

DELHI PUBLIC SCHOOL GHAZIABAD
CLASS – VI
LESSON PLAN
CHAPTER-1: KNOWING OUR NUMBERS

Unit	Mathematics (Chapter -1: Knowing Our Numbers)
Class Transaction	Total: 4 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires: 1. Basic knowledge of natural numbers and whole numbers. 2. Knowledge of Indian system of numeration. 3. Knowledge of greater and smaller number. 4. Knowledge of addition , subtraction ,multiplication and division.
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. HW notebook
Learning Outcomes	KNOWLEDGE: Students will be able to: • put commas in the 6digit,7digit numbers according to Indian and International system of numeration. • read and write the numeral as per Indian System of Numeration • read and write the numeral as per International System of Numeration • solve problems based on the basic operations (+, -, $\times$, $\div$) • make comparison and able to form Larger numbers with and without conditions. • estimate the numbers near to Tens, Hundreds and Thousands • write the Hindu Arabic numerals as Roman numerals and vice versa. SKILLS and COMPETENCIES 1) Critical thinking and problem solving (working effectively with others), 2) Character building (Taking tasks fearlessly and achieves goals.) 3) Communication (evaluating the information critically and competently. 4) Collaboration (responding open mindedly to different ideas) 5) Creativity (developing ,implementing and communicating new ideas)
Transaction ,Methodology (The teacher can use the mentioned techniques, wherever applicable ,and can use any other too.)	Strategies used- Inductive -deductive reasoning, muddiest point discussion, think pair share. Transaction would proceed in the following manner-

	Brain Storming-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. Introduction of the topic- Digital Content would be shared Guided practice followed by Independent Practice- NCERT questions to be discussed in the classroom. Techniques to be used: Quiz Daily Practice Problem MCQ Peer Assessment Lab Activities						
Resources	Text Book: NCERT text book for Mathematics						
Self Study,Home work Assignments	Independent Practice: Students would do the given questions in their H.W notebooks. H.W. notebooks to be marked as per the given plan: <i>Assessment Parameters:</i> The total marks for the activity is 5 marks On time submission.....1 mark Presentation/ Neatness.....1 mark Content.....3 marks It is also advised that the students come to the class with proper background knowledge of the topic under discussion. They can refer to the resources stated above.						
Assessments	Through Pen Paper Test Students will be assessed creatively and critically <table> <tr> <td>4 UNIT TESTS</td> <td>25 Marks each</td> </tr> <tr> <td>HALF YEARLY EXAMINATION</td> <td>80 Marks</td> </tr> <tr> <td>ANNUAL EXAMINATION</td> <td>80 Marks</td> </tr> </table> INTERNAL ASSESSMENT 10 Marks - Note Book Submission 5 Marks - Lab Practical (Subject Enrichment) 5 Marks Through lab Practical Students are assessed for Collaboration, Critical thinking.	4 UNIT TESTS	25 Marks each	HALF YEARLY EXAMINATION	80 Marks	ANNUAL EXAMINATION	80 Marks
4 UNIT TESTS	25 Marks each						
HALF YEARLY EXAMINATION	80 Marks						
ANNUAL EXAMINATION	80 Marks						

Addressing Classroom Diversity	Due to various social backgrounds and multiple intelligences, the classroom might be a diverse arena. The following techniques can be used for various groups: <i>For gifted students:</i> • Encouragement for referring other resources <i>For weak students</i> • Buddy help to be provided • Provide grade-up classes <i>For differently abled students:</i> • Ignore spelling mistakes and formulae, if not written • Call parents at regular intervals • Provide grade-up classes • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.
ASSESSMENT QUESTIONS	Q1. Fill in the blanks: (i) The predecessor of 80000 is _____. (ii) Ten million is written for _____ in International system of numbers. (iii) We will get _____ after rounding off 79,532 to the nearest thousands. (iv) One crore=_____ thousands. Q2. Answer the following: (i) By how much is 13246510 larger than 4658642? (ii) How can we express Seven Crore Three Thousand Four in numeral form? (iii) What is the face value of 7 in 2,17,53,469? (iv) How many centimetres make one kilometre? Q3. How many whole numbers are there between 210 and 250? Q4 Estimate the following (by rounding off to nearest hundreds): (a) 6,941 (b) 6,320 (c) 416 (d) 126 Q 5 Estimate the following (by rounding off to nearest thousands): (a) 2,4 (b) 1,810 (c) 25,564

	(d) 7,210 (e) 6,499 (f) 62,535
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TOPIC	DAY ONE : INDIAN AND INTERNATIONAL SYSTEM OF NUMERATION
Pre- Requisite for the course	This topic requires knowledge of LARGE NUMBERS which students have already learnt in previous classes.
Assessment of qualifying knowledge	Students will be able to write large numbers in Indian and International system of numeration.
Objective	Enhance ability to use appropriate relation between Indian and International system of numeration and developing the communication and critical thinking.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and identify the Indian and International system of numeration</i> <u>SKILLS and COMPETENCIES</u> <i>Students would be able to Reason effectively and critically the difference between Indian and International system of numeration</i>
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share Transaction would proceed in the following manner- Anticipatory Set: 10 min The facilitator introduces the chapter by Brain Storming (Critical thinking, Collaboration) and ask students to read pages 2 -5of NCERT Book. The facilitator will form a group of 4 and ask students to observe the different numbers written on the board as 2, 5,8,9,0 etc, and work in group to form Largest/ smallest numbers with and without conditions such as keeping 5 at Tens and 8 at Hundreds place so on. Facilitator will further explain the Indian/ International System of Numeration and ask students to practice independently after some guided practice. Discussion of topic and Guided Practice 20 min <u>Inquiry based learning (Critical Thinking and Problem Solving)</u> The students will do the TRY THESE questions from NCERT book with the help of facilitator and then do Q.1 (a) to (c), Q 2 a), b), c) of Ex 1.1 The facilitator would take rounds and help the students in solving the questions.

