III Sem

CERTIFICATE

Mathematics

This is to certify that Mr./Mrs/Kum.....

Class No:.....Regd.No.....of SMS&SMCMR College of Education visited our institution and conducted the required activities / collected the required data regarding to.....

practicum as a part of B.Ed. Course work stipulated by the Government of Andhra Pradesh and approved by Acharya Nagarjuna University.

Signature of the Concerned Teacher

Name:

Signature of the Head of the Institution:

Name:

Seal:

This is to certify that Mr./Mrs/Kum.....

Class No:.....Regd.No:.....has completed the required activities regarding to.....practicum towards the fulfillment of B.Ed. Course work stipulated by the Government of Andhra Pradesh and approved by Achraya Nagarjuna University.

This record is assessed.

Lecturer in-charge
SMS&SMCMR College of Education.
GUNTUR.

Subject :- Mathematics.

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Macro Teaching Lesson Plan - I

Priliminary Information:-

Name of the Student Teacher :- R. Anusha

Subject :- Mathematics

Class :- VI

Unit :- Knowing Our Numbers

Topic :- Finding greatest & smallest numbers of the group of numbers

Time :- 45 min

Aim:-

Understanding the Content:- Students will understand the concept of greatest and the smallest among the group of numbers.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction	Teacher:- Good Morning, Students. Students:- Good Morning, Ma'am.		
*Objectives of Pre-Concepts	Teacher:- Uma & Latha have entered Class VI. On the first day of the school, their maths teacher discussed about the population of India, our state & district according to the population census counted recently. So, Students, we are discussing about ——— ? Students:- Numbers ie, in thousands Teacher:- Well, yes, but now we will discuss about Lakhs, Ten Lakhs and etc.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Announcement of the topic	* Children, Today we are going to learn the greatest & the smallest number among the group of numbers, as well as numbers in lakhs, Ten lakhs etc.	* Name of the Topic :- The greatest & the smallest numbers among the group of numbers	Black Board.
* Demonstration and Discussion → Reading	* When two numbers are given we should compare the ones place digits, tens place digit, hundreds place digits etc		
→ Key Words	* Thousand * Lakh * Greatest number * Smallest number	* Thousand. * Lakh. * Greatest Number. * Smallest Number.	
→ Activities for Understanding the Concept.	* 3845, 485, 34, 13845 Now we must compare each number with the other number to find out Greatest and Smallest numbers.		

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic	* Teacher will be asking students few questions about the topic & can estimate how much they have understood the concept.		
* few Examples (or) Questions.	Example 1:- The no. of people who visited games village during common wealth games in New Delhi for the first four days was recorded as 15,290; 14,181; 14,235 & 10,578. find out what is the number which is greatest and smallest in total 4 days visited by the people.	Solution:- No. of people visited common wealth games in New Delhi for the first four days are = 15,290; 14,181; 14,235; 10,578; When each num. is compared with other number, The greatest number is = 15,290. The smallest num. is = 10,578.	

Steps/Content	Teaching learning Activities	B.B.W.	T.L.M.
	Example 2:- In a village, no. of men are 7,450, no. of women are 3,500, no. of children are 3,950. Now, Who are more and less in population in total in that village?	Solution:- No. of men = 7,450 No. of women = 3,500 No. of children = 3,950 By comparing each number with other number, we can say that :- Men are more and women are less in population.	
*Conclusion:	Students today we have seen the greatest and the smallest number of the group of numbers given. Also few questions were asked by teacher & answered by students at the end of the class.		

Macro Teaching Lesson Plan - II

Priliminary Information:-

Name of the Student - Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Integers

Topic :- Multiplication of +ve & -ve integers.

Time :- 45 min

Aim:-

Understanding the Content:- Students will be able to understand the concepts of multiplication with few examples with Integers.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction:- * Objectives of Pre- Concepts.	Good Morning Students. Teacher:- Children, Which numbers are called as Integers? Students:- The numbers which are having positive and negative numbers are known as Integers. Teacher:- Good. Now, Can we do Addition & Subtraction of the Integers? Students:- Yes, we can do both. Teacher:- Good, Now, Can we do Multiplication of Integers.		

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Annoucement of the topic	* Children, Today we are going to learn the Concept of Multiplication with Integers.	Name of the Topic :- Multiplication with Integers.	
* Demonstration and Discussion → Reading → KeyWords	* Definition :- The positive & negetive numbers used for multipling is known as Multiplication with Integers. * Integers * Pattern * Number line * Multiplication	* The positive & negetive numbers used for Multipling. * Number line * Integers * Pattern * Multiplication	Black Board.
* Activities for Understanding the Concept.	1) Multiplication of two -ve integers :- If we multiply two -ve integers then the product of those will be +ve. ex :- $(-2)\times(-3) = \underline{\underline{+6}}$ 2) Multiplication of two +ve integers :- If we multiply two +ve integers	1) $(-2)\times(-3)$ $= \underline{\underline{+6}}$	* Black Board * Multiplication Tables.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	then the product of those will be +ve. ex:- $(+2) \times (+3) = \underline{\underline{+6}}$	(2) $(+2) \times (+3)$ $= (+6)$	*Black Board *Multiplication Tables.
*Discussion on the topic.	*Teacher will be asking students few questions about the topic and can estimate how much students have understood.		
*few Examples (or) Questions	<u>Example 1</u>:- In a class test containing 10 questions, '3' marks are awarded for every correct answer & (-1) mark is for every incorrect answer and '0' for questions not attempted. (a) Gopi gets 5 correct & 5 incorrect answers. What is his Score?	<u>Solution</u>:- (a) No. of correct answers written by Gopi = 5 Each correct answer is awarded = 3 marks Total marks for correct answers is $= 5 \times 3$ $= 15$ marks Now, No. of incorrect answers written = 5	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		Each incorrect answer is awarded = -1 marks Total marks $7(+5) \times (-1)$ $= -5$ marks. Now, Overall Total marks obtained by him = Correct marks + incorrect marks $= 15 + (-5)$ $= 15 - 5$ $= 10$ Marks	* Black Board * Multiplication Tables.
	(b) Reshma gets 7 correct answers & 3 incorrect answers. What is her score?	Solution (b):- No. of correct answers & marks given to them $= 7 \times 3 = 21$ marks	

