MATHEMATICS

Number Sense

Grade 7		

1. Students know the properties of and compute with rational numbers expressed in a variety of forms.
 	
    7.1.1 Read, write and compare rational numbers in scientific notation (positive and negative powers of 10), approximate numbers using scientific notation
 	
    7.1.2 Add, subtract, multiply and divide rational numbers, integers, fractions and decimals and take rational numbers to whole number powers
 	
    7.1.3 Convert fractions to decimals and percents and use these representations in estimation, computation and applications
 	
    7.1.4 Differentiate between rational and irrational numbers
 	
    7.1.5 Know that every fraction (of integers in the numerator and denominator) is either a terminating or repeating decimal and be able to convert terminating decimals into reduced fractions
 	
    7.1.6 Calculate percent of increases and decreases of a quantity
 	
    7.1.7 Solve problems that involve discounts, markups, commissions, profit and simple and compound interest
	2. Students use exponents, powers, and roots and use exponents in working with fractions.
	
	    7.2.1 Understand negative whole number exponents. Multiply and divide expressions involving exponents with a common base
	
	    7.2.2 Add and subtract fractions using factoring to find common denominators
	
	    7.2.3 Multiply, divide, and simplify fractions using exponent rules
	
	    7.2.4 Use the inverse relationship between raising to a power and root extraction for perfect square integers; and, for integers which are not square, determine without a calculator, the two integers between which its square root lies, and explain why
	
	    7.2.5 Understand the meaning of the absolute value of a number, interpret it as the distance of the number from zero on a number line and determine the absolute value of real numbers	