Mathematics
Grade 8: Year at a Glance
2018-2019

Q1			Q2	Q3			Q4	
Module 1 **Aug.6-Aug. 28**	**Module 2** **Aug.29- Sept. 18**	**Module 3** **Sept.19-Oct. 5**	**Module 4** **Oct.15-Dec.14** (Includes Semester Exam Days)	**Module 5** **Jan 14-Feb. 6**	**Module 6** **Feb. 7-Mar.1**	**Gr. 7 Module 5** **Lessons 6-7** **Feb. 27–Feb 28**	**Module 7** **Mar. 4 -April 12** **After TNReady** **April 29-May 24**	
Integer Exponents and Scientific Notation	**The Concept of Congruence**	**Similarity**	**Linear Equations**	**Examples of Functions from Geometry**	**Linear Functions**		**Introduction to Irrational Numbers Using Geometry**	
8.EE.1	8.G.1	8.G.2	8.EE.5	8.F.1	8.F.4	8.SP.4	8.NS.1	
8.EE.3	8.G.3	8.G.3	8.EE.6	8.F.2	8.F.5		8.NS.2	
8.EE.4	8.G.4	8.G.4	8.EE.7	8.F.3	8.SP.1		8.EE.2	
	8.G.5	8.G.5	8.EE.8	8.G.7	8.SP.2		8.G.4	
					8.SP.3		8.G.5	
							8.G.6	
							8.G.7	
							After TNReady	
							8.EE	1, 3-6, 8
							8.F	1-3
							8.G	2, 5, 7

Note: Please use the suggested pacing as a guide. It is understood that teachers may be up to one week ahead or one week behind depending on the needs of their students.

Use this guide as you prepare to teach a module for additional guidance in planning, pacing, and suggestions for omissions. Pacing and Preparation Guide (Omissions)

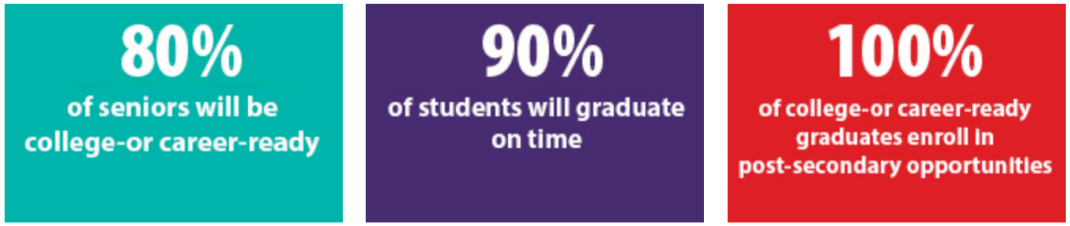
Major Content	Supporting Content

Camilla Horton, Ed.D
6/6/18

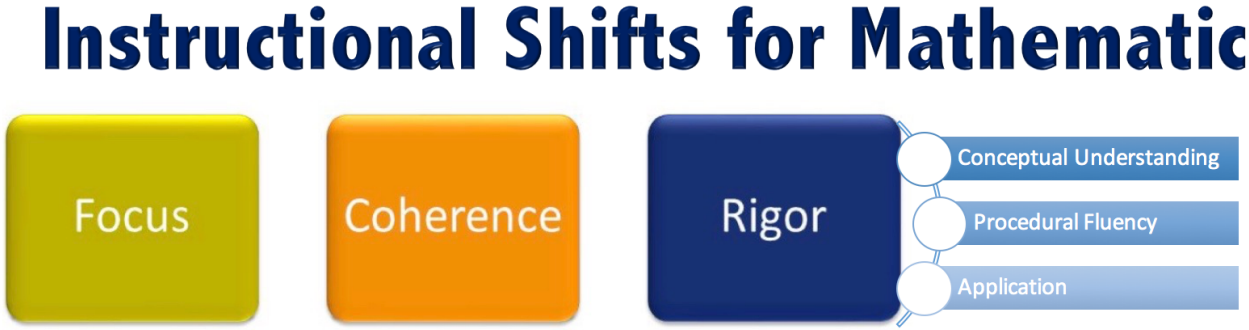
Introduction

Destination 2025, Shelby County Schools' 10-year strategic plan, is designed not only to improve the quality of public education, but also to create a more knowledgeable, productive workforce and ultimately benefit our entire community.