Steps/Content	Teaching & learning Activities	B.B.W.	T.L.M.
	(c) Rashmi gets 3 correct & 4 incorrect answers out of Seven questions she attempts. What is her score?	No. of incorrect answers & marks given to them. $= 3 \times (-1) = -3$ marks. Total Marks secured by Reshma $= 21 + (-3)$ $= 21 - 3$ $= 18$ marks. Solution:- (c) No. of correct answers & marks given to them $= 3 \times 3 = 9$ marks. No. of incorrect answers & marks given to them $= 4 \times (-1) = -4$ marks. Total marks secured by Rashmi $= (+9) + (-4)$ $= 9 - 4$ $= 5$ marks.	* Black Board * Multiplication Tables.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Conclusion	Students today we have seen the multi-plication of two positive & two negetive integers with few examples. Also they were asked few questions and given few problems to solve in Classroom.		

Macro Teaching Lesson Plan - III

Priliminary Information:-

Name of the Student - Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Integers

Topic :- Division of positive & negetive integers.

Time :- 45 min

Aim :-

Understanding the Content :- Students will be able to understand the concept of division with few examples with Integers.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction *Objectives of Pre-Concepts:-	Good Morning Children. Teacher :- Students till now we saw how to do addition, subtraction and also Multiplication of Integers.! Students :- Yes, Ma'am. Teacher :- Well, Students, is it possible to do division of Integers	*Name of the topic :- Division with Integers.	
*Annoucement of the Topic	* Students, Today we are going to learn the concept of Division with Integers.		
* Demonstration and Discussion →Reading	* Definition :- ↓ Division by Zero :- for any integer a, $a \div 0$ is not defined, but $0 \div a = 0$ for $a \neq 0$	*↓ for any integer a, $a \div 0$ is not defined, but $0 \div a = 0$ for $a \neq 0$ is Division by Zero	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Keywords * Activities for Understanding the Concept.	2) Division by 1:- In general, for any integer a, $a \div 1 = a$. * Divisibility. * Divide * Integer * Division by Zero:- Like whole numbers, any integer divided by zero, is meaningless & zero divided by a non-zero integer is equal to zero. ex:- $5 \div 0$ is not defined. * Division by 1:- When we divide a whole number by 1, it gives the same whole number. ex:- 1) $(-8) \div 1$ $= -8$ 2) $11 \div (-1) = -11$	* In general, for any integer a, $a \div 1 = a$ is division by 1. * Divisibility * Divide * Integer. $= 5 \div 0$ = is not defined * $= (-8) \div 1$ $= -8$. * $(11) \div (-1)$ $= -11$.	Black Board Black Board

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic.	* Teacher will be asking students few questions about the topic and can estimate how much students have understood.		
* few Examples (or) Questions.	Example:- A shope keeper earns a profit of 1/- by selling one pen and incurs a loss of 40 paise per pencil while selling pencils of her old stock. (a) In a particular month she incurs a loss of 5/-. In this period, she sold 45 pens. How many pencils did she sell in this period?		

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.

<u>Solution</u> :- (a) Profit earned by selling one pen = 1/-

Profit earned by selling 45 pens = 45, which we denote by +45.

Total loss given = 5/- which we denote by (-5)

Profit earned + Loss incurred = Total loss.

∴ Loss incurred = Total loss − Profit earned.

$= (-5) - (45) = (-50)$

$= -5000$ paise

Loss incurred by selling one pencil = 40p. which we write as −40 p.

∴ No. of pencils sold $= (-5000) \div (-40)$

$= 125$ pencils

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	(b) In the next month she earns neither profit nor loss. If she sold 70 pens, how many pencils did she sell?	Solution:- (b) In the next month there is neither profit (nor) loss. So, the profit earned + loss incurred = 0 ie, Profit earned = -Loss incurred. Now, profit earned by selling 70 pens = 70/- Hence, loss incurred by selling pencils = -70/- (or) -7000 paise Total number of pencils sold = (-7000) ÷ (-40) = 175 pencils	* black Board * Multiplication tably.
Conclusion:-	Students today we have seen the division with few examples. Also they were asked few questions & given few problems to solve in classroom.		

Macro Teaching Lesson Plan - IV

Preliminary Information:-

Name of the Students Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Fractions, Decimals, & Rational Numbers.

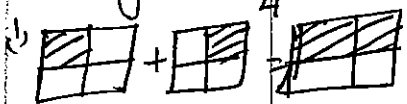
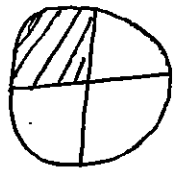
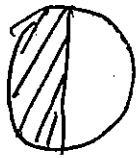
Topic :- Multiplication of fractions.

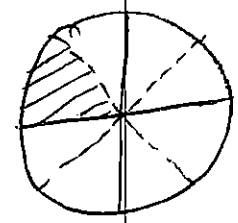
Time :- 45 min

Aim :-

Understanding the Content :- Students will be able to understand the concept of Multiplication of fractions with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction *Objectives of Pre-Concepts	Good Morning Students Teacher :- Students, till now, we saw addition & subtraction of fractions in the previous classes. Well, is it possible to do multiplication of fractions. Students :- ----		
*Annoucement of the Topic	* Today, we are going to learn the concept of Multiplication of Fractions.	*Name of the topic :- Multiplication of fractions.	
* Demonstration and Discussion → Reading	* To represent multiplication of fraction we use $\frac{\text{Product of numerators}}{\text{Product of denominators}}$	⇒ $\frac{\text{Product of numerators}}{\text{Product of denominators}}$.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Key Words	* Fractions * Denominators * Numerators	* Fractions * Denominators * Numerators.	
* Activities for Understanding the Concept.	* Multiplication of a fraction by a whole number:- When we multiply whole numbers we know we are repeatedly adding a number. Thus, when we say $2 \times \frac{1}{4}$ it means adding $\frac{1}{4}$ twice (or) 2 times $\frac{1}{4}$ * Multiplication of a fraction with a fraction:- There are two images. They are represented as $\frac{1}{2}$ of $\frac{1}{4}$ Now, when we divide the first picture remaining parts into two equal parts, then we get total of 8 equal parts.	* When we add $\frac{1}{4}$ two times (or) $\frac{1}{4}$ twice we say $2 \times \frac{1}{4}$.   $= 1/4$  $= \frac{1}{2}$	* Black Board * Maths Lab * Smart Board

