Workbook Activities
✍ The teacher interacts with the learners by showing pictures in the textbook .	

Experience and Reflection : (Task/question that helps students explore the concept and connect with their life)

TASK :

The teacher helps the learners to count the sticks and make the bundles of 10 sticks each.

Teacher may change the objects instead of sticks everyday she/he may ask the learners to group the beads or seeds.

After grouping, make them understand the concept and give oral drilling

1 ten is 10

2 tens are 20

3 tens are 30

4 tens are 40 etc.

The teacher asks the learners to count the grids, colour the grids in check ruled books, counts in tens etc.

Learners should follow the instructions and do the exercises by themselves.

Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1 2	Multiplication TB.P.No:45,46 Workbook	✍ Expenses of a house activity ✍ By interacting on each picture teacher will make the learners to understand the multiplication	children think and discuss about the picture	Work sheet. 1
3 4	Multiplication in different methods TB.P.No:47 Workbook	✍ Different multiplication Methods ✍ The intention of the teacher is to inculcate the idea about different multiplication methods.	children do the multiplication GroupWise	Work sheet. 2
5 6	Process of multiplication TB.P.No:48,49 Workbook	✍ Multiply 4-digit number with 1-digit number activity ✍ The teacher interacts with the learners about the process of multiplication as given in the text.	children think and discuss	Work sheet. 3
7	Properties of multiplication	✍ Multiplication properties,		Work sheet.4



8	TB.P.No:50,51 Workbook			
9 10	Product estimation TB.P.No:52 Workbook	✍ Estimations of product	children solve the problems	Work sheet. 5, 6
11 12	Steps in division TB.P.No:53,54 Workbook	✍ Multiply 4-digit number with 1, 2-digit numbers		Work sheet.7
13 14	Division formula TB.P.No: Workbook	✍ Multiply 4-digit number with 2 and 3-digit numbers	children solve the problems	Work sheet.8
15 16	Unitary method TB.P.No:56 Workbook	✍ Unitary method		Work sheet.9
17 18	Estimating the quotient TB.P.No:57 Workbook	✍ Estimating the result	children solve the problems	Work sheet.10
19 20	Multiplication and division forms TB.P.No:58,59 Workbook	✍ Multiplication --- division	GroupWise children solve the problems	Work sheet.11

CHECK FOR UNDERSTANDING

1.Factual Questions	2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities
1) Do the followings a) 2835×3 b) 3746×5 c) 8271×93 2) Do the followings a) $97869 \div 6$ b) $56821 \div 9$ 3) The number to be multiplied is called as----- ? 4) Repeated ----- is known as multiplication. 5) $932 \div 31$ gives quotient..... and remainder	1) 50kgs of jaggery costs `2500. What is the cost of 15 kg jaggery? 2) If a family requires ` 3200 for 8 days, how much money does the family require for 4 days? 3) Product of two numbers is 27176. If one of them is 43, find the other number. 4) Product of two numbers is 27176. If one of them is 43, find the other number.	All textbook exercises and worksheets .



5) Prepare a word problem to the given division: $365 \div 7$





Assessment



TLM

Complete the Assessment in Workbook.

Print Material :

Digital Material :

-  5th Class Maths Magic and workbook
-  2023 - 24 Academic Calendar given by APSCERT
-  3,4,5 Classes Mathematics Teacher's Handbook.
-  Picture cards, Dummy Currency notes ,Abacus ,Beads

-  Diksha Videos
-  google search

Signature of the Teacher

Signature of the Visiting Officer with Remarks

Signature of the Headmaster

5th CLASS MATHEMATICS LESSON PLAN



MONTH : **OCTOBER**

Name of the teacher:

Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
5. Factors and Multiples	1) Understanding the divisibility rule of 2	1	1			
	2) Divisibility rules of 5 and 10	1	1			
	3) Process of multiplication	1	1			
	4) Divisibility rules of 3 and 9	1	1			
	5) Understanding divisibility rule of 6	1	1			
	6) Understanding divisibility rule of 4 and 8	1	1			
	7) Identifying the multiples of the number and also writing common multiples	1	1			
	8) Writing common multiples and finding LCM	1	1			
	9) Finding the factors to the given number	1	1			
	10) Finding the factors to the given number	1	1			
	11) Finding the prime and composite numbers	1	1			
	12) Prime factorization	1	1			
	13) Finding prime factors to the given numbers	1	1			
	14) Finding Common factors, representing common factors in Venn diagram	1	1			
	15) Finding HCF through common factors	1	1			
	16) Finding short methods in LCM	1	1			
	17) Finding short methods in HCF	1	1			
	18) Solving problems related to real life situations	1	1			
	19) LCM and HCF related working problems	1	1			
TOTAL		19	19	38		



PRIOR CONCEPTS / SKILLS	LEARNING OUTCOMES
<p>Children could</p> <ol style="list-style-type: none"> 1) Do the multiplications of 2-digit/3-digit numbers by 1 - digit number/2-digit numbers 2) Do the divisions of 2-digit/3-digit numbers by 1 - digit number/2-digit numbers 3) multiply one number with another number. 4) divide one number with another number. 5) estimate products, quotients and verify by solving the problems. 6) understand the relation between multiplication and division. 7) frame word problems and solve. 	<p>Pupils will be able to</p> <ol style="list-style-type: none"> 1) explain the divisibility from 1 to 10 numbers through divisibility rules and solve divisions with proper reasoning. 2) understand the concept of multiples and factors. 3) find the multiples and factors of a given number. 4) understand the concept of prime-numbers and composite numbers. 5) identify prime and composite numbers up to 100. 6) find the LCM and HCF. 7) solve the word problems involving LCM and HCF. 8) express a composite number as a product of prime number.

Teaching Learning Process	
1 st 45 minutes Period	2 nd 45 minutes Period
<p>Induction/Introduction :</p> <ul style="list-style-type: none"> • Write a large number on the board (e.g., 60546) and ask students, "Is this number divisible by 3?" • Take a quick poll or ask for students to respond with thumbs up or down. • Explain: "Today we are going to learn some special rules that will help us recognize divisibility. By the end of our lesson, you will know some shortcuts that will make it easy for you to determine if numbers, even huge numbers like this, are divisible by other numbers like 2, 3, 4...!" • Leave the number written on the board to revisit at the end of the lesson. 	<p> Workbook Activities</p>
<p> The teacher interacts with the learners by showing pictures in the textbook .</p>	
<p>Experience and Reflection : (Task/question that helps students explore the concept and connect with their life)</p>	



- **TASK :** Use a smaller number as the introductory number for students to consider such as 27,15,.....
- Provide a student-friendly definition of "divisibility" in students' home language (L1) and English (L2) and display it throughout the lesson.

Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1 2	Understanding the divisibility rule of 2 <i>Workbook Activity</i>	When a number is divided by another number leaving remainder zero, then we say that the first number is divisible by the second number. A number is divisible by 2 if the number is even (the last digit is 0, 2, 4, 6, or 8) Textbook page no. 61 <i>Activity :</i> <i>Give a few examples (i.e. 50, 21, 14, 896, 1358)</i> <i>Ask for student response</i> <i>Circle the last digit and point out if that digit is even the number is divisible by 2</i>	children think and discuss about the picture	Work sheet. 1
3 4	Divisibility rules of 5 and 10 <i>Workbook Activity</i>	A number is divisible by 5, if the digit at its ones place is either 0 or 5. The numbers which have zero at their ones place are exactly divisible by 10. Textbook page no. 62, 63	children do GroupWise	Work sheet. 1
5 6	Process of multiplication Exercise - 1 <i>Workbook Activity</i>	Textbook page no. 63	children think and discuss	Work sheet. 1
7 8	Divisibility rules of 3 and 9 <i>Workbook Activity</i>	Digital root: <ul style="list-style-type: none"> • The digital root of the number is the single digit that results from the continuous summation of the digits of the number. • If the digital root of the numbers is 3 or 6 or 9, 		Work sheet.2



