



ABSS Introductory Math Scope & Sequence

Important Documents & Resources

<u>ABSS</u>	<u>NCDPI</u>
<ul style="list-style-type: none"> • ABSS CFA's in Schoolnet 	<ul style="list-style-type: none"> • NC Literacy Instructional Standards & Mathematics 9-12 (NEW)
<ul style="list-style-type: none"> • Student Data Tracker for Intro. Math Standards 	<ul style="list-style-type: none"> • #GoOpenNC Resources (found in the NCEd Cloud)
<ul style="list-style-type: none"> • ABSS High School Mathematics Differentiated Core 	<ul style="list-style-type: none"> • NC2ML Collaborative Resources for High School
<ul style="list-style-type: none"> • ABSS Secondary District Provided Resources 	<ul style="list-style-type: none"> • EdReady/CCRG Teacher Experience
<ul style="list-style-type: none"> • ABSS Secondary Math News 	<ul style="list-style-type: none"> • EdReady/CCRG Student Experience
<ul style="list-style-type: none"> • ABSS Delta Math Help Sheet 	

*Note: If teachers would like to use the paper/pencil workbooks for VMath, we have several of those student workbooks. Just email Erica if you would like some of the workbooks.

Concept	Standards	
<p style="text-align: center;">Administer Pre-Assessment via Schoolnet Online Test ID: 5091075 Student Online Passcode: INTROMATH ABSS CFA's in Schoolnet</p>		
Week 1 Activities		
<p style="text-align: center;"><u>Day 1</u></p> <ul style="list-style-type: none"> ● About Me ● What is means to be College and Career Ready 	<p style="text-align: center;"><u>Day 2</u></p> <ul style="list-style-type: none"> ● Overview of the course ● Pre-Assessment 	<p style="text-align: center;"><u>Day 3</u></p> <ul style="list-style-type: none"> ● SchoolNet Pre-Assessment ● Portrait of a Graduate ● What is a Mathematician?
<p>Unit 1 Foundations SchoolNet Pre-Test: 5092929</p>		
<p>Properties of Multiplication</p>	<p>NC.7.NS.2b Apply and extend previous understandings of multiplication and division. b. Apply properties of operations as strategies, including the standard algorithms, to multiply and divide rational numbers and describe the product and quotient in real-world contexts.</p>	
	<p>NC.7.EE.4 Use variables to represent quantities to solve real-world or mathematical problems. a. Construct equations to solve problems by reasoning about the quantities.</p> <ul style="list-style-type: none"> ○ Fluently solve multistep equations with the variable on one side, including those generated by word problems. ○ Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. ○ Interpret the solution in context. 	

Adding & Subtracting Fractions & Mixed Numbers	NC.7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers, using the properties of operations, and describing real-world contexts using sums and differences.
Multiplying Fractions & Mixed Numbers	NC.7.NS.2 Apply and extend previous understandings of multiplication and division. a. Understand that a rational number is any number that can be written as a quotient of integers with a non-zero divisor.
Dividing Fractions & Whole Numbers by Fractions	NC.6.NS.1 Use visual models and common denominators to: <ul style="list-style-type: none"> ● Interpret and compute quotients of fractions. ● Solve real-world and mathematical problems involving division of fractions.
Rational Numbers	NC.6.NS.5 Understand and use rational numbers to: <ul style="list-style-type: none"> ● Describe quantities having opposite directions or values. ● Represent quantities in real-world contexts, explaining the meaning of 0 in each situation. ● Understand the absolute value of a rational number as its distance from 0 on the number line to: <ul style="list-style-type: none"> ○ Interpret absolute value as magnitude for a positive or negative quantity in a real-world context. ○ Distinguish comparisons of absolute value from statements about order
	NC.6.NS.6a Understand rational numbers as points on the number line and as ordered pairs on a coordinate plane. a. On a number line: <ul style="list-style-type: none"> ○ Recognize opposite signs of numbers as indicating locations on opposite sides of 0 and that the opposite of the opposite of a number is the number itself. ○ Find and position rational numbers on a horizontal or vertical number line.
Adding & Subtracting Positive & Negative Fractions	NC.6.NS.7 Understand ordering of rational numbers. a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. b. Write, interpret, and explain statements of order for rational numbers in real-world contexts.
	NC.7.EE.1 Apply properties of operations as strategies to: <ul style="list-style-type: none"> ● Add, subtract, and expand linear expressions with rational coefficients. ● Factor linear expression with an integer GCF.