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	So it is $\frac{1}{8}$ of the whole. Thus, $\frac{1}{2}$ of $\frac{1}{4} = \frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$		
* Discussion on the topic.	* Teacher will be asking students few questions about the topic & can estimate how much students have understood.		
* Few Examples (or) Questions.	<u>Example</u>:- Narendra reads $\frac{1}{4}$ of a short novel in 1 hour. What part of the book will he have read in $2\frac{1}{2}$ hours?	<u>Solution</u> :- The part of the novel read by Narendra in 1 hour $= \frac{1}{4}$ So the part of the novel read by him in $2\frac{1}{2}$ hr. $= 2\frac{1}{2} \times \frac{1}{4}$ $= \frac{5}{2} \times \frac{1}{4}$ $= \frac{5}{8}$	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		So Narendra would read $\frac{5}{8}$ part of the novel in $2\frac{1}{2}$ hours.	
	Example 2:- In a family of four persons 15 chapaties were consumed in a day. $\frac{1}{5}$ of the chapaties were consumed by the mother and $\frac{3}{5}$ were consumed by the children & the remaining were eaten by the father. (a) How many chapaties were eaten by the mother?	Solution:- Total no. of chapaties = 15 (a) No. of chapaties eaten by mother $= \frac{1}{5} \times 15$ $= 3$ chapaties.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	(b) How many chapaties were eaten by the children?	(b) Solution :- $\frac{3}{5}$ of the total ~~ch~~number is eaten by children $= \frac{3}{5} \times 15$ $= 9$ chapaties.	
	(c) What fraction of the total chapaties has been eaten by the father?	(c) Solution :- The chapaties left for father are $= 15 - 3 - 9$ $= 3$ chapaties. Fraction of chapaties eaten by father $= \frac{3}{15} = \frac{1}{5}$.	
*Conclusion	Students, today we have seen the multiplication of fractions with few examples. Also students were asked few questions regarding the concept & given few problems to solve.		

Macro Teaching Lesson Plan - V

Priliminary Information:-

Name of the Student Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Fractions, Decimals and Rational numbers.

Topic :- Division of fractions.

Time :- 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Division of fractions with few examples.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction. * Objectives of Pre-Concepts.	Good Morning Children Teacher:- Students we have the knowledge of fractions and also multiplication of fractions. Well, students is it possible to do division of fractions. Students:- - - - -		
* Annouacement of the Topic	* Children we are going to learn the Concept of Division of fractions.	Name of the topic:- Division of fractions.	

Steps/Content	Teaching & Learning Activities	B.B.W.	R.L.M.
* Demonstration and Discussion → Reading	* While dividing a whole number with a fraction, we multiply the whole number with the reciprocal of that fraction. ex: $3 \div \frac{1}{2} = 6$	$3 \div \frac{1}{2} = 6$	
→ Key Words.	* Reciprocal * Divisible	* Reciprocal * Divisible	Black Board
* Activities for Understanding the Concept.	* Division of whole number by a fraction :- When we divide a whole number with a fraction we get :- $\frac{1}{2} \div 3 = 6$. * Division of Reciprocal of a friction Dividing by a fraction is equivalent to multiplying the number by the reciprocal of that fraction.	* $\frac{1}{2} \div 3 = 6$ $\Rightarrow 3 \div \frac{1}{4}$ $= 3 \times \frac{4}{1}$ $= 12$	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic.	* Teacher will be asking students few questions about the topic and can estimate how much students have understood.		
* few Examples (or) Questions.	Example :- An empty swimming pool is to be filled up to $\frac{9}{11}$ of its capacity. A pump takes half an hour to fill $\frac{3}{10}$ of the pool, how long will it take to		

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	fill $\frac{9}{10}$ of the pool?	Solution:- We need to find how many $\frac{3}{10}$'s are there in $\frac{9}{10}$, $\Rightarrow \frac{9}{10} \div \frac{3}{10}$ $\Rightarrow \frac{9}{\cancel{10}} \times \frac{\cancel{10}}{3}$ $= \frac{\cancel{9}^{3}}{\cancel{3}_{1}}$ $= 3$. Thus, it would take 3 half an hours, (or) $1\frac{1}{2}$ hours to fill the pool to its $\frac{9}{10}$.	
* Conclusion	Students today we have seen the division of fractions with few examples. Also they were asked few questions & given few problems to solve in classroom.		

Macro Teaching Lesson Plan- VII

Priliminary Information:-

Name of the Student - Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Fractions Decimals and Rational Numbers.

Topic :- Multiplication of Decimal numbers. or fractions

Time :- 45 min.