		<ul style="list-style-type: none"> then the numbers are divisible by 3. If the digital root of the number is 9, then the number is exactly divisible by 9. Textbook page no. 64, 65.		
9 10	Understanding divisibility rule of 6 <i>Workbook Activity</i>	<i>The numbers which are divisible by 2 and 3, are also divisible by 6.</i> Textbook page no. 66	children solve the problems	Work sheet. 4
11 12	Understanding divisibility rule of 4 and 8 <i>Workbook Activity</i>	<i>If the last two digits [ones, tens] of a given number is exactly divisible by 4, the given number is also divisible by 4. If the last three digits of a numbers are divisible by 8, then the entire number is divisible by 8</i> Textbook page no. 66, 67.		Work sheet.3,5
13 14	Identifying the multiples of the number and also writing common multiples <i>Workbook Activity</i>	Textbook page no. 69, 70.	children solve the problems	Work sheet.6,7
15 16	Writing common multiples and finding LCM <i>Workbook Activity</i>	The smallest number of the common multiples of two or more numbers is called Least Common Multiple (LCM) of those numbers. Textbook page no. 71, 72.		Work sheet.9,10
17 18	Finding the factors to the given number <i>Workbook Activity</i>	The numbers which are multiplied together are called the factors of the product or the numbers which divide a given number exactly are called factors of the number. Textbook page no. 73, 74.	children solve the problems	Work sheet.11
19 20	Finding the factors to the given number <i>Workbook Activity</i>	Textbook page no. 75	GroupWise children solve the problems	Work sheet.13
21	Finding the prime and composite	A number which has one and itself as its factors is called a Prime number.	GroupWise children solve the	Worksheet.16



22	Numbers <i>Workbook Activity</i>	A number which has more than two factors is called a composite number. Textbook page no. 76	problems	
23 24	Prime factorization <i>Workbook Activity</i>	Any composite number can be expressed as a product of some prime-numbers. Textbook page no. 77	GroupWise children solve the problems	Worksheet.15
25 26	Finding prime factors to the given numbers <i>Workbook Activity</i>	Textbook page no. 78		Worksheet.16
27 28	Finding Common factors, representing common factors in Venn diagram <i>Workbook Activity</i>	Factors common to two or more numbers are known as the common factors of those numbers. Textbook page no. 79		Worksheet.15
29 30	Finding HCF through common factors <i>Workbook Activity</i>	The highest common factor among the common factors of two or more numbers is called Highest common factor (HCF or GCD). Textbook page no. 79, 80	GroupWise children solve the problems	Worksheet.14
31 32	Finding short methods in LCM <i>Workbook Activity</i>	<i>Prime-factorisation method to find LCM and HCF</i> Textbook page no. 81		Worksheet.18
33 34	Finding short methods in HCF <i>Workbook Activity</i>	Textbook page no. 82	GroupWise children solve the problems	Worksheet.19
35 36	Solving problems related to real life situations <i>Workbook Activity</i>	Textbook page no. 83, 84		Worksheet.20
37 38	LCM and HCF related working problems <i>Workbook Activity</i>	Textbook page no. 84, 85.	GroupWise children solve the problems	Worksheet.17



CHECK FOR UNDERSTANDING

1.Factual Questions	2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities
Write the first five common multiples of the following numbers. a) 5 and 6 (b) 7 and 14	<ol style="list-style-type: none"> 1) The number of prime factors of 105 are ? 2) How many times does 9 come in writing the number from one to 100 ? 3) 3 bells start ringing together at 8:30 AM if they ring after 4 minutes add more 5 minutes 6 minutes respectively each time the next time they will bring together at ? 4) 2 numbers are in the ratio 3:4 .Their lcm is 84 find the numbers 5) What is the minimum amount required to share equally among two, three, four, five, six, seven members without leaving any? 	All textbook exercises and worksheets .
Assessment	TLM	
Complete the Assessment in Workbook.	Print Material :	Digital Material :
	<ul style="list-style-type: none"> ✍ 5th Class Maths Magic and workbook ✍ 2023 - 24 Academic Calendar given by APSCERT ✍ 3,4,5 Classes Mathematics Teacher's Handbook. ✍ Picture cards, Dummy Currency notes ,Abacus ,Beads 	<ul style="list-style-type: none"> ✍ Diksha Videos ✍ google search
Signature of the Teacher	Signature of the Visiting Officer with Remarks	Signature of the Headmaster