What will success look like?



In order to achieve these ambitious goals, we must collectively work to provide our students with high quality, college and career ready aligned instruction. The Tennessee State Standards provide a common set of expectations for what students will know and be able to do at the end of a grade. The State of Tennessee provides two sets of standards, which include the Standards for Mathematical Content and The Standards for Mathematical Practice. The Content Standards set high expectations for all students to ensure that Tennessee graduates are prepared to meet the rigorous demands of mathematical understanding for college and career. The eight Standards for Mathematical Practice describe the varieties of expertise, habits of mind, and productive dispositions that educators seek to develop in all students. The Tennessee State Standards also represent three fundamental shifts in mathematics instruction: **focus, coherence and rigor**.



The **Standards for Mathematical Practice** describe varieties of expertise, habits of minds and productive dispositions that mathematics educators at all levels should seek to develop in their students. These practices rest on important National Council of Teachers of Mathematics (NCTM) "processes and proficiencies" with longstanding importance in mathematics education. Throughout the year, students should continue to develop proficiency with the eight Standards for Mathematical Practice. The following are the eight Standards for Mathematical Practice:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of them.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

This curriculum map is designed to help teachers make effective decisions about what mathematical content to teach so that ultimately our students can reach Destination 2025. Throughout this curriculum map, you will see resources as well as links to tasks that will support you in ensuring that students are able to reach the demands of the standards in your classroom. In addition to the resources embedded in the map, there are some high-leverage resources around the content standards and mathematical practice standards that teachers should consistently access. For a full description of each, click on the links below.

- Tennessee Mathematics Content Standards
- Standards for Mathematical Practice
- Literacy Skills for Mathematical Proficency

Structure of the Standards

Structure of the TN State Standards include:

- **Content Standards** - Statements of what a student should know, understand, and be able to do.
- **Clusters** - Groups of related standards. Cluster headings may be considered as the big idea(s) that the group of standards they represent are addressing. They are therefore useful as a quick summary of the progression of ideas that the standards in a domain are covering and can help teachers to determine the focus of the standards they are teaching.
- **Domains** - A large category of mathematics that the clusters and their respective content standards delineate and address. For example, Number and Operations – Fractions is a domain under which there are a number of clusters (the big ideas that will be addressed) along with their respective content standards, which give the specifics of what the student should know, understand, and be able to do when working with fractions.
- **Conceptual Categories** – The content standards, clusters, and domains in the 9th-12th grades are further organized under conceptual categories. These are very broad categories of mathematical thought and lend themselves to the organization of high school course work. For example, Algebra is a conceptual category in the high school standards under which are domains such as Seeing Structure in Expressions, Creating Equations, Arithmetic with Polynomials and Rational Expressions, etc.

How to Use the Maps

Overview
An overview is provided for each quarter and includes the topics, focus standards, intended rigor of the standards and foundational skills needed for success of those standards.

Your curriculum map contains four columns that each highlight specific instructional components. Use the details below as a guide for information included in each column.

Tennessee State Standards
TN State Standards are located in the left column. Each content standard is identified as Major Content or Supporting Content. A key can be found at the bottom of the map.

Content
This section contains learning objectives based upon the TN State Standards. Best practices tell us that clearly communicating measurable objectives lead to greater student understanding. Additionally, essential questions are provided to guide student exploration and inquiry.

Instructional Support
District and web-based resources have been provided in the Instructional Support column. You will find a variety of instructional resources that align with the content standards. The additional resources provided should be used as needed for content support and scaffolding.