Aim:-

Understanding the content:- Students will be able to understand the concept of Multiplication of Decimal numbers with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
*Introduction *Objectives of Pre-Concepts	Good Morning, Students. Students till now we saw how to do addition and Subtraction using Decimal numbers Students:- Yes malam Teacher:- Well, is it possible to do multiplication using Decimal numbers.		
*Announcement of the Topic.	* Today, we are going to learn the concept of Multiplication Using Decimal Numbers.	*Name of the Topic:- Multiplication using Decimal Numbers.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Demonstration and Discussion → Reading	* A Decimal Number is a number with a decimal point in it, like :- 1.5, 0.6, 3.14. etc. The number to the left of the decimal is an ordinary whole number. The first number to the right of the decimal is the number of tenths (1/10)'s & etc.	⇒ 1.5, 0.6, 3.14 are Decimal Numbers.	
* Activities for Understanding the Concept.	* <u>Multiplication of Decimal Numbers</u> While finding 0.1 x 0.1 & 0.4 x 0.2, we should notice that first multiply them as whole numbers ignoring the decimal point. In ~~0.1~~ 0.1 & 0.1 we found 01 x 01 = 1 (or) 1 x 1 = 1	* Take 0.1 and 0.1. ⇒ 01 x 01 (or) ⇒ 1 x 1 ⇒ 1	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	Similarly in 0.4×0.2 we found 04 × 02 (or) 4×2 = 8 The products obtained are 1 & 8 respectively.	= 0.4×0.2 = 04 × 02 (or) 4×2 = 8 ∴ Ans = 1 & 8 respectively.	
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic.		
* few Examples on Questions	Example 1:- The length of a rectangle is 7.1 cm and its breadth is 2.5 cm. What is the area of the rectangle? Example 2:- Solve 0.3×6	Solution:- Length of the rectangle = 7.1 cm Breadth = 2.5 cm ∴ Area = 7.1 × 2.5 = 17.75 cm² Solution:- 0.3×6 = 1.8.	
* Conclusion:	Students today we have seen the multiplication of decimal numbers with few examples. Also they were asked few ques. & given few problems to solve in classroom.		

Macro Teaching Lesson Plan - VII

Priliminary Information:-

Name of the Student-Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Fractions, Decimals and Rational Numbers.

Topic :- Division of Decimal Numbers

Time :- 45 min

Aim :-

Understanding the Content :- Students will be able to understand the concept of Division of Decimal numbers with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre - Concept.	Hi, Students, how are you all, Students, till now, we saw how to do addition, subtraction and multiplication using decimal numbers Now, is it possible to do Division using Decimal Numbers.		
* Announcement of the Topic :-	* Today, we will discuss the new topic called Division using Decimal Numbers.	* Name of the Topic :- Division using Decimal Numbers	
* Demonstration & Discussion. → Reading	* A Decimal number is a number with a decimal point in it, like :- 1.5, 0.6, 3.14 etc. The number		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	to the left of the decimal is an ordinary whole number. The first number to the right of the decimal is the number of tenths (1/10)'s & so on.	=> 1.5, 0.6, 3.14. are the Decimal Numbers.	
*Activities for Understaning the Concept.	* Division of a decimal number by a whole number:- Let us find $\frac{6.4}{2}$. Remember we also write it as $6.4 \div 2$ So, $6.4 \div 2 = \frac{64}{10} \div 2 = \frac{64}{10} \times \frac{1}{2}$	* $\frac{6.4}{2}$ is also written as $6.4 \div 2$ $6.4 \div 2 = \frac{64}{10} \div 2$ $= \frac{64}{10} \times \frac{1}{2}$ $\Rightarrow \frac{64 \times 1}{10 \times 2} = \frac{1 \times 64}{10 \times 2}$ $= \frac{1}{10} \times \frac{64}{2} = \frac{1}{10} \times 32$ $= \frac{32}{10} = 3.2$	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Discussion on the topic. *Few Examples or Questions.	*Teacher will be asking students few questions to estimate their knowledge on this topic. Ex. 1:- A truck covers a distance of 92.5 km in 2.5 hrs. If the truck is travelling at the speed through out the journey, what is the distance covered by it in 1 hr.? Ex. 2:- find $0.5 \times 10 = ?$	Solution:- Distance travelled by the truck = 92.5 km Time required to travel this distance = 2.5 hrs So, distance travelled by it in 1 hr $= \frac{92.5}{2.5} = \frac{925}{25}$ $= 37$ km Solution:- 0.5×10 $= \frac{5}{10} \times 10$ $= 5$	
*Conclusion	Students today we have seen the division of decimal numbers with few examples. Also they were asked few ques. & given few problems to solve in classroom.		

Macro Teaching Lesson Plan - VIII

Priliminary Information:-

Name of the Student-Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Simple Equations

Topic :- Simple Equations

Time :- 45 min

Aim:-

Understanding the Content:- Students will be able to understand the concept of Simple Equations with few examples.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts * Announcement of the Topic * Demonstration & Discussion. → Reading	Good Morning, Students Students, you have seen, how some equations help us in solving puzzles & daily life problems. * We are going to learn about simple equations * for balancing an equation we- (a) add the same number on both the sides (or) (b) Subtract the same number from both the sides (or) (c) Multiply both sides with the same number.	* Name of the topic :- Simple Equations.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Activities for Understanding the Concept.	* What will happen if the left pan of a weighing balance holds 5 kg & the right pan holds 2 kg? * What will happen if the left & right pans holds 3kgs of weights	* A weighing balance needs to have equal weights on both sides to be perfectly balanced.	
*Discussion on the topic.	*Teacher will be asking students few questions to estimate their knowledge on this topic.		
*Few Equations (or) Questions.	Example 1:- Solve $5x = -30$.	Solution:- $5x = -30$ —1, $\frac{5x}{5} = \frac{-30}{5}$ (dividing both sides by 5) $x = \frac{-30}{5}$ —2, $\therefore x = 6$.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	Example - 2:- Solve $\frac{z}{6} = -3$	Solution:- $\frac{z}{6} = -3$ —— (1) $6\left[\frac{z}{6}\right] = 6 \times (-3)$ (multiplying both sides by 6) $\frac{\cancel{6}z}{\cancel{6}} = 6 \times (-3)$ $z = 6 \times (-3)$ —— (2) $\therefore z = -18.$	
*Conclusion	*Students today we have seen the concept of Simple Equations with few examples. Also they were asked few questions & given few problems to solve in classroom		

Macro Teaching Lesson Plan- IX

Priliminary Information :-

Name of the Student - Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Ratio - Applications

Topic :- Percentages.