	Independent Practice: Students will go through the solved example before doing Ex 1.1 of NCERT text book and do Q3 a) b), Q.4 a), b) of Ex 1.1. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral Test (5 minutes)
TOPIC	DAY TWO WORD PROBLEMS ON ALL 4 OPERATIONS
Pre- Requisite for the course	This topic requires knowledge of addition , subtraction ,multiplication and division of LARGE NUMBERS which students have already learnt in previous classes.
Assessment of qualifying knowledge	To be able to identify which operations to be used for a given problem and solve the problem effectively.
Objective	Students will be able to solve the word problems by identifying the operations used to solve them in collaborative manner .
Learning Outcomes	<u>KNOWLEDGE</u>- Students will Demonstrate the ability to find the operations to be used in the given word problems. <u>SKILLS and COMPETENCIES</u>- Students will be able to solve and identify which operation is to be used for the word problems in collaboration with each other.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Transaction would proceed in the following manner- Recapitulation: 5 min Brainstorming on the previously taught concept would be done by asking some Questions. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) An oral quiz will be taken and students will be asked to identify and cite few examples from real world situations and will be able to realize the need of different mathematical operations for the same. Students will be made to sit in groups of 6 and will be given some word stories to work upon like: 1. If the cost of 1 pen is Rs 10 . what will be the cost of 5 such pens ?

	2. If the population of a city in 4567843 in year 2016 and increases by 567894 in 2017. What will be the population of the city at the end of 2017? 3. Out 5678 bulbs 3452 are damaged. Find the number of bulbs which are good to use? 4. If the weight of 5 kg sugar is 25 kg. Find the weight of 1 kg sugar. Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from NCERT book of Exercise in their notebook in the class. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the remaining HW parts of Exercise in their Math HW notebook. Students who would difficulty in solving the problem would solve with the help of their buddies. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral quiz (5 minutes)
TOPIC	DAY THREE ESTIMATION
Pre- Requisite for the course	This topic requires knowledge of addition ,subtraction ,multiplication and division of LARGE NUMBERS which students have already learnt in previous classes.
Assessment of qualifying knowledge	Questions (addition ,subtraction and multiplication) on estimation up to tens, hundreds and thousands.
Objective	Students will be able to learn to guess or estimate reasonably in number of situations in everyday life according to their need.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and</i> Demonstrate the ability to find the estimated value of the given Questions. <u>SKILLS and COMPETENCIES</u>- <i>Students will be able to estimate and</i> Solve the problems in collaboration with each other.
Transaction Methodology (The teacher can use the mentioned techniques, wherever	Strategies used- Think pair share. . Facilitator will ask few questions to arise the interest in the learners like: 1. A man went to the restaurant and got a bill for Rs 567.896 . How much will he pay ? 2. An electricity consumption comes upto 34.54 units . How much approximate units he has consumed?

applicable, and can use any other too.)	3. Rahul purchases 23.750 Kg apples, 14.225 kg mangoes. Find the approximate purchases made by him? Transaction would proceed in the following manner- Recapitulation: 5 min Oral test on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Critical thinking) Exercise would be discussed and students would solve different questions per group and then the questions would be crosschecked. Digital content would be used. The facilitator would take rounds and help students with their doubts. Guided Practice: 15 min The students will solve the questions from NCERT book of Exercise in their notebook in the class with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the HW parts of Exercise in their Math HW notebooks. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	MCQ (5 minutes) 1. What is the estimated value of 2345 to Tens? 2. What is the estimated value of 45678 to Hundreds?
TOPIC	DAY FOUR ROMAN NUMERALS
Pre- Requisite for the course	Knowledge of writing small numbers in Roman numeral.
Assessment of qualifying knowledge	Written test on writing Roman Numerals as Hindu Arabic Numerals and vice versa.
Objective	To be able to write Roman Numerals as Hindu Arabic Numerals and vice versa.
Learning Outcomes	KNOWLEDGE- Students will develop the ability to distinguish between Roman numerals and Hindu Arabic numerals. SKILLS and COMPETENCIES - Students would be able to 1. Collaboratively realize the fact that numerals can be written in different scripts. 2. Comprehend Roman numerals and Hindu Arabic numerals.

Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Strategies used- Think pair share. Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Creativity, Collaboration) The facilitator will ensure that students get sufficient practice to attain mastery on the concepts learnt. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book, solved examples before doing the Exercise in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will solve the various problems independently. Closure: <u>5 min</u> Discussion of muddiest point.
Resources	Text Book: NCERT text book for Mathematics
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test (5 minutes)