Vocabulary and Fluency
The inclusion of vocabulary serves as a resource for teacher planning and for building a common language across K-12 mathematics. One of the goals for Tennessee State Standards is to create a common language, and the expectation is that teachers will embed this language throughout their daily lessons. In order to aid your planning, we have also included a list of fluency activities for each lesson. It is expected that fluency practice will be a part of your daily instruction. (Note: Fluency practice is not intended to be speed drills, but rather an intentional sequence to support student automaticity. Conceptual understanding must underpin the work of fluency.

Instructional Calendar
As a support to teachers and leaders, an instructional calendar is provided ***as a guide***. Teachers should use this calendar for effective planning and pacing, and leaders should use this calendar to provide *support* for teachers. Due to variances in class schedules and differentiated support that may be needed for students' adjustment to the calendar may be required.

Grade 8 Quarter 3 Overview

Module 5: Examples of Functions in Geometry
Module 6: Linear Functions
Module 7: Intro to Irrational Numbers Using Geometry

The chart below includes the standards that will be addressed in this quarter, the type of rigor the standards address, and foundational skills needed for mastery of these standards. Consider using these foundational standards to address student gaps during intervention time as appropriate for students

Grade Level Standard	Type of Rigor	Foundational Standards
8.F.A.1	Conceptual Understanding	7.RP.A.2
8.F.A.2	Conceptual Understanding	7.RP.A.2
8.F.A.3	Conceptual Understanding	
8.F.B.4	Conceptual Understanding & Procedural Fluency	7.RP.A.2
8.F.B.5	Conceptual Understanding	
8.G.C.7	Conceptual Understanding & Application	
8.SP.A.1	Conceptual Understanding	6.NS.8
8.SP.A.2	Conceptual Understanding	
8.SP.A.3	Conceptual Understanding & Application	
8.SP.A.4	Conceptual Understanding, Procedural Fluency & Application	7.RP.A.3

Module 5 Examples of Functions in Geometry

Grade 8 Pacing and Preparation Guide

(Allow approximately 4 weeks for instruction, review and assessment)

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Domain: Functions **Cluster**: Define, evaluate and compare functions. ■ **8.F.A.1** Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in 8th grade.) ■ **8.F.A.2** Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and another linear function represented by an algebraic expression, determine which function has the greater rate of change. ■ **8.F.A.3** Know and interpret the equation y = mx + b as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function A = s^2 giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.	**Essential Questions:** • How would you determine that a relationship is a function? • What are some characteristics of a (linear) (nonlinear) function? • How would you interpret the features (e.g. rate of change, initial value, increasing/decreasing) of a function, in a real world context? **Topic A Objectives:** **Lesson 2** • Students refine their understanding of the definition of a function. • Students recognize that some, but not all, functions can be described by an equation between two variables. **Lesson 3** • Students realize that linear equations of the form $y = mx + b$ can be seen as rules defining functions (appropriately called linear functions). • Students explore examples of linear functions. **Lesson 5** • Students define the graph of a numerical function to be the set of all points (x, y) with xx an input of the function and y its matching output. • Students realize that if a numerical function can be described by an equation, then the graph of the function precisely matches the	**Topic A: Functions** **Lesson 1 Omit** In place of Module 5 Lesson 1 it is suggested that teachers use **Teacher Toolbox Lesson 6: *Understand Functions*** before going to Module 5 Lesson 2 **Lesson 2** **Lesson 3** **Lesson 4 Omit** **Lesson 5** **Lesson 6** **Lesson 7** **Lesson 8** **For Topic A, you may choose to use resources from the following Teacher Toolbox lessons for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 6: *Understand Functions*** (supports Module 5 Lesson 2) • **Lesson 7: *Compare Functions*** (supports Module 5 Lesson 7) • **Lesson 8: *Understand Linear Functions*** (also supports Module 5 Lesson 7) **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math: Foxes and Rabbits 8.F.1	**Vocabulary for Module 5** Cone, Cylinder, Equation Form of a Linear Function, Function, Graph of a Linear Function, Lateral Edge and Face of a Prism, Lateral Edge and Face of a Pyramid Linear, Solid Sphere or Ball Sphere, Sphere **Familiar Terms and Symbols for Module 5** Area, Linear equation, Nonlinear equation, Rate of change, Solids, Volume