Time :- 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Percentage with few examples.

Steps / Content	Teaching & Learning Activities	B. B. W.	T. L. M
* Introduction * Objectives of Pre- Concepts.	Good Morning Students. * Children, we you will get your exam results many will be asking what is your percentage? & also what is your grade? Now do any one know how to calculate the percentage of any given numbers and also on what basis?		
* Announcement of the Topic.	* We are going to learn about new topic called Percentage.	* Name of the Topic:- Percentage	
* Demonstration & Discussion → Reading	* The word 'percent' means "per every hundred" (or) 'for a hundred'. The Symbol '%' is used to represent percentage.	* Symbol of percentage is '%'.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Activities for Understanding the Concept.	* 1% can also be written as $\frac{1}{100}$ (or) 0.01 * 27% can also be written as $\frac{27}{100}$ (or) 0.27. * 93% can also be written as $\frac{93}{100}$ (or) 0.93	→ 1% = $\frac{1}{100}$ (or) 0.01 → 27% = $\frac{27}{100}$ (or) 0.27 → 93% = $\frac{93}{100}$ (or) 0.93	
* Discussion on the topic.	* Teachers will be asking students few questions to estimate their knowledge on this topic.		
* Few Examples (or) Questions.	Ex:- Shirt "A" has $\frac{3}{5}$ cotton where Shirt "B" has $\frac{3}{4}$ cotton. (a) What is the percentage of cotton in each shirt? (b) Which shirt has more percentage of cotton?		

Steps/Content	Teaching & Learning Activities	B.B.W.	R.L.M.
		Solution:- The percentage of cotton in shirt 'A' $= \frac{3}{5} \times 100 = 60\%$ The percentage of cotton in shirt B $= \frac{3}{4} \times 100 = 75\%$ ∴ Shirt 'B' has more percentage of Cotton	
15 *Conclusion	* Students today we have seen the percentage with few examples. Also they were asked few questions and given few problems to solve in class room.		

Macro Teaching Lesson Plan - X

Priliminary Information :-

Name of the Student - Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Ratio - Applications

Topic :- Profit and Loss

Time :- 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Profit and Loss & with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts. * Announcement of the Topic * Demonstration & Discussion → Reading. * Activities for Understanding the Concept.	Good Morning, Children * Till now, we have learned about Percentages, Ratios and many more * We are going to learn about Profits & Loss. * Generally the term Profit & Loss is used in business. * A toy maker makes a toy for ₹ 50 & sells it for ₹ 75. Does he make profit (or) loss * These types of questions were asked.	* Name of the Topic:- Profit & Loss.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic.	* Teacher will be asked student few questions to estimate their knowledge on this topic.		
* few Examples (or) Questions	Example:- A man sold two cycles for ₹ 3000 each, gaining 20% on one and losing 20% on the other find his gain (or) loss percentage on the whole transaction?	Solution:- SP = 3000/- Gain% on first cycle = 20% Loss% on Second cycle = 20% For first cycle:- If CP is 100/- then the profit is 20/- SP = 100+20 = 120/- Thus, if SP is ₹ 120 then CP = ₹100 $= \frac{100}{120}$ Now, if SP is 3000/- then $CP = \frac{100}{120} \times 3000$ = ₹ 2500	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		For second cycle, If CP is ₹ 100 then the loss is 20 & the SP is 100 − 20 = 80/- Thus if SP is 80/- then CP = 100/- Now, if SP is Rs 1. $CP = \frac{100}{80}$ If SP is 3000/- then CP is $\frac{100}{80} \times 3000 = ₹3750$ Total CP = ₹2500 + 3750/- = 6250 Total SP = 3000/- + 3000/- = 6000/- loss = 6250 − 6000 = 250/- $Loss\% = \frac{loss}{CP} \times 100$ $= \frac{250}{6250} \times 100 = 4\%$	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Conclusion.	Students today we have seen the profit & Loss with few examples. Also students were asked few questions & given few problems to solve in classroom.		

Macro Teaching Lesson Plan - XI

Priliminary Information:-

Name of the Student-Teacher :- R. Anusha

Subject :- Mathematics

Class :- VII

Unit :- Knowing Our Numbers

Topic :- Large Numbers used in Daily Life Situations.

Time :- 45 min.

Aim:-

Understanding the Content:- Students will be able to understand how to use large numbers in daily life Situations.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction * Objectives of Pre-Concepts.	Good Morning Students We know that we use meter (m) as unit of length, kilogram (kg) as unit of weight, and litre (l) as a unit of volume and second (s) as a unit of time. Now, Students to measure the thickness of paper we can't use we can't use big units to measure and viceversa.	*Name of the topic:- Large Numbers Used in Daily Life Situations.	
* Announcement of the topic * Demonstration & Discussion. → Reading	* We are going to discuss "Large Numbers Used in Daily Life Situations *100 millimeters = 1 centimeter 100 centimeters = 1 meter 1000 meters = 1 kilometer	*10mm = 1 cm 100 cm = 1 m 1000 m = 1 km	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Key words	* Centimeter * Millimeter * Kilometer * Litre * Second	* Second * Litre * Kilometer * Millimeter * Centimeter	* Black Board * Math Lab * Smart Board
* Activities for Understanding the Concept.	* We buy rice or Wheat in kgs, But items like Spices, Chilli-powder, haldi etc, which we do not need in large quantities, are brought in grams (g)		
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic.		
* Few Examples or Questions	Ex 1:- A hotel has 15 litres milk. 25ml of milk is required to prepare a cup of tea. How many cups of tea can be made with the milk.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		Solution:- Quantity of milk in the hotel = 15 litres = 15 × 1000 = 15000 ml. Since 25ml of milk is required for each cup of tea no. of cups of tea that can be made = 15000 ÷ 25 = 600 cups.	
	Ex.2:- Tendulkar is a famous cricket player. He has so far scored 15,030 runs in test matches & 18,111 runs in one day cricket. What is the total no. of runs scored by him in both type of matches?	Solution:- Runs scored in Test matches by Tendulkar = 15,030 Runs scored in One day matches = 18,111 Total no. of runs = 15,030 + 18,111 = 33,141	
Conclusion	Students today we learnt about large numbers which were used in our daily life situations.		