5th CLASS MATHEMATICS LESSON PLAN

MONTH : **NOVEMBER**

Name of the teacher:

Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
6. GEOMETRY	1) Point	1	1			
	2) Line segments and Ray	1	1			
	3) Line	1	1			
	4) Angle	1	1			
	5) Types of angles	1	1			
	6) Measuring of Angles	1	1			
	7) Exercise	1	1			
	8) Open close Figures	1	1			
	9) Square, rectangle, triangle	1	1			
	10) Symmetry	1	1			
	11) $\frac{1}{4}$ and $\frac{1}{2}$ turn	1	1			
	12) Exercise -4	1	1			
	13) Patterns	1	1			
	14) Perimeter	1	1			
	15) Perimeter of Rectangle	1	1			
	16) Perimeter of Square	1	1			
	17) Area of rectangle	1	1			
	18) Area of square	1	1			
TOTAL		18	18	36		

PRIOR CONCEPTS/SKILLS

Children could

- ✎ identify the shapes of three-dimensional objects.
- ✎ find the edges, corners, and faces of the 3-D objects.

LEARNING OUTCOMES

Pupils will be able to

- 1) understand basic geometric concepts like point, line, line segment, ray...etc
- 2) identify angle, and types of angles.
- 3) understand the properties of open and closed figures.



<ul style="list-style-type: none"> ✍ know the shapes and properties of rectangle, square and triangle. ✍ calculate the area and perimeter of the objects using grid papers. ✍ know the concept of a circle. 	<ul style="list-style-type: none"> 4) identify symmetric figures in daily life. 5) understand about linear symmetry and rotational symmetry ($\frac{1}{2}$ turn and $\frac{1}{4}$ turn). 6) identify patterns in daily life. 7) measure the perimeter. 8) understand about area and can estimate.
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Teaching Learning Process	
1 st 45 minutes Period	2 nd 45 minutes Period
<p>Induction/Introduction :</p> <ul style="list-style-type: none"> • Prior to the lesson, cut out lines, line segments, and rays from colored construction paper. • Without identifying the diagrams by name, tell the similarities and differences between the diagrams. • Then, identify each diagram by name. • Tell your students that a ray has a point on one end, a line has no end points, and a line segment has two end points. 	<p>✍ Workbook Activities</p>
<p>Experience and Reflection : (Task/question that helps students explore the concept and connect with their life)</p> <ul style="list-style-type: none"> • Display the Summer Coloring Page, or something else of interest to your students, and ask them how much fencing they'll need to enclose this backyard. • Gather information about what they know about perimeter in real-world situations by asking them questions. For example, "What would the fence have to look like for us to measure the perimeter? What measurement would we use for a large backyard? Would the backyard have the same perimeter as a football field?" • Ask a student to read the student objective and define perimeter as the distance around a two-dimensional shape that has straight lines. • Have students brainstorm in pairs other realistic scenarios where it would be helpful to know the perimeter (e.g., fencing, framing 	



a picture, and construction).

- Tell students that perimeter is useful for many things, especially when you want to surround an object with something, or make sure you have enough space to fit an object. Explain that when someone wants to build a gate around their yard or their garden, they will need to know the perimeter to decide how much fencing they'll need.

Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1 2	Point Workbook Activity	Textbook activity page no. 86 Worksheet.1	children think and discuss about the picture	Work sheet. 1
3 4	Line segments and Ray Workbook Activity	Textbook activity page no. 87, 88, 89 Worksheet.2	children do the multiplicationGroupWise	Work sheet. 2
5 6	Line Workbook Activity	Text book activity page no. 90, 91, 92	children think and discuss	Work sheet. 2
7 8	Angle Workbook Activity	Text book activity page no. 93 Work sheet.3		Work sheet.3
9 10	Types of angles Workbook Activity	Text book activity page no. 94, 95 Work sheet.4	children solve the problems	Work sheet. 4
11 12	Measuring of Angles Workbook Activity	Text book activity page no. 96, 97 Work sheet.5		Work sheet.5
13 14	Exercise Workbook Activity	Text book activity page no. 98	children solve the problems	Work sheet.6
15 16	Open close Figures Workbook Activity	Text book activity page no. 99, 100		Work sheet.6
17 18	Square, rectangle, triangle Workbook Activity	Text book activity page no. 101, 102 Work sheet .7	children solve the problems	Work sheet.7
19 20	Symmetry Workbook Activity	Text book activity page no. 103, 104 Work sheet.8	GroupWise children solve the problems	Work sheet.8
21 22	$\frac{1}{4}$ and $\frac{1}{2}$ turn Workbook Activity	Text book activity page no. 105, 106	children solve the problems	Work sheet.9
23 24	Exercise -4 Workbook Activity	Text book activity page no. 107, 108	children solve the problems	




25 26	Patterns Workbook Activity	Text book activity page no. 109 Work sheet.10	children solve the problems	
27 28	Perimeter Workbook Activity	Text book activity page no. 110	children solve the problems	Work sheet.11
29 30	Perimeter of Rectangle Workbook Activity	Text book activity page no. 111	children solve the problems	Work sheet.12
31 32	Perimeter of Square Workbook Activity	Text book activity page no. 112		Work sheet.13
33 34	Area of rectangle Workbook Activity	Text book activity page no. 113, 114	children solve the problems	Work sheet.14
35 36	Area of square Workbook Activity	Text book activity page no. 115, 116	children solve the problems	Work sheet.15

CHECK FOR UNDERSTANDING

1.Factual Questions	2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities
<p>Write the names of the angle(acute, right, obtuse).</p> <p>a) 70° _____</p> <p>b) 40° _____</p> <p>c) 115° _____</p> <p>d) 90° _____</p> <p>e) 85° _____</p> <p>f) 150° _____</p>	<p>1) Write three letters of English alphabet that have only one line of symmetry and three letters of English alphabet that have two lines of symmetry.</p> <p>2) Give half a turn to the numbers from 0 to 9. Find which of them still look like same.</p> <p>3) Balu wants to build fence around his rectangular land whose length is 30 mt and</p> <p>4) breadth is 20 m. How much wire does he need to build fence to his land?</p>	<p>All textbook exercises and worksheets .</p>
Assessment	TLM	
Complete the Assessment in Workbook.	<p>Print Material :</p> <ul style="list-style-type: none"> 5th Class Maths Magic and workbook 2023 - 24 Academic Calendar given by APSCERT 3,4,5 Classes Mathematics Teacher's Handbook. 	<p>Digital Material :</p> <ul style="list-style-type: none"> Diksha Videos google search



 Picture cards, Dummy Currency notes ,Abacus ,Beads

Signature of the Teacher

Signature of the Visiting Officer with Remarks

Signature of the Headmaster



5th CLASS MATHEMATICS LESSON PLAN

MONTH : December		Name of the teacher:				
Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
7. DATA HANDLING	1. Tally marks	1	1			
	2. Preparing pictograph	1	1			
	3. Pictograph representation	1	1			
	4. Reading of Bar graph	1	1			
	5. Bar graph	1	1			
	TOTAL	5	5	10		

PRIOR CONCEPTS/SKILLS	LEARNING OUTCOMES
Children could reads data in different forms eg; tabular forms, pictographs and bar graphs.	Pupils will be able to <ul style="list-style-type: none"> collect information and interpret the data. read and draw pictograph. read and draw bar graph.

Teaching Learning Process	
1 st 45 minutes Period	2 nd 45 minutes Period
Induction/Introduction : The teacher interacts with the learners by showing pictures in the textbook .	Workbook Activities
Experience and Reflection : (Task/question that helps students explore the concept and connect with their life) TASK : <ul style="list-style-type: none"> • Explain to your students that they are going to learn about representing data, or information. • Ask your students to give an example of a time when they had to collect and use data. • Take data from your students by asking them to say what they brought for lunch or are planning to have for lunch. Write this on the board in categories. For example, the categories could be Carbohydrates, Proteins, Vitamins..etc. 	









Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1 2	Tally marks Workbook Activity	Answering the questions to the given data. Text book activity page no.117	Complete the table by using the above data	Work sheet. 1
3 4	Preparing pictograph Workbook Activity	Pictograph representation and answering the questions. Text book activity page no.118, 119	compare the previous data by using pictograph.	Work sheet. 2
5 6	Pictograph representation Workbook Activity	Preparation of pictograph and preparing the questionnaire. Text book activity page no.120	Prepare a pictograph to the given data and present it in the class room.	Work sheet. 3
7 8	Reading of Bar graph Workbook Activity	Preparing the bar graph and answering the questions. Text book activity page no.121	can represent the data in both horizontal and vertical bars.	Work sheet.4
9 10	Bar graph Workbook Activity	Preparing the bar graph and answering the questions. Text book activity page no.122, 123	Prepare a bar graph.	Work sheet.5

CHECK FOR UNDERSTANDING

1.Factual Questions		2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities										
Prepare a pictograph to the given data and present it in the class room. <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Fruits</th> <th>Mango</th> <th>Banana</th> <th>Orange</th> <th>Apple</th> </tr> </thead> <tbody> <tr> <td>Number of Fruits</td> <td>20</td> <td>30</td> <td>50</td> <td>20</td> </tr> </tbody> </table>		Fruits	Mango	Banana	Orange	Apple	Number of Fruits	20	30	50	20	Rajani wants to compare her height with her four friends. She measured their heights and made a note like this. Rajani – 120 cm , Rafi – 160 cm ,Ramesh – 140 cm, Rosy – 140 cm ,Rani – 160 cm Help her to draw bar diagram.	All textbook exercises and worksheets.
Fruits	Mango	Banana	Orange	Apple									
Number of Fruits	20	30	50	20									
Assessment		TLM											
Complete the Assessment in	Print Material :	Digital Material :											















<p>Workbook.</p>	<ul style="list-style-type: none">  5th Class Maths Magic and workbook  2023 – 24 Academic Calendar given by APSCERT  3,4,5 Classes Mathematics Teacher's Handbook.  Picture cards, Dummy Currency notes ,Abacus ,Beads 	<ul style="list-style-type: none">  Diksha Videos  google search
<p>Signature of the Teacher</p>	<p>Signature of the Visiting Officer with Remarks</p>	<p>Signature of the Headmaster</p>







5th CLASS MATHEMATICS LESSON PLAN



MONTH : JANUARY/FEBRUARY Name of the teacher:

Name of the Lesson	Topic	No. of Periods Required For		TIMELINE FOR TEACHING		ANY SPECIFIC INFORMATION
		TB	WB	FROM	TO	
8. FRACTIONS	1. Understanding the proper fraction	1	1			
	2. Understanding mixed fraction	1	1			
	3. Understanding improper fraction	1	1			
	4. Understanding equivalent fraction	1	1			
	5. Simplest form of the given fraction	1	1			
	6. Like and unlike Fractions	1	1			
	7. Addition of like Fractions	1	1			
	8. Addition of unlike fractions	1	1			
	9. Subtraction of like fractions	1	1			
	10. Subtraction of unlike fractions	1	1			
	11. Introduction of decimal fractions	1	1			
	12. Reading and writing of decimal forms and its place values	1	1			
TOTAL		12	12	24		

PRIOR CONCEPTS/SKILLS	LEARNING OUTCOMES
<p>Children could</p> <ul style="list-style-type: none">  identify and write half and quarter of a whole.  divide a given object or group of objects into number of equal parts.  recognize a fraction and its parts.  express the fraction as a part of a whole and a part of a group.  identify and compare unit fractions and like fractions.  perform additions and subtractions over like fractions. 	<p>Pupils will be able to</p> <ul style="list-style-type: none">  recognize 3 types of fractions (Proper, improper and mixed).  write equivalent fractions for a given fraction.  write the fraction in simplest form.  classify like and unlike fractions.  add like fractions among the group of like fractions and unlike fractions.  subtract like fractions among the group of like fractions and unlike fractions.



