



Curriculum and Instruction – Mathematics

Quarter 3

Grade 7



Grade 7: Year at a Glance 2018-2019

Q1		Q2		Q3		Q4
Module 1 Aug. 6-Sept. 7	Module 2 Sept. 12- Oct. 25	Module 3 Oct. 25-Nov 29	Module 4 Nov. 30- Jan. 18	Module 5 Topics A-C Grade 6 Module 6 Topic B Jan. 23- March 8	Grade 6 Module 6 Topic C Module 5 Topic D Jan. 23- March 8	Grade 7 Module 6 Mar. 18 – April 12 Review after TNReady April 29-May 24
Ratios and Proportional Relationships	Rational Numbers	Expressions and Equations	Percent and Proportional Relationships	Statistics & Probability	Statistics & Probability	Geometry
7.RP.1	7.NS.1	7.EE.1	7.RP.1	7.SP.1	7.SP.3	7.G.2
7.RP.2	7.NS.2	7.EE.2	7.RP.2	7.SP.2	7.SP.4	7.G.4
7.RP.3	7.NS.3	7.EE.3a	7.RP.3	7.SP.5	7.SP.8	7.G.5
7.EE.4a	7.EE.2	7.EE.3b	7.EE.3	7.SP.6		After TNReady Review Standards
7.G.1	7.EE.4a	7.EE.4	7.G.1	7.SP.7		7.RP.2
		7.G.3		7.SP.8		7.EE.3
		7.G.4				7.EE.4
		7.G.5				

Key:

■ Major Content	➤ Supporting Content
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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.

[Eureka Grade 7 Pacing and Preparation Guide](#)

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■ Major Content

➤ Supporting Content



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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**.

Instructional Shifts for Mathematics



■ Major Content

➤ Supporting Content

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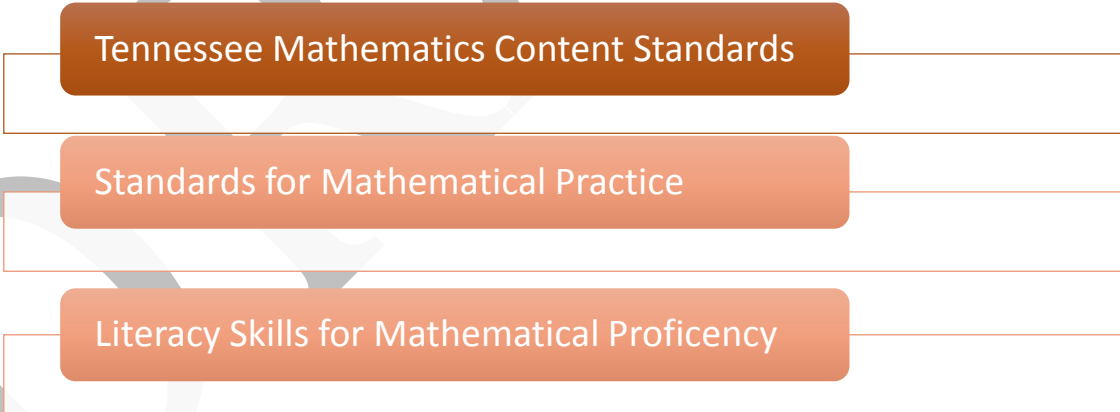
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The **Standards for Mathematical Practice** describe varieties of expertise, habits of minds and productive dispositions that mathematics educators at all levels should seek to develop in their students. These practices rest on important National Council 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.





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.