Macro Teaching Lesson Plan- XII

Priliminary Information :-

Name of the Student-Teacher :- R. Anusha

Subject :- Mathematics

Class :- VI

Unit :- Playing with Numbers

Topic :- Divisibility by 2, 3

Time :- 45min

Aim:-

Understanding the Content:- Students will be able to understand the concept of divisibility by 2 & 3 with few examples.

Steps / Content	Teaching & Learning Activities	B. B. W.	T.L.M.
* Introduction	Good Morning Students		
* Objectives of Pre- Concepts	* Children, The process of checking whether a number is divisible by another number, when it leaves zero as remainder, divisible by a given number or not without actual division is called divisibility rule for that number.		
* Announcement of the Topic	* We are going to discuss about divisibility by 2 & 3	* Name of the topic:- Divisi-bility by 2 & 3	* Black Board
* Demonstration & Discussion → Reading	* Divisibility by 2:- A number is divisible by 2, if it has any of the digits 0, 2, 4, 6 or 8 in it's ones place	* eg:- 9534, 22, 34, 76 etc.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Activities for Understanding the Concept.	* Let us consider 29. When you divide 29 by 2, it leaves remainder 1, which says that this number is not divisible by two * Let us consider 63. When you divide 63 by 3, the rule is 6+3=9, now we should check whether 9 is divisible by 3 (or) not, well yes it is, so 63 is divisible by 3.		
* Discussion on the topic.	* Teacher will be asking students few questions to estimate their knowledge on this topic.		
* Few Examples (or) Questions.	Ex:- Are 953, 9534, 900, 452 divisible by 2?	Solution:- * 953 is not divisible by 2, because last digit is not divisible by 2 * 9534 is divisible	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		by 2, because the last digit is 4, which is divisible by 2 * 900 is also divisible by 2, because the last digit is 0, which is divisible by 2. * 452 is also divisible by 2, because the last digit is 2, which is divisible by 2.	
	Ex: Check whether 321729 is divisible by 3.	Solution:- Take number = 321729 Now add all the digits = 3+2+1+7+2+9 = 24 Now check whether 24 is divisible by 3 or not 2+4 = 6.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		So, now check 6 is divisible by 3 or not. Yes 6 is divisible by 3 with remain-der as zero. So 321729 is also divisible by 3.	
* Conclusion.	* Students today we have seen the divisibility by two & three numbers, Rules of those with few examples.		

Macro Teaching Lesson Plan - 13

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Playing with Numbers

Topic - Divisibility by 5 & 10

Time - 45 min.

Aim :-

Understanding the Content :- Students will be able to understand the concept of divisibility by 5 & 10 with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction	Good Morning, Children		
* Objectives of Pre-Concepts.	* Children, we have already checked whether the given number is divisible by 2 & 3.	* Name of the topic :- Divisibility by 5 & 10	
* Announcement of the Topic	* We are going to discuss about divisibility by 5 & 10		
* Demonstration & Discussion → Reading	* Divisibility by 5 :- The numbers which are having their last digits 5 & 0 are divisible by 5	* 10, 15, 25, 100 etc.	
	* Divisibility by 10 :- The numbers which are having their last digit as 0 are	* 10, 20, 100, 200 etc	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
	divisible by 10.		
* Activities for Understanding the Concept.	* Let us consider 29. When you check the last digit it is 9, neither 0 nor 5 which says that the number 29 is not divided by 5	$\Rightarrow \frac{29}{5}$ ⇒ Remainder is 4 which is not equal to 0 So not divisible by 5	
	* Let us consider 30, when you check the last digit it is 0, which says that the number 30 is divisible by 5 as well as 10 both.		
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic		
* Few Examples on Question	Ex:- Whether the below given		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	numbers 5785, 6021, 1000, 2001 are divisible by 5 and 10?	Solution:- * 5785 → the last digit is 5 which is divisible by 5 but not 10. * 6021 → the last digit is 1 which is not divisible by 5 or 10. * 1000 → the last digit is 0 which is divisible by 5 & 10. → 2001 → the last digit is 1 which is not divisible by 5 and 10.	
* Conclusion.	* Students today we have seen the numbers divisiblity of 5 & 10 numbers. Rules of those with few examples		

Macro Teaching Lesson Plan - 14

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Playing with Numbers

Topic - Divisibility by 9, 6

Time - 45 min

Aim:-

Understanding the Content :- Students will be able to understand the concept of divisibility by 6 & 9 with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction * Objectives of Pre-Concept. *Announcement of the Topic *Demonstration & Discussion → Reading	Good Morning, Students * Children, we have already checked whether the given number is divisible by 6 & 9 or not. * We are going to discuss about divisibility by 6 & 9. * Divisibility by 6 :- If the given number is divisible by both 2 & 3, then the number is divisible by 6. * Divisibility by 9 :- If the given number is added, then the answer is divisible by 9, then the number is divisible by 9.	*Name of the Topic :- Divisibility by 6 & 9. *Given number is 12, then it is divisible by 2 & 3 then the num is divisible by 6 also. * Given num. is 18 = 1+8 = 9 So 18 is divisible by 9.	

Steps / Content	Teaching & Learning Activities	B.B.W	T.L.M.
*Activities for Understanding the Concept.	* If a number is divisible by both 2 & 3, then it is also divisible by 6.	ex:- 6. The given number is divisible by 2 & 3, hence it is also divisible by 6.	
	* If a number is divisible by 9, if the sum of the digits of the number is divisible by 9.	ex:- 18 This is divisible by 9 with remainder '0' But 18 = 1+8 = 9, Hence this is also divisible by 9.	
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic.		
* Few Examples (or) Questions	Eg:-1 Check whether 24 is divisible by 6 or not?	Solution:- The number is = 24. The last digit is 4 which is divisible by 2. The sum of two digits	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		is 2+4 = 6 which is divisible by 3. Hence the num 24 is divisible by both 2 & 3 so it is divisible by 6 also.	
	Ex. 2:- Check whether the num 18 is divisible by 9 or not	Solution :- The num = 18 The sum is = 1+8 = 9 Hence the num. 18 is divisible by 9.	
* Conclusion	* Students today we have seen the divisibility of 6 & 9 numbers. Rules of those with few examples.		