<ul style="list-style-type: none">  apply the knowledge of fractions in daily life. 	<ul style="list-style-type: none">  understand decimal fractions.  solve daily life problems using fractions.  express an improper fraction into a mixed fraction.
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Teaching Learning Process				
1 st 45 minutes Period			2 nd 45 minutes Period	
Induction/Introduction :			 Workbook Activities	
 The teacher interacts with the learners by showing pictures in the textbook .				
Experience and Reflection : (Task/question that helps students explore the concept and connect with their life)				
TASK :				
<ul style="list-style-type: none"> • Have students get out paper and pencil. Ask students if they know how to write fractions. • Each student should write their idea of a fraction on their paper hold it up. • Choose a correctly written fraction to show to the class. • Discuss: <ul style="list-style-type: none"> ○ When have you seen or heard fractions used? ○ What information could you give with fractions? ○ What is the difference between a numerator and denominator? 				
Period No	Topic	Explicit Teaching/Teacher Modelling	Group Work	Independent Work
1	Understanding the proper fraction	Understanding the “proper fraction” by playing “Ashta chemma” game. Textbook page no. 125, 126	children think and discuss about the picture	Work sheet. 1
2	Workbook Activity			
3	Understanding mixed fraction	Understanding mixed fraction by distributing biscuits equally. Filling the table in the Textbook page no. 127	children do the multiplication GroupWise	Work sheet. 2
4	Workbook Activity			
5	Understanding improper fraction	Making the students to observe the examples and converting improper fractions into mixed fractions with the examples 1, 2	children think and discuss	Work sheet. 3









6	Workbook Activity	& 3 in the textbook. Textbook page no. 128, 129		
7	Understanding equivalent fraction	Text Pg No.130, 131		Work sheet.4
8	Workbook Activity			
9	Simplest form of the given fraction	Simplest form of fraction Textbook page no. 132, 133.	children solve the problems	Work sheet. 5,
10	Workbook Activity			
11	Like and unlike Fractions	Textbook activities page No. 134		Work sheet.6
12	Workbook Activity			
13	Addition of like Fractions	Making addition by using fraction strips	children solve the problems	Work sheet.7
14	Workbook Activity	Text book page no. 135, 136.		
15	Addition of unlike fractions	Making addition by using LCM. Textbook page no. 137, 138		Work sheet.8
16	Workbook Activity			
17	Subtraction of like fractions	Subtracting the fractions by using fraction strips	children solve the problems	Work sheet.9
18	Workbook Activity	Textbook page no. 139, 140.		
19	Subtraction of unlike fractions	Subtracting the fractions by LCM. Textbook page no. 141, 142	GroupWise children solve the problems	Work sheet.10
20	Workbook Activity			
21	Introduction of decimal fractions	Examples from the text. Textbook page no. 143,		Work sheet no.11
22	Workbook Activity			
23	Reading and writing of decimal forms and its place values	Reading the decimal forms. Textbook page no. 144		Worksheet no.12
24	Workbook Activity			

CHECK FOR UNDERSTANDING

1.Factual Questions	2.Open Ended/Critical Thinking	3.Student Practice Questions and Activities
Find the sum. (1) $1/5 + 2/5$ (2) $3/8 + 1/8$	<ul style="list-style-type: none"> ❖ Narasamma ate $1/3$ rd part of bread on Monday, $1/4$th part of the bread on Tuesday. Then how much part of the bread she ate on two days ? ❖ Rakesh has $3/4$th part of a glass with milk. 	All textbook exercises and worksheets .



	He drank $\frac{1}{8}$ th part of glass. Now how much part of milk is remained in the glass?	
Assessment	TLM	
Complete the Assessment in Workbook.	Print Material :	Digital Material :
	<ul style="list-style-type: none">  5th Class Maths Magic and workbook  2023 – 24 Academic Calendar given by APSCERT  3,4,5 Classes Mathematics Teacher's Handbook.  Pictures of Fractions 	<ul style="list-style-type: none">  Diksha Videos  google search
Signature of the Teacher	Signature of the Visiting Officer with Remarks	Signature of the Headmaster

