

**Common core standards from Grade 8 Math:**

General categories/Domain:

1. Ratio and Proportional Relationship (5 %)
2. Then Number System (5 %)
3. Expressions and Equations (25%)
4. Functions (25 %)
5. Geometry (20 %)
6. Statistics and Probability (20 %)

**Common core standards from Math I:**

General categories/Domain:

1. Numbers and Quantities (10 %)
  2. Algebra (30 %)
  3. Functions (40 %)
  4. Geometry (15 %)
  5. Statistics and Probability (20 %)
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## **Math I:**

### **1. Quantities and Relationships**

- Understanding quantities and their relationships
- Analyzing and sorting Graphs
- Recognizing Algebraic and Graphical representations of functions
- Recognizing functions by Characteristics

### **2. Graphs, Equations and inequalities**

- Modeling Linear equations
- Problem solving using multiple methods
- Modeling Inequalities
- Solving and Graphing Compound inequalities
- Absolute Value equations and inequalities
- Understanding Non-Linear Graphs and inequalities

### **3. Linear functions**

- Modeling Data using Regression
- Standard Form of Linear Equations
- Linear Equations in Standard and Slope –intercept Forms
- Combining Linear Equations

### **4. Sequence**

- Recognizing Patterns and Sequences
- Arithmetic and Geometric Sequences
- Using Formulas to Determine Terms of a Sequence
- Graphs of Sequences
- Sequences and Functions

### **5. Graphs of Linear and Exponential Functions**

- Comparing Linear and Exponential Functions
- Graphs of Exponential Functions
- Translations of Linear and Exponential Functions
- Reflection of Linear and Exponential Functions
- Properties of Rational Exponents
- Solving Exponential Functions

### **6. Systems of Equations**

- Solving Linear Systems both Graphically and Algebraically
- Using Linear Combinations to Solve a Linear System
- Solving More Systems

- Using Graphing, Substitution and Elimination Techniques

### **7. Systems of Inequalities**

- Graphing Inequalities
- Systems of Linear Inequalities
- Systems with More than Two Linear Inequalities
- Linear Programming

### **8. Analyzing Data Sets for one Variable**

- Graphically Representing Data
- Determining the Best Measure of Center for Data Set
- Calculating and Interpreting Standard Deviation
- Calculating IQR and Identifying Outliers
- Analyzing and Interpreting Data

### **9. Geometry on the Coordinate Plane**

- Translating and Constructing Line Segments
- Midpoints and Bisectors
- Translating and Constructing Angles and Angle Bisectors
- Parallel and Perpendicular Lines in the Coordinate Plane
- Constructing Perpendicular and Parallel Lines and polygons

### **10. Congruence Through Transformation**

- Translating, Rotating, and Reflecting Geometric Figures
- Congruent Triangles
- SSS, SAS, ASA, AAS Postulates

### **11. Perimeter and Area of Geometric Figures on the Coordinate Plane**

- Using Transformation to Determine Perimeter and Area
- Area and Perimeter of Triangles on the Coordinate Plane
- Area and Perimeter of Parallelograms on the Coordinate
- Planes Determining the Perimeter and Area of Trapezoid and Composite Figures

### **12. Connecting Algebra and Geometry with Polygons**

- Classifying Triangles on the Coordinate Planes
- Classifying Quadrilaterals on the Coordinate Planes
- Determining Points on a Circle
- Circles and Points on the Coordinate Plane

**Curriculum mapping Integrated Math I**

Course Grade: 9	Teacher: Teshale Byan	Date: 06/01/2014
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<u>Topics</u>	<u>Targets</u>	<u>Tasks</u>	<u>Materials/Text</u>	<u>Reflection</u>		
Big Ideas & Essential Questions	NC ESLs & CC state Standards	"I can" Learning targets	Assessments/ Formative task	Projects/ Products	Books and Resources	Reflections
	Chapter 1: <b>Quantities and Relationships</b>	<b>LT1:</b> I can identify differences and relationships between various mathematical quantities. <b>LT2:</b> I can graph and sort mathematical data. <b>LT3:</b> I can recognize different functions by their properties.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b> ❖		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath ❖	
	Chapter 2: <b>Equations, Inequalities and Graphs</b>	<b>LT1:</b> I can model linear equations. <b>LT2:</b> I can linear equations using various techniques. <b>LT3:</b> I can Solve inequalities by using graphical and arithmetical approaches. <b>LT4:</b> I can solve and draw graphs of absolute value equations and inequalities.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b> ❖		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 3: <b>Linear Functions</b>	<b>LT1:</b> I can model a given data with the appropriate function. <b>LT2:</b> I can find a slope for a given linear equations. <b>LT3:</b> I can write linear equations in slope-intercept, standard and point-slope forms. <b>LT4:</b> I can interpret a given linear equations graph	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b> ❖		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	