Macro Teaching Lesson Plan - 15

Priliminary Information :-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Playing with Numbers

Topic - finding HCF

Time - 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of HCF with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts.	Good Morning, Children Till now we have learned the factors of numbers, but is it possible to have same factors for both numbers		
* Announcement of the topic	* Today we are going to learn the HCF (Highest Common factors) of the given numbers.	* Name of the topic - HCF of the given numbers.	
* Demonstration & Discussion → Reading.	* The Highest Common factor (HCF) of two or more given numbers is the highest of their common factors.		
* Activities for Understanding the Concept.	* Number is 12. The factors of the number are	* Number is 12. ⇒ 1, 2, 3, 4, 6, 12	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
	* Number = 18 factors of the number =	⇒ The number is 18 ⇒ The factors = 1, 2, 3, 6, 9, 18	
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic.		
* few Examples (or) Questions.	Ex:- The H.C.F of 12, 30 & 36 are _____ ?	Solution:- The factors of 12 are 2 | 12 2 | 6 3 | 3 1 12 = 2×2×3. The factors of 30 are 2 | 30 3 | 15 5 | 5 1 The factors are 30 = 2×3×5×1	

Steps / Content	Teaching & Learning Activities	B.B.W.	TLM
		The factors of 36 are 3 | 36 3 | 12 2 | 4 2 | 2 1 $36 = 3 \times 3 \times 2 \times 2 \times 1$ The common factors of 12, 30 & 36 are $2 \times 3 = 6$. Hence, HCF of 12, 30 & 36 is 6	
* Conclusion	* Students today we have seen the HCF of given numbers.		

Macro Teaching Lesson Plan - 16

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Playing with Numbers

Topic - LCM of the given Numbers

Time - 45 min

Aim:-

Understanding the Content:- Students will be able to understand the concept of LCM with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction *Objectives of Pre- Concepts.	Good Morning, Students * We have learn the HCF of given numbers. Is it possible to have Least factors for both numbers		
* Announcement of the topic	* We are going to learn the LCM (Least Common Multiple) of the given numbers	*Name of the topic - LCM of the given numbers	
* Demonstration & Discussion → Reading	* The Lowest Common Multiple (LCM) of two or more given numbers is the lowest of their common multiples.		

Steps/ Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Activities for Understanding the Concept.	* The Numbers are 12 & 15 The factors of 12 => The factors of 15 =>	The factors of 12 are 2 | 12 2 | 6 3 | 3 1 $12 = 2 \times 2 \times 3 \times 1$ The factors of 15 are 3 | 15 5 | 5 1 $15 = 3 \times 5 \times 1$	
	The factors of 12 & 15 are $12 = 2 \times 2 \times 3 \times 1$ $15 = 5 \times 3 \times 1$ Which are not matching are $= 2 \times 2 \times 5$	L.C.M are $\Rightarrow 2 \times 2 \times 5$ $\Rightarrow 4 \times 5$ $\Rightarrow 20$	
* Discussion on the topic	* Teacher will be asking students few questions to estimate their knowledge on this topic.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Few Examples (or) Questions	Ex:- Two bells ring together If the bells ring at every 3 mins and 4 mins respectively. After what interval of time will they ring together again?	Solution First bell rings at 3 min ie, 6, 9, 12, 15, 18 ---- Second bell rings at 4 min ie, 8, 12, 16, 20, 24 ---- L.C.M. is ___ Both bells ring together at 12 min, 24 min --- L.C.M. is 12 min.	
* Conclusion	* Students today we have seen the L.C.M of given numbers with few examples.		

Macro Teaching Lesson Plan - 17

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Integers

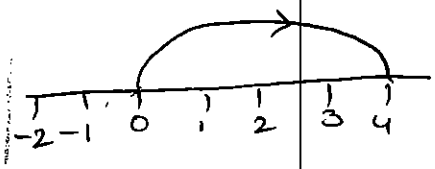
Topic - Addition of integers

Time - 45 min

Aim:-

Understanding the Content:- Students will be able to understand the concept of Addition of Integers with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	TLM
* Introduction	Good Morning Children		
* Objectives of Pre- Concept.	Children we have used 1, 2, 3, 4 and even 0 also but do we have any negetive numbers. If yes, then what do we call them.	* Name of the topic :- Addition of Integers.	
* Announcement of the topic	* We are going to learn the concept of Addition of Integers.		
* Demonstration and Discussion	* Integers :- The collection of all the positive numbers {1, 2, 3, ----}, negative numbers {-1, -2, -3, ---} & zero put together, they are called as Integers.	* Integers = {-3, -2, -1, 0, 1, 2, 3, ---}	
→ Reading.			

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Activities for Understanding the Concept.	* Counting the numbers $(+6) + (-2)$	$\Rightarrow (+6)+(-2)$ $\Rightarrow +6-2$ $\Rightarrow +4$  	
* Discussion on the topic.	* Teacher will be asking students few questions about the topic & can estimate how much students have understood.		
* Few Examples (or) Questions	Ex:- Find the sum of (-20), (-82), (-28) & (-14)	$\Rightarrow$ The numbers are $(-20), (-82), (-28)$ and (-14) $\Rightarrow (-20)+(-82)+(-28)+(-14)$ $\Rightarrow -144$	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	Ex 2:- Find the sum of $25+(-21)+(-20)+(+17)+(-1)$	Solution:- $\Rightarrow 25+(-21)+(-20)+(17)+(-1)$ $\Rightarrow 25+17+(-21)+(-20)+(-1)$ $\Rightarrow 25+17+(-21)+(-21)$ $\Rightarrow 42-42$ $\Rightarrow 0$.	
* Conclusion	* Students, today we have seen the addition of integers with few examples.		

