

Date :-.....

Class : IX (NINTH) Section :.....

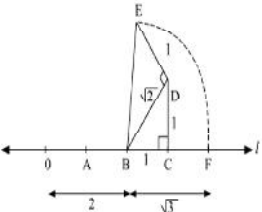
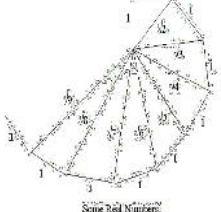
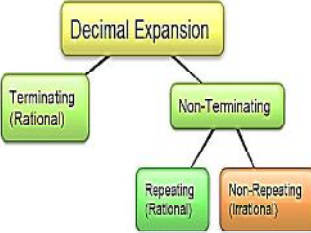
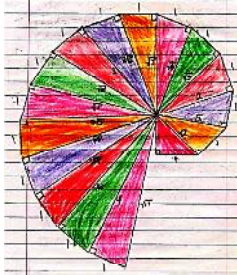
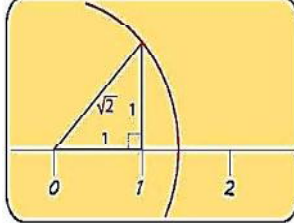
Subject:- Maths

Lesson : a) Rational Numbers

Periods : _19

Gist Of The lesson (Focused skills / Competencies)	Targeted Learning Outcome (TLO)
- A number r is called a Rational Numbers, if it can be written in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$ - A number r is called a Irrational Numbers, if it can not be written in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$. E.g., 1.01001000100001, $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ - The decimal expansion of a Rational Number is either terminating or non-terminating recurring . - The decimal expansion of an Irrational Number is non - terminating non- recurring . - All the Rational Numbers and Irrational Numbers make up a collection of Real Numbers. - There is a Real Numbers corresponding to every point on the number line . - If r is a Rational Number and s is called an Irrational Number , then $r + s$ and $r - s$ are Irrational Numbers , and rs and $\frac{r}{s}$ are Irrational Numbers , $r \neq 0$ Laws of exponents for real numbers. Let $a > 0$ be a real number and m and n be rational numbers. Then, (a) $a^m \times a^n = a^{m+n}$; (b) $a^m \div a^n = a^{m-n}$; (c) $(a^m)^n = a^{mn}$ (d) $a^m \times b^m = (ab)^m$ (e) $\frac{a^m}{b^m} = (\frac{a}{b})^m$ (f) $a^0 = 1$ - To rationalize the denominator of $\frac{1}{(\sqrt{a} + b)}$, we multiply by $\frac{(\sqrt{a} - b)}{(\sqrt{a} + b)}$, where a and b are integers.	- To understand the form of a rational number and an irrational number and its decimal expansion - To understand how to locate $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ etc. on a number line by using Pythagoras theorem. - To locate any real number on a number line using successive magnification - For positive real numbers a and b How to operate identities like ; $\sqrt{ab} = \sqrt{a} \sqrt{b}$ $\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$ $(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b}) = a - b$. $(\sqrt{a} + \sqrt{b})^2 = a + 2\sqrt{ab} + b$ $(a + \sqrt{b})(a - \sqrt{b}) = a^2 - b$
REMARKS/ SUGGESTIONS..... 	

Date of Commencement	[A] Planning Format Annexure – 1
Expected date of completion	Lesson : a) Rational Numbers
Actual date of Completion... ..	

Teaching learning activities planned for achieving the TLO using suitable resources and classroom management strategies	Assessment Strategies Planned
- Show the terminating and non-terminating recurring decimal expansion of a given $\frac{p}{q}$ form. - Make the children understand how to insert rational numbers between given rationals - Show the non-terminating non-recurring decimal expansion of a given irrational number. - Make the children understand how to insert rational numbers between given irrationals. Sow the eggs. Like 1.01001000100001....., 3.25225222522225..... Demonstrate the method to locate $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$ etc, and a positive real number (say 9.3) on a number line on the black board. - Make the children understand the magnification to locate a decimal expansion having more number of digits in the decimal part (Visualization) Demonstrate the operations using different examples and make the children understand how to use algebraic identities in real numbers Demonstrate the simplifications using the conversions $\sqrt{x} = x^{1/2}$, $\sqrt[3]{x} = x^{1/3}$, $\sqrt[4]{x} = x^{1/4}$ etc.   	Sub. Enrichment Lab Activity- Square Root Spiral  Portfolio CW & HW (Qns from exercises) - Revising problems from R D Sharma MULTIPLE ASSESSMENT Oral Tests/QUIZ MCQs CLASS TESTS Cross Word Puzzle 

Sign. of the Teacher _____

Sign. of the PRINCIPAL / VP _____

Name of the Teacher:

Designation :- TGT(MATH)

Date: _____