■ Major Content

➤ Supporting Content



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Grade 7 Quarter 3 Overview

Module 4: Percent & Proportional Relationships

Module 5: Statistics & Probability

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
7.RP.A.2	Conceptual Understanding	6.RP.1, 6.RP.2, 6.RP.3
7.RP.A.3	Application	6.RP.1, 6.RP.2, 6.RP.3
7.EE.B.3	Procedural Fluency	7.NS.3
7.G.A.1	Conceptual Understanding	6.SP.1, 6.SP.2
7.SP.A.1	Conceptual Understanding	6.SP.1, 6.SP.2
7.SP.A.2	Conceptual Understanding	7.SP.1
7.SP.B.3	Conceptual Understanding	5.NF.4, 6.NS.1, 6.SP.2
7.SP.B.4	Conceptual Understanding	7.SP.2, 7.SP.3
7.SP.C.5	Conceptual Understanding	
7.SP.C.6	Conceptual Understanding	7.RP.3, 7.SP.5
7.SP.C.7	Application	7.RP.3, 7.SP.6
7.SP.D.8	Conceptual Understanding, Procedural Fluency, Application	7.RP.3, 7.SP.7

■ Major Content

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TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT	VOCABULARY
Module 4 Percent and Proportional Relationships, Cont'd Grade 7 Pacing and Preparation Guide <i>(Allow approximately 1.5 weeks for instruction, review and assessment)</i>			
<p>Domain: Expressions and Equations Cluster: Use properties of operations to generate equivalent expressions</p> <p>■ 7.RP.A.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p> <p>➤ 7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>	<p>Essential Question(s):</p> <ul style="list-style-type: none"> • How are equivalent ratios, values in a table, and ordered pairs connected? • What characteristics define the graphs of all proportional relationships? • How can scale factor be applied to scale drawings? <p>Topic C Objectives:</p> <p>Lesson 12</p> <ul style="list-style-type: none"> • Given a scale factor as a percent, students make a scale drawing of a picture or geometric figure using that scale, recognizing that the enlarged or reduced distances in a scale drawing are proportional to the corresponding distances in the original picture. • Students understand scale factor to be the constant of proportionality. • Students make scale drawings in which the horizontal and vertical scales are different. <p>Lesson 13</p> <ul style="list-style-type: none"> • Given Drawing 1 and Drawing 2 (a scale model of Drawing 1 with scale factor), students understand that Drawing 1 is also a scale model of Drawing 2 and compute the scale factor. • Given three drawings that are scale drawings of each other and two scale factors, students compute the other related scale factor. <p>Lesson 14</p>	<p>Topic C: Scale Drawings</p> <p>Lesson 12 Lesson 13 Lesson 14 Lesson 15</p> <p>For Topic C, you may use the resources from the following Teacher Toolbox lesson for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> • Lesson 22: Scale Drawings <p>Module 4 Topic C Assessment</p> <p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as needed.</i></p> <p>Illustrative Math: Cider versus Juice-Variation 1 7.RP.A.2b Illustrative Math: Cider versus Juice-Variation 2 7.RP.A.2b Illustrative Math: Floor Plan 7.G.A.1</p> <p>Reminder: It is suggested that teachers begin preparing for Module 5 by 1/9/19.</p>	

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	<ul style="list-style-type: none"> Given a scale drawing, students compute the lengths in the actual picture using the scale factor. <p>Lesson 15</p> <ul style="list-style-type: none"> Students solve area problems related to scale drawings and percent by using the fact that an area, A', of a scale drawing is k^2 times the corresponding area, A, in the original drawing, where k is the scale factor. 		
<p>Domain: Ratios and Proportional Relationships Cluster: Analyze proportional relationships and use them to solve real-world and mathematical problems.</p> <p>■ 7.RP.A.2c: Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.</p> <p>■ 7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.</p> <p>Domain: Expressions and Equations Cluster: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</p> <p>■ 7.EE.B.3: Solve multi-step real-world and mathematical problems posed with positive</p>	<p>Essential Question(s):</p> <ul style="list-style-type: none"> Do proportional relationships have common features? If so what are they and how are they displayed in different representations? What strategies could you use to find the missing value in a proportion? How are your strategies related? <p>Topic D Objectives: Lesson 16</p> <ul style="list-style-type: none"> Students write and use algebraic expressions and equations to solve percent word problems related to populations of people and compilations. 	<p>Topic D: Population, Mixture and Counting Problems Involving Percents</p> <p>Lesson 16 Lesson 17 Omit or use as extension lesson as time permits Lesson 18 Omit or use as extension lesson as time permits</p> <p>For Topic D, you may use the resources from the following Teacher Toolbox lessons for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> Lesson 12: Problem Solving with Proportional Relationships Lesson 13: Proportional Relationships <p>Module 4 Topic D Assessment</p> <p>End-of-Module 4 Assessment & Review of Assessment <i>(Complete by 1/18/19)</i> Module 4 EOM Alternate Assessment</p> <p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as</i></p>	