Macro Teaching Lesson Plan - 18

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Integers

Topic - [Addition] Subtraction of integers

Time - 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Subtraction of Integers with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Introduction * Objectives of Pre- Concept	Good Morning Students. Children, we have learn addition of Integers in last classes. Now, is it possible to do subtraction of Integers.	* Name of the topic :- Subtraction of Integers.	
* Announcement of the topic	* We are going to learn the concept of Subtraction of Integers.		
* Demonstration & Discussion. → Reading	* Integers :- The collection of all the +ve numbers & -ve number and zero are called as Integers.	* {--- -3, -2, -1, 0, 1, 2, 3, ---} are called Integers.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Activities for Understanding the Concept.	* Subtraction of the given numbers. $(+6) - (-5) =$	$\Rightarrow (+6) - (-5)$ $\Rightarrow (+6) + (5)$ $\Rightarrow 11$	
* Discussion on the topic	* Teacher will be asking students few questions about the topic & can estimate how much students have understood.		
* Few Examples and Questions.	* Ex 1:- Subtract (-6) from (-13)	Solution :- (-6) from (-13) is. $\Rightarrow (-13) - (-6)$ $\Rightarrow -13 + 6$ ($\because$ - x - will become +) $\Rightarrow -13+6$ $\Rightarrow -7$	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
	Ex2:- Simplify:- $(-6)-(+7)-(-24)$	$\Rightarrow (-6)-(+7)-(-24)$ $\Rightarrow (-6)-(7)+(24)$ $\Rightarrow -13+24$ $\Rightarrow 11$	
* Conclusion	* Students, today we have seen the subtraction of integers with few Examples.		

Macro Teaching Lesson Plan – 19

Preliminary Information:-

Name of the Student - Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Fractions and Decimals

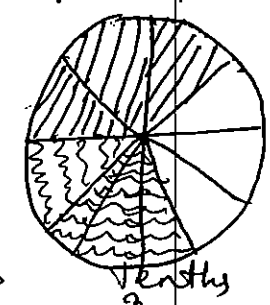
Topic - Addition of Decimal Fractions

Time - 45 min

Aim:-

Understanding the Content:- Students will be able to understand the concept of Addition of Decimal fractions with few examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Introduction * Objectives of Pre- Concept.	Good Morning Students Children, we have seen fractions and also whole numbers, even integers till now, but do we have any other type of numbers?		
* Announcement of the topic	* Today, we are going to learn about Addition of Decimal fractions on numbers.	* Name of the topic :- Addition of Decimal fractions	
* Demonstration & Discussion → Reading	* Decimal :- A Decimal Number is a number with a decimal point in it, like :- 1.5, 0.6, 3.14 etc. The		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Activities for Understanding the Concept	number to the left of the decimal is an ordinary whole number. The first number to the right of the decimal is the number of tenth (1/10)'s & etc. * <u>Addition of Decimal Fractions (or) Numbers</u> :- * Add 0.3 & 0.4. ⇒ Shade 3 equal parts to represent 0.3. ⇒ Now shade 4 equal parts to represent 0.4. ⇒ Now count the total no. of shaded tenths in the circle. ∴ 0.3 + 0.4 = 0.7.	* Take a circle & divide it into 10 equal parts.  Ones Tenths 0 . 3 + 0 . 4 0 . 7.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic	* Teacher will be asking students few questions about the topic & can estimate how much did they understood.		
* few Examples on Questions.	* Ex:- Add 3.64 + 5.4.	Solution:- Method: 3.64+5.4 $\Rightarrow \frac{364}{100} + \frac{54}{10}$ $\Rightarrow \frac{364}{100} + \frac{540}{100}$ (Make 100th denominator of the second fraction) $\Rightarrow \frac{904}{100}$ $\Rightarrow 9.04$ (write the ans using the decimal point)	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Conclusion	* Students, today we have seen the concept of Addition of Decimal fractions with few Examples.	Method:ii 3.64 + 5.4 Units Tenth Hundredths 3 . 6 4 +5 . 4 0 9 . 0 4 Convert 5.4 into 5.40	

Macro Teaching Lesson Plan - 20

Preliminary Information :-

Name of the Student Teacher - R. Anusha

Subject - Mathematics

Class - VI

Unit - Fractions and Decimals

Topic - Subtraction of Decimal fractions

Time - 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Subtraction of Decimal fractions with few examples

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre- Concept.	Good Morning Children Children, we have seen addition of decimal fraction, now is it possible to have subtraction of decimal fractions		
* Announcement of the topic	* We are going to learn the topic of Subtraction of Decimal fractions	* Name of the topic:- Subtraction of Decimal fractions.	
* Demonstration & Discussion. → Reading	* A Decimal Number is a number with a decimal point in it like:- 1.5, 0.6, 3.14 etc. The		

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	The number to the left of the decimal is an ordinary whole number. The first number to the right of the decimal is the number of tenth (1/10)'s & etc		
* Activities for Understanding the Concept.	* <u>Subtraction of Decimal fractions or Numbers</u> :-		
	* Subtract 3.57 and 2.25.	* The numbers are 3.57, 2.25 U. T. H. 3 . 5 7 − 2 . 2 5 1 . 3 2	
* Discussion on the topic	* Teacher will be asking students few questions about the topic & can		

Steps / Content	Teaching & Learning Activities	B.B/W.	T.L.M.
	estimate how much did they understood.		
* Few Examples (or) Questions.	* Ex:- Subtract 1.23 from 2.85	Solution. O. T. H 2 . 8 5 - 1 . 2 3 1 . 6 2. Thus 2.85 − 1.23 is 1.62.	
* Conclusion	* Students today we have seen the concept of Subtraction of Decimal fractions (or) Numbers.		