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	graph of the equation. **Lesson 6** • Students deepen their understanding of linear functions. **Lesson 7** • Students compare the properties of two functions that are represented in different ways via tables, graphs, equations, or written descriptions. • Students use rate of change to compare linear functions. **Lesson 8** • Students examine the average rate of change for nonlinear function over various intervals and verify that these values are not constant.	Illustrative Math: Function Rules 8.F.1 Illustrative Math: Battery Charging 8.F.A.2 Illustrative Math: Intro to Linear Functions 8.F.3 **Reminder:** *It is recommended that teachers begin preparing for Module 6 by 1/24/19.*	
Domain: Geometry **Cluster:** Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres ➢ **8.G.C.7 (formerly 8.G.C.9)** Know and understand the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems.	**Essential Questions:** • What are the similarities and differences between the formulas for the volume of cylinders, cones, and spheres? • How do the volume formulas for cones, cylinders and cylinders relate to functions? **Topic B Objectives:** **Lesson 9**: • Students write rules to express functions related to geometry. • Students review what they know about volume with respect to rectangular prisms and further develop their conceptual understanding of volume by comparing the liquid contained within a solid to the volume	**Topic B: Volume** **Lesson 9** **Lesson 10** **Lesson 11** **For Topic B, you may choose to use resources from the following Teacher Toolbox lesson for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 26: *Understand Volume of Cylinders, Cones and Spheres*** **End of Module 5 Assessment & Review of Assessment:** ***(Complete by 2/6/19)***	

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
	of a standard rectangular prism (i.e., a prism with base area equal to one). **Lesson 10:** • Students know the volume formulas for cones and cylinders. • Students apply the formulas for volume to real-world and mathematical problems. **Lesson 11** • Students know the volume formula for a sphere as it relates to a right circular cylinder with the same diameter and height. • Students apply the formula for the volume of a sphere to real-world and mathematical problems.	**Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math: Comparing Snow Cones 8.G.C.7 Illustrative Math Flower Vases 8.G.C.7	

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Module 6 Linear Functions **Grade 8 Pacing and Preparation Guide** **(Allow approximately 4 weeks for instruction, review and assessment)**			
Domain: Expressions and Equations **Cluster:** Understand the connections between proportional relationships, lines, and linear equations. ■ **8.F.B.4** Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. ■ **8.F.B.5** Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	**Essential Question(s):** • How can patterns, relations, and functions be used as tools to best describe and help explain real-life relationships? **Topic A Objectives** **Lesson 1** • Students determine a linear function given a verbal description of a linear relationship between two quantities. • Students interpret linear functions based on the context of a problem. • Students sketch the graph of a linear function by constructing a table of values, plotting points, and connecting points by a line. **Lesson 2** • Students interpret the constant rate of change and initial value of a line in context. • Students interpret slope as rate of change and relate slope to the steepness of a line and the sign of the slope, indicating that a linear function is increasing if the slope is positive and decreasing if the slope is negative. **Lesson 3** • Students graph a line specified by a linear function. • Students graph a line specified by an initial value and a rate of change of a function and construct the linear function by interpreting the graph.	**Topic A: Linear Functions** **Lesson 1** **Lesson 2** **Lesson 3** **Lesson 4** **Lesson 5** **For Topic A, you may choose to use resources from the following Teacher Toolbox lessons for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 9: *Analyze Linear Functions*** • **Lesson 10: *Graphs of Functional Relationships*** **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math: 8.F.4 Tasks Illustrative Math: Chicken and Steak, Variation 1 8.F.B.4 Illustrative Math: Chicken and Steak, Variation 2	**Vocabulary for Module 6** Association Bivariate Data Set Column Relative Frequency Row Relative Frequency Scatter Plot Two-Way Frequency Table Variable **Familiar Terms and Symbols for Module 6** Categorical variable Intercept or initial value Numerical variable Slope

