Mathematics
Unit 5: Number Sense

Essential Understandings	▪ There are various ways to represent a number.
Essential Questions	▪ How can numbers be expressed, ordered, and compared? ▪ What is standard form/notation? ▪ What is expanded form/notation? ▪ How does one round a number? ▪ What is prime number? ▪ What is a composite number? ▪ What is a factor tree and how is it used? ▪ How can one compare fractions? ▪ How can one compare decimals? ▪ How does one convert a fraction to its decimal equivalent? ▪ How does one convert a decimal to its fractional equivalent?
Essential Knowledge	▪ Standard form/notation is the numeral written with one digit for each place value. ▪ Expanded form/notation shows the place value of each digit. ▪ One rounds a whole number to express it in a simplified form by finding the nearest ten, hundred, thousand, ten thousand, etc. ▪ A prime number is a whole number that has exactly two different positive factors, itself and one. ▪ A composite number has more than two factors. ▪ A factor tree is a visual model that represents all factor pairs for a whole number. ▪ Two fractions are equivalent if they are the same size or on the same point on a number line. ▪ Fractions can be converted to its decimal equivalent. ▪ Decimals can be converted to its fractional equivalent.
Vocabulary	▪ <u>Terms</u>: o prime, composite, factor trees, factors, thousandths, million, mixed numbers, improper fractions

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Essential Skills	▪ Read, write, compare, order, and explain whole numbers to 1,000,000 in standard and expanded form including the use of <, >, and =. (I, R, A) ▪ Round numbers up to and including the nearest million. (I, R, A) ▪ Identify prime numbers and composites between 1 and 100. (I) ▪ Use factor trees to write composite numbers as products of primes. (I) ▪ Identify, read, write, and illustrate fractions of a whole or set with numerators and denominators from 2 to 10, 12, 16, 100, and 1000 using area, set, and length models. (I, R) ▪ Use visual models to compare and order fractions with numerators and denominators from 2-10, 12, 100, and 1000. (I, R, A) ▪ Recognize and generate equivalent fractions with denominators 2, 3, 4, 5, 6, 8, and 10 using visual models. (I, R, A) ▪ Represent improper fractions as mixed numbers and mixed numbers as improper fractions using area, length, and set models. (I) ▪ Recognize and write the decimal equivalents of tenths, hundredth, and thousandths. (I, R) ▪ Compare, order, read, and round decimals to the hundredths. (I, R, A) ▪ Convert from the fraction to the decimal form and the decimal form to the fraction for tenths, fourths, and halves. (I, R, A)

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Related Maine Learning Results	A. Number
	  Whole Number
	  A1.Students understand and use number notation and place value
	    to 100,000 in numerals
	    a. Read and write numbers up to 100,000 in numerals and words.
	    b. Recognize the place values of digits in numbers to 100,000.
	    c. Compare and order numbers with up to five digits.
	    d. Round numbers to the nearest 100 or 1000.
	*** NECAP requires 1 million.
	  Rational Number
	  A4. Students understand, name, compare, illustrate, combine,
	    and use fractions.
	    a. Add and subtract fractions with like denominators and use repeated addition to multiply a whole number.
	    b. List equivalent fractions.
	    c. Add and subtract fractions with like denominators and use repeated addition to multiply a whole number.
	    d. List equivalent fractions.
	  A5.Students understand and use number notation and place value in numbers with two decimal places in real-world contexts including money.
	    a. Compare, order, read, round, and interpret decimals with up to two decimal places.
	    b. Add and subtract decimals with up to two decimal places.