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<p>and negative rational numbers presented in any form (whole numbers, fractions, and decimals). a. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate. b. Assess the reasonableness of answers using mental computation and estimation strategies.</p>		<p>needed. Illustrative Math: Gym Membership Plans 7.RP.A.2c Extended Constructive Response Task: Sleep Survey 7.EE.B.3 (pp. 1-6) Percent Increase and Decrease Video Lesson</p>	
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Module 5 Statistics and Probability Grade 7 Pacing and Preparation Guide

(Allow approximately 7.5 weeks for instruction, review and assessment)

<p>Domain: Statistics and Probability Cluster: Investigate chance processes and develop, use and evaluate probability models.</p> <p>➤ 7.SP.C.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.</p> <p>➤ 7.SP.C.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.</p> <p>➤ 7.SP.C.7: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p>	<p>Essential Questions:</p> <ul style="list-style-type: none"> • What is the difference between theoretical and experimental probability? • How can data collection assist in making predictions about an event? <p>Topic A Objectives</p> <p>Lesson 1</p> <ul style="list-style-type: none"> • Students understand that a probability is a number between 0 and 1 that represents the likelihood that an event will occur. • Students interpret a probability as the proportion of the time that an event occurs when a chance experiment is repeated many times. <p>Lesson 2</p> <ul style="list-style-type: none"> • Students estimate probabilities by collecting data on an outcome of a chance experiment. • Students use given data to estimate probabilities. <p>Lesson 3</p> <ul style="list-style-type: none"> • Students determine the possible outcomes for simple chance experiments. 	<p>Topic A: Calculating and Interpreting Probabilities</p> <p>Lesson 1 Lesson 2 Lesson 3 Lesson 4 Lesson 5</p> <table border="1" data-bbox="1058 850 1499 1006"> <tr> <td data-bbox="1058 850 1272 1006"> Lesson 6 Lesson 7 </td> <td data-bbox="1272 850 1499 1006"> Omit because they address a standard that is no longer a 7th Grade Math TN Standard. </td> </tr> </table> <p>For Topic A, you may use the resources from the following Teacher Toolbox lessons for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> • Lesson 30: Understand Probability • Lesson 31: Experimental Probability • Lesson 33: Probability of Compound Events <p>Module 5 Topic A Assessment</p>	Lesson 6 Lesson 7	Omit because they address a standard that is no longer a 7th Grade Math TN Standard.	<p>Vocabulary for Module 5: Chance Experiment, Chance Process Event Frequency of an Event Long-Run Relative Frequency Population Probability Probability Model Random Sample Relative Frequency of an Event Sample Sample Space Sample Statistic Statistical Inference Uniform Probability Model</p> <p>Familiar Terms and Symbols for Module 5: Measures of Center Measures of Variability Shape</p>
Lesson 6 Lesson 7	Omit because they address a standard that is no longer a 7th Grade Math TN Standard.				