	• Students graph a line specified by two points of a linear relationship and provide the linear function. **Lesson 4** • Students describe qualitatively the functional relationship between two types of quantities by analyzing a graph. • Students sketch a graph that exhibits the qualitative features of a function based on a verbal description. **Lesson 5** • Students qualitatively describe the functional relationship between two types of quantities by analyzing a graph. • Students sketch a graph that exhibits the qualitative features of linear and nonlinear functions based on a verbal description.		
Domain: Statistics and Probability **Cluster:** Investigate patterns of association in bivariate data. ➢ **8.SP.A.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. ➢ **8.SP.A.2** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	**Essential Question(s):** • What is the meaning of the slope and intercept of a line, in the context of the situation? • How can mathematics be used to provide models that helps us interpret data and make predictions? **Topic B Objectives:** **Lesson 6:** • Students construct scatter plots. § Students use scatter plots to investigate relationships. • Students understand that a trend in a scatter plot does not establish cause-and-effect. **Lesson 7**: • Students distinguish linear patterns from	**Topic B: Bivariate Numerical Data** **Lesson 6** **Lesson 7** **Lesson 8** **Lesson 9** **For Topic B, you may choose to use resources from the following Teacher Toolbox lessons for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 28: *Scatter Plots*** • **Lesson 29: *Scatter Plots and Linear Models*** **Mid-Module 6 Assessment & Review of Assessment** ***(Complete by 2/22/19)***	

	nonlinear patterns based on scatter plots. • Students describe positive and negative trends in a scatter plot. • Students identify and describe unusual features in scatter plots, such as clusters and outliers. **Lesson 8**: • Students informally fit a straight line to data displayed in a scatter plot. § Students make predictions based on the graph of a line that has been fit to data. **Lesson 9:** • Students informally fit a straight line to data displayed in a scatter plot. • Students determine the equation of a line fit to data. • Students make predictions based on the equation of a line fit to data.	**Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Illustrative Math Task: Hand Span & Height 8.SP.1 Illustrative Math Task: Texting & Grades I 8.SP.1 Illustrative Math: Laptop Battery Charge 8.SP.2 **Reminder:** *It is recommended that teachers begin preparing for Module 7 by 2/19/19.*	
Domain: Statistics and Probability **Cluster:** Investigate patterns of association in bivariate data. ➢ **8.SP.A.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. ➢ **8.SP.A.2** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to	**Essential Question(s):** What kind of patterns can be found in bivariate data? **Topic C Objectives:** **Lesson 10** • Students identify situations where it is reasonable to use a linear function to model the relationship between two numerical variables. • Students interpret slope and the initial value in a data context. **Lesson 11** • Students recognize and justify that a linear model can be used to fit data. • Students interpret the slope of a linear model to answer questions or to solve a problem.	**Topic C Linear and Nonlinear Models** **Lesson 10** **Lesson 11** **Lesson 12 (Optional)** ***Omit Lessons 13-14 because they address a standard that is no longer an 8th grade TN Math State Standard.*** **Grade 7 Module 5 Topic A (Addresses 8.SP.A.4)** • **Lesson 6** • **Lesson 7** **For Topic C, you may choose to use resources from the following Teacher Toolbox lesson for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 30: *Solve Problems with***	

