Mathematics (Class- VIII)

Learning Outcomes	***Sources***	***Week-wise Suggestive Activities (to be guided by Parents with the help of teachers)***
The learner • generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns • finds out as many rational numbers as possible between two rational numbers	NCERT Textbook of *Mathematics* Chapter 1: RATIONAL NUMBERS Chapter 2: LINEAR EQUATIONS IN ONE VARIABLE E-resources: Rational Numbers https://nroer.gov.in/55ab34ff81fccb4f1d806025/file/5b48442816b51c01f8f25cde https://nroer.gov.in/55ab34ff81fccb4f1d806025/file/5b48455716b51c01f6790635 https://nroer.gov.in/55ab34ff81fccb4f1d806025/file/5b48461216b51c01f6790637 https://nroer.gov.in/55ab34ff81fccb4f1d806025/file/5b4846fe16b51c01f6790645 Linear Equations in one variable https://nroer.gov.in/55ab34ff81fccb4f1d806025/file/57c6f4fb16b51c1d3087a63a	**WEEK 1** • Teacher may initiate discussion about Rational numbers introduced in Class VII by sending some questions to learners. Based on the responses feedback can be given. • Discussion about the properties of rational numbers can begin by motivating the learners to create and observe the examples. Generalisations can then be discussed. • Learners may be asked to compile statements related to properties exhibited by numbers under different operations like addition, subtraction, multiplication and division. They may be encouraged to observe how these properties change as the number system extends. Discussion can be held to evolve a general form of such properties. **WEEK 2** • Use of Exemplar problem book can be done which is available on NCERT website. • Since learners have learnt decimals in earlier classes, open ended questions of the following form may be discussed. *Write those decimal numbers which when rounded off to say second decimal place can give, say, 25.32.* Change numbers for different groups and discuss. • The work of Week 1 may be carried further and textbook of Class VIII may be used which is available on NCERT website. • Teacher may also look for e resources on NROER and ask the learners to refer to them and send their observations. The observations of all learners may be compiled and discussion about a general form can be initiated. **WEEK 3** • The other properties of rational numbers may now be discussed • The work of properties of rational numbers initiated in Week 2 may be carried further in this week and the next week.

		WEEK 4
		• Learners may be given different linear equations to solve. They may be asked , which of these have solutions that are natural numbers/integers/rational numbers which are not integers.
		• they may be asked to form equations which have solutions which are whole numbers/integers/rational numbers which are not integers.
		• Games of the following type can be played:
		  • Write a number
		  • Add 2 to it
		  • Multiply the resulting number by 3
		  • Subtract 3
		  • Multiply by 2
		  • Find 1/6 of the resulting number
		  • Subtract the original number
		• Discuss about the answer obtained. Discussion can be made and inference may be sought about the relation between the conditions of the game and the final result. Discuss whether using the variables for the given conditions can make things more clear and if so, how can the conditions be changed to evolve a new set of conditions and a new result. This will help learners to draw a relation between numbers and also how algebra can simplify things.
		• Assessment of learners can be done by observing their responses. Appropriate feedback can then be given.