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	<ul style="list-style-type: none"> Given a description of a simple chance experiment, students determine the sample space for the experiment. Given a description of a chance experiment and an event, students determine for which outcomes in the sample space the event will occur. Students distinguish between chance experiments with equally likely outcomes and chance experiments for which the outcomes are not equally likely. <p>Lesson 4</p> <ul style="list-style-type: none"> Students calculate probabilities of events for chance experiments that have equally likely outcomes. <p>Lesson 5</p> <ul style="list-style-type: none"> Students calculate probabilities for chance experiments that do not have equally likely outcomes. 	<p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as needed.</i></p> <p>Illustrative Math: Tossing Cylinders 7.SP.C.6 Illustrative Math: Rolling Dice 7.SP.C.5, 7.SP.C.6</p>			
<p>Domain: Statistics and Probability Cluster: Investigate chance processes and develop, use and evaluate probability models.</p> <p>➤ 7.SP.C.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.</p> <p>➤ 7.SP.C.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</p>	<p>Essential Questions</p> <ul style="list-style-type: none"> What is the difference between theoretical and experimental probability? How can data collection assist in making predictions about an event? <p>Topic B Objectives:</p> <p>Lesson 8:</p> <ul style="list-style-type: none"> Given theoretical probabilities based on a chance experiment, students describe what they expect to see when they observe many outcomes of the experiment. Students distinguish between theoretical probabilities and estimated probabilities. Students understand that probabilities 	<p>Topic B: Estimating Probabilities</p> <p>Lesson 8 Lesson 9</p> <table border="1" data-bbox="1056 1003 1516 1187"> <tr> <td data-bbox="1056 1003 1289 1187"> Lesson 10 Lesson 11 </td> <td data-bbox="1289 1003 1516 1187"> Omit because they address a standard that is no longer a 7th Grade Math TN Standard. </td> </tr> </table> <p>Lesson 12</p> <p>For Topic B, you may use the resources from the following Teacher Toolbox lesson for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> Lesson 32: Probability Models 	Lesson 10 Lesson 11	Omit because they address a standard that is no longer a 7th Grade Math TN Standard.	
Lesson 10 Lesson 11	Omit because they address a standard that is no longer a 7th Grade Math TN Standard.				

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	<p>can be estimated based on observing outcomes of a chance experiment.</p> <p>Lessons 9:</p> <ul style="list-style-type: none"> Students compare estimated probabilities to those predicted by a probability model. <p>Lesson 12:</p> <ul style="list-style-type: none"> Students use estimated probabilities to judge whether a given probability model is plausible. Students use estimated probabilities to make informed decisions. 	<p>Module 5 Topic B Assessment</p> <p>Mid-Module 5 Assessment & Review of Assessment <i>(Complete by 2/6/19)</i> Mid-Module 5 Alternate Assessment</p> <p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as needed.</i> Illustrative Math: Rolling Dice 7.SP.6, 7.SP.7 Illustrative Math: How Many Buttons 7.SP.C.7.a</p>	
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During the 2016-17 academic year, the Tennessee State Department of Education revised the mathematics standards. While some grades experienced minimal changes, others experienced changes that resulted in the insertion of new content and the omission of current content. This type of change occurred in the 7th grade standards and as a result, some Eureka Math lessons had to be shifted from one grade to another. Below you will notice that there are some 6th grade lessons mixed in with some 7th grade lessons. Please complete the lessons, outlined in the next few sections, in the order listed to ensure consistency in the progression of the standards. For example, after completing Grade 7 Module 5 lessons 13-17, go to Grade 6 Module 6 and complete lessons 6, 8, 10-11. Afterwards, you will go back to Module 5 of grade 7 and complete the next set of lessons.