the line. ➢ **8.SP.A.3** Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. **Domain**: Statistics and Probability **Cluster:** Investigate chance processes and develop, use and evaluate probability models. ➢ **8.SP.A.4** (**New to 8th grade**) Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.	**Lesson 12** • Students give verbal descriptions of how y changes as x changes given the graph of a nonlinear function. • Students draw nonlinear functions that are consistent with a verbal description of a nonlinear relationship. **Grade 7 Module 5 Topic A (Addresses 8.SP.A.4)** **Lesson 6** • Given a description of a chance experiment that can be thought of as being performed in two or more stages, students use tree diagrams to organize and represent the outcomes in the sample space. • Students calculate probabilities of compound events. **Lesson 7** • Students will calculate probabilities of compound events.	***Linear Models*** **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed***.** Illustrative Math: Animal Brains 8.SP.A.1, 8.SP.A.2 Illustrative Math: Laptop Battery Charge 8.SP.A.2 Illustrative Math Task: US Airports, Assessment Variation 8.SP.3 Illustrative Math: Red, Green or Blue? 8.SP.A.4 Illustrative Math: Waiting Times 8.SP.A.4 Illustrative Math: Sitting Across from Each Other 8.SP.A.4 Please create an assessment and include items to assess 8.SP.4. ***(Complete by 3/1/19)***	

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Module 7 Intro to Irrational Numbers Using Geometry **Grade 8 Pacing and Preparation Guide** **(Allow approximately 1 week for instruction, review and assessment)**			
Domain: Number System **Cluster:** Know that there are numbers that are not rational and approximate them by rational numbers. ➢ **8.NS.A.1** Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually or terminates, and convert a decimal expansion which repeats eventually or terminates into a rational number. ➢ **8.NS.A.2** Use rational approximations of irrational numbers to compare the size of irrational numbers locating them approximately on a number line diagram. Estimate the value of irrational expressions such as □². For example, by truncating the decimal expansion of √2, show that √2 is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations. **Domain**: Expressions and Equations **Cluster:** Work with radicals and integer exponents. ■ **8.EE.A.2** Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square	**Essential Question(s):** • How do radicals and exponents influence one's understanding of other content, such as geometry and science? • What is the relationship between squares and square roots? Cube and cube roots? **Topic A Objectives:** **Lesson 1** • Students know that they can estimate the length of a side of a right triangle as a number between two integers and identify the integer to which the length is closest. **Lesson 2** • Students are introduced to the notation for square roots. • Students approximate the location of square roots of whole numbers on the number line. **Lesson 3** • Students know that the positive square root and the cube root exist for all positive numbers and both a square root of a number and a cube root of a number are unique. • Students solve simple equations that require them to find the square root or cube root of a number. **Lesson 5** • Students find the positive solutions to equations algebraically equivalent to equations of the form $x^2=p$ and $x^3=p$.	**Topic A: Square and Cube Roots** **Lesson 1** (During this lesson it may be helpful to work with students on approximating square and cube roots of values that are not perfect squares or perfect cubes. One suggested resource can be found here.) **Lesson 2** **Lesson 3** (For Lesson 3 it is suggested to only do Exercises 1-6, Exit Ticket #1-2 and Problem Set #1-4 & 7-9) **Lesson 4 Omit** **Lesson 5** **For Topic A, you may choose to use resources from the following Teacher Toolbox lesson for review, remediation and/or assessment to meet the needs of your students.** • **Lesson 2: *Square Roots and Cube Roots*** **Additional Resources:** *These optional resources may be used for extension, enrichment and/or additional practice, as needed.* Formative Assessment items for 8.EE.A.2 Illustrative Math Tasks for 8.NS.1 Illustrative Math Tasks for 8.NS.2	**Vocabulary for Module 7** Cube Root Decimal Expansion Decimal Expansion of a Negative Number Decimal Expansion of a Positive Real Number Decimal System Irrational Number The n^{th} Decimal Digit of a Decimal Expansion The n^{th} Finite Decimal of a Decimal Expansion Perfect Square Rational Approximation Real Number Square Root of a Number The Square Root of a Number Truncated Cone **Familiar Terms and Symbols for Module 7** Decimal Expansion Finite Decimals Number Line Rate of Change Rational Number Volume

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.			