Solving One Step Equations	NC.7.EE.2 Understand that equivalent expressions can reveal real-world and mathematical relationships. Interpret the meaning of the parts of each expression in context.
	7.EE.4a Construct equations to solve problems by reasoning about the quantities. <ul style="list-style-type: none"> Fluently solve multistep equations with the variable on one side, including those generated by word problems. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. Interpret the solution in context.
Unit 1 SchoolNet Post-Test: 5092931	
Unit 2 Real Numbers SchoolNet Pre-Test: 5092934	
Order of Operations	NC.6.EE.2 Write, read, and evaluate algebraic expressions. <ul style="list-style-type: none"> Write expressions that record operations with numbers and with letters standing for numbers. Identify parts of an expression using mathematical terms and view one or more of those parts as a single entity. Evaluate expressions at specific values of their variables using expressions that arise from formulas used in real-world problems
Integer Exponents	NC.8.EE.1 Develop and apply the properties of integer exponents to generate equivalent numerical expressions.
Irrational Numbers	NC.8.NS.1 Understand that every number has a decimal expansion. Building upon the definition of a rational number, know that an irrational number is defined as a non-repeating, non-terminating decimal.
Square Roots	8.NS.2 Use rational approximations of irrational numbers to compare the size of irrational numbers and locate them approximately on a number line. Estimate the value of expressions involving: <ul style="list-style-type: none"> Square roots and cube roots to the tenths. π to the hundredths.

	<p>NC.8.EE.2 Use square root and cube root symbols to:</p> <ul style="list-style-type: none"> • Represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. • Evaluate square roots of perfect squares and cube roots of perfect cubes for positive numbers less than or equal to 400.
Scientific Notation	NC.8.EE.3 Use numbers expressed in scientific notation to estimate very large or very small quantities and to express how many times as much one quantity is than another quantity.
	NC.8.EE.4 Use numbers expressed in scientific notation to estimate very large or very small quantities and to express how many times as much one quantity is than another quantity.
Unit 2 SchoolNet Post-Test: 5092940	
Unit 3 Geometry	
Unit 3 & 4 SchoolNet Pre-Test: 5092945	
Volume	NC.8.G.9 Understand how the formulas for the volumes of cones, cylinders, and spheres are related and use the relationship to solve real-world and mathematical problems.
Pythagorean Theorem	NC.8.G.6 Explain the Pythagorean Theorem and its converse.
	NC.8.G.7 Apply the Pythagorean Theorem and its converse to solve real-world and mathematical problems.
	NC.8.G.8 Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
Unit 4 Ratios & Rates	
Ratios	<p>NC.6.RP.1 Understand the concept of a ratio and use ratio language to:</p> <ul style="list-style-type: none"> • Describe a ratio as a multiplicative relationship between two quantities. • Model a ratio relationship using a variety of representations.
Unit Rate	NC.6.RP.2 Understand that ratios can be expressed as equivalent unit ratios by finding and interpreting both unit ratios in context.

Ratio and Rate	NC.6.RP.3 Use ratio reasoning with equivalent whole-number ratios to solve real-world and mathematical problems by: <ul style="list-style-type: none">● Creating and using a table to compare ratios.● Finding missing values in the tables.● Using a unit ratio.● Converting and manipulating measurements using given ratios.● Plotting the pairs of values on the coordinate plane.
Rate of Change	NC.8.F.1 Understand that a function is a rule that assigns to each input exactly one output. <ul style="list-style-type: none">● Recognize functions when graphed as the set of ordered pairs consisting of an input and exactly one corresponding output.● Recognize functions given a graph, equation, table of values or a set of ordered pairs.
Unit 3 & 4 SchoolNet Post-Test: 5092958	
Administer Final Exam Test ID: 5091077	
Student Online Passcode: INTROFINAL	