	Chapter 4: <b>Sequence and Series</b>	<b>LT1:</b> I can identify a mathematical pattern and sequence <b>LT2:</b> I can identify arithmetic and geometric sequences. <b>LT3:</b> I can use a formula to find any term for a given arithmetic or geometric sequence.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ (____ %)		❖ Text Book ❖ Chapter__ ❖ Page #:____ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 5: <b>Exponential Functions and their Graphs</b>	<b>LT1:</b> I can identify graphs of linear functions and exponential functions. <b>LT2:</b> I can summarize basic and fundamental properties of exponential functions. <b>LT3:</b> I can transform graphs of linear and exponential functions using transformation techniques. <b>LT4:</b> I can simplify exponential expressions and solve exponential equations.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ (____ %)		❖ Text Book ❖ Chapter__ ❖ Page #:____ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 6: <b>Systems of Linear Equations</b>	<b>LT1:</b> I can solve systems of linear equations both algebraically and graphically. <b>LT2:</b> I can interpret word problems into simplified systems of linear equations <b>LT3:</b> I can apply substitution and elimination techniques.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ (____ %)		❖ Text Book ❖ Chapter__ ❖ Page #:____ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 7: <b>Systems of Linear Inequalities.</b>	<b>LT1:</b> I can graph systems of linear inequalities. <b>LT2:</b> I can shade graphs of linear inequalities accurately. <b>LT3:</b> I can solve more than two systems of linear inequalities using graphs.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ (____ %)		❖ Text Book ❖ Chapter__ ❖ Page #:____ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 8: <b>Data Analysis and Interpretation</b>	<b>LT1:</b> I can analyze quantitative and interpret data. <b>LT2:</b> I can summarize a given quantitative data using the measures of central tendency. <b>LT3:</b> I can identify outliers and influential points.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ (____ %)		❖ Text Book ❖ Chapter__ ❖ Page #:____ ❖ Worksheet # __ ❖ TeshaleMath	

	Chapter 9: <b>The coordinate Plane and Geometric Constructions</b>	<b>LT1:</b> I can construct basic geometric shapes on the coordinate plane. <b>LT2:</b> I can find midpoints, bisectors and distance for a give line segment. <b>LT3:</b> I can construct parallel and perpendicular lines.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b>		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 10: <b>Congruency and Transformations</b>	<b>LT1:</b> I can prove two triangles are congruent by using SSS, SAS, ASA, AAS postulates and HL theorem. <b>LT2:</b> I can transform geometric shapes by through reflection, rotation and translation.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b>		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 11: <b>Areas and perimeters of Regular Shapes</b>	<b>LT1:</b> I can identify types of triangles, quadrilaterals and regular polygons. <b>LT2:</b> I can calculate areas and perimeters of base shapes, i.e. Triangles, quadrilaterals and regular polygons. <b>LT3:</b> I can identify inequalities within a triangle and between triangles.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b>		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	
	Chapter 12: <b>Circles</b>	<b>LT1:</b> I can identify fundamental properties of a circle. <b>LT2:</b> I can construct a circle on a coordinate plane using a center and radius. <b>LT3:</b> I can find points on a given circle using equation of a circle.	❖ <b>Quiz#:</b> __ ❖ <b>HW</b> Page#: _____ Q#'s: _____ ❖ <b>APO:</b> __ ❖ <b>( ___ %)</b>		❖ Text Book ❖ Chapter __ ❖ Page #: __ ❖ Worksheet # __ ❖ TeshaleMath	
	Review:					

### Alternative mapping for Geometry/Algebra:

	<p>Chapter 9: <b>Polynomials and Polynomial functions</b></p>	<p><b>LT1:</b> I can identify polynomials by name using their numbers of terms and degrees.  <b>LT2:</b> I can add, subtract and multiply polynomials.  <b>LT3:</b> I can find GCF of two or more numbers  <b>LT4:</b> I can find a common factor for a given polynomial.  <b>LT5:</b> I can find factors of a quadratic trinomial.</p>	<ul style="list-style-type: none"> <li>❖ Quiz#: __</li> <li>❖ HW Page#: _____</li> <li>Q#'s: _____</li> <li>❖ APO: _____</li> <li>❖ (____ %)</li> </ul>		<ul style="list-style-type: none"> <li>❖ Text Book</li> <li>❖ Chapter__</li> <li>❖ Page #:__</li> <li>❖ Worksheet #__</li> <li>❖ TeshaleMath</li> </ul>	
	<p>Chapter 10: <b>Quadratic Functions</b></p>	<p><b>LT1:</b> I can identify graphs of quadratic functions  <b>LT2:</b> I can find axis of symmetry, vertices and a parabola for a given quadratic equations.  <b>LT3:</b> I can find factors and roots (if any) of a quadratic functions.  <b>LT3:</b> I can solve quadratic equations using multiple techniques i.e. Sum and product, quadratic formula and completing the square.  <b>LT4:</b> I can determine whether a given quadratic equations has a solution or not by calculating its determinant.</p>	<ul style="list-style-type: none"> <li>❖ Quiz#: __</li> <li>❖ HW Page#: _____</li> <li>Q#'s: _____</li> <li>❖ APO: _____</li> <li>❖ (____ %)</li> </ul>		<ul style="list-style-type: none"> <li>❖ Text Book</li> <li>❖ Chapter__</li> <li>❖ Page #:__</li> <li>❖ Worksheet #__</li> <li>❖ TeshaleMath</li> </ul>	
	<p>Chapter 11: <b>Radical Functions</b></p>	<p><b>LT1:</b> I can identify graphs of radical functions  <b>LT2:</b> I can find domain and range for a give radical function.  <b>LT3:</b> I can draw a graph for a given radical function.  <b>LT4:</b> I can solve a given radical function.</p>	<ul style="list-style-type: none"> <li>❖ Quiz#: __</li> <li>❖ HW Page#: _____</li> <li>Q#'s: _____</li> <li>❖ APO: _____</li> <li>❖ (____ %)</li> </ul>		<ul style="list-style-type: none"> <li>❖ Text Book</li> <li>❖ Chapter__</li> <li>❖ Page #:__</li> <li>❖ Worksheet #__</li> <li>❖ TeshaleMath</li> </ul>	