RESOURCE TOOLBOX The Resource Toolbox provides additional support for comprehension and mastery of grade-level skills and concepts. While some of these resources are imbedded in the map, the use of these categorized materials can assist educators with maximizing their instructional practices to meet the needs of all students.		
NWEA MAP Resources: https://teach.mapnwea.org/assist/help_map/ApplicationHelp.htm#UsingTestResults/MAPReportsFinder.htm - Sign in and Click the Learning Continuum Tab – this resources will help as you plan for intervention, and differentiating small group instruction on the skill you are currently teaching. (Four Ways to Impact Teaching with the Learning Continuum) https://support.nwea.org/khanrit - These Khan Academy lessons are aligned to RIT scores.		
Textbook Resources www.greatminds.org Eureka Math Grade 8 Remediation Guides	**Standards Support** TNReady Math Standards Grade 8 Instructional Focus Document Achieve the Core Edutoolbox	**Videos** Khan Academy Learn Zillion
Calculator Activities TI-73 Activities CASIO Activities TI-Inspire for Middle Grades	**Interactive Manipulatives** **Glencoe Virtual Manipulatives** National Library of Interactive Manipulatives	**Additional Sites** **Embarc Online** PBS: Grades 6-8 Lesson Plans Grade 8 Flip Book (This book contains valuable resources that help develop the intent, the understanding and the implementation of the state standards.)

Shelby County Schools – Grade 8 - January 2019					
Mon	**Tue**	**Wed**	**Thu**	**Fri**	
	1 New Year's Day	**2** Teacher PD	**3** Teacher PD	**4** Administrative Day	
7 Q3 Begins Recap any Module 4 lessons that were taught before Winter Break, as needed.	**8** Recap any Module 4 lessons that were taught before Winter Break, as needed.	**9** Recap any Module 4 lessons that were taught before Winter Break, as needed.	**10** Recap any Module 4 lessons that were taught before Winter Break, as needed.	**11** Recap any Module 4 lessons that were taught before Winter Break, as needed.	
14 Begin Module 5	**15**	**16**	**17**	**18**	
21 ML King's Holiday	**22**	**23**	**24** Prepare for Module 6	**25**	
28	**29**	**30**	**31**		

■ Major Content ➢ Supporting Content

Shelby County Schools – Grade 8 - February 2019					
Mon	**Tue**	**Wed**	**Thu**	**Fri**	
				1	
4	**5** End-of Module 5 Assessment & Review of Assessment	**6** End-of Module 5 Assessment & Review of Assessment	**7** Begin Module 6	**8**	
11	**12**	**13**	**14**	**15**	
18 President's Day	**19** Start Preparing for Module 7	**20**	**21** Mid-Module 6 Assessment & Review of Assessment	**22** Mid-Module 6 Assessment & Review of Assessment	
25	**26**	**27** Grade 7 Module 5 Topic A (Addresses 8.SP.A.4) • Lesson 6 •	**28** Grade 7 Module 5 Topic A (Addresses 8.SP.A.4) • Lesson 7		

■ Major Content ➢ Supporting Content

Shelby County Schools – Grade 8 - March 2019					
Mon	**Tue**	**Wed**	**Thu**	**Fri**	
				1 **Module 6** **Topic Assessment &** **Review of Assessment** **Include items to assess 8.SP.4.**	
4 **Begin Module 7 (Lessons 1, 2, 3 & 5)**	**5**	**6**	**7**	**8**	
11 **Spring Break**	**12** **Spring Break**	**13** **Spring Break**	**14** **Spring Break**	**15** **Spring Break**	
18	**19**	**20**	**21**	**22**	
25	**26**	**27**	**28**	**29**	