<p>Domain: Statistics and Probability Cluster: Use random sampling to draw inferences about a population.</p> <p>➤ 7.SP.A.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.</p> <p>➤ 7.SP.A.2 Use data from a random sample to draw inferences about a population with</p>	<p>Essential Questions(s):</p> <ul style="list-style-type: none"> Why is random sampling important when collecting data? What methods can be used to compare information about two populations? <p>Topic C Objectives:</p> <p>Lesson 13:</p> <ul style="list-style-type: none"> Students differentiate between a population and a sample. Students differentiate between a population characteristic and a sample statistic. 	<p>Topic C: Random Sampling and Estimating Population Characteristics</p> <p>Lesson 13 Lesson 14 Lesson 15 Lesson 16 Lesson 17</p> <p>Gr. 6 Module 6 Topic B: Summarizing a Distribution that is Approximately Symmetric Using the Mean and Mean Absolute Deviation Lesson 6 Lesson 8 Lessons 10-11 (Do not include MAD problems. It is no longer addressed in the 7th</p>	
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<p>an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</p> <p>Cluster: Summarize and describe numerical data sets.</p> <ul style="list-style-type: none"> ➤ 7.SP.D.8 (New Standard for 7th Grade) Summarize numerical data sets in relation to their context. ➤ 7.SP.D.8a (New Standard for 7th Grade) Give quantitative measures of center (median and/or mean) and variability (range and/or interquartile range), as well as describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. 	<ul style="list-style-type: none"> • Students investigate statistical questions that involve generalizing from a sample to a larger population. <p>Lesson 14:</p> <ul style="list-style-type: none"> • Students understand that how a sample is selected is important if the goal is to generalize from the sample to a larger population. • Students understand that random selection from a population tends to produce samples that are representative of the population. <p>Lesson 15:</p> <ul style="list-style-type: none"> • Students select a random sample from a population. • Students begin to develop an understanding of sampling variability. <p>Lesson 16:</p> <ul style="list-style-type: none"> • Students select a random sample from a population. • Given a description of a population, students design a plan for selecting a random sample from that population. <p>Lesson 17:</p> <ul style="list-style-type: none"> • Students use data from a random sample to estimate a population mean. • Students understand the term <i>sampling variability</i> in the context of estimating a population mean. <p>Gr. 6 Module 6 Topic B:</p> <p>Lesson 6</p> <ul style="list-style-type: none"> • Students describe the center of a data distribution using a fair share value called the mean. • Students connect the fair share concept with the mathematical formula for finding the mean. 	<p>grade TN Math Standards)</p> <p>Gr. 7 Module 5 Topic C: Random Sampling and Estimating Population Characteristics</p> <p>Lesson 18 Lesson 19 Lesson 20</p> <p>For Topic C, you may use the resources from the following Teacher Toolbox lessons for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> • Lesson 26: Understand Random Samples • Lesson 27: Making Statistical Inferences <p>Grade 7 Module 5 Topic C Assessment</p> <p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as needed.</i></p> <p>Illustrative Math: Valentine Marbles 7.SP.A.2 Illustrative Math: Mr. Briggs's Class Likes Math 7.SP.A.1 Illustrative Math: Puzzle Time 7.SP.D.8 & 8a Illustrative Math: Mean or Median 6.SP.B.5d</p> <p>Reminder: <i>It is recommended that teachers begin preparing for Module 6 by 2/25/19.</i></p>	
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	<p>Lesson 8</p> <ul style="list-style-type: none">• Students interpret the mean of a data set as a typical value.• Students compare and contrast two small data sets that have the same mean but differ in variability.• Students see that a data distribution is not characterized only by its center. Students also consider variability (spread) when describing a data distribution.• Students informally evaluate how precise the mean is as an indicator of a typical value for a distribution, based on the variability in the data.• Students use dot plots to order data distributions according to the variability around the mean of the data distribution. <p>Lessons 10-11</p> <ul style="list-style-type: none">• Students calculate the mean and MAD for a data distribution.• Students use the mean and MAD to describe a data distribution in terms of center and variability <p>Gr. 7 Module 5 Topic C</p> <p>Lesson 18:</p> <ul style="list-style-type: none">• Students use data from a random sample to estimate a population mean.• Students know that increasing the sample size decreases the sampling variability of the sample mean. <p>Lesson 19:</p> <ul style="list-style-type: none">• Students understand the term <i>sampling variability</i> in the context of estimating a population proportion.• Students know that increasing the sample size decreases sampling variability.		
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■ Major Content

➤ Supporting Content



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	<p>Lesson 20:</p> <ul style="list-style-type: none"> Students use data from a random sample to estimate a population proportion. 		
<p>Domain: Statistics and Probability Cluster: Summarize and describe numerical data sets.</p> <p>➤ 7.SP.D.8b Know and relate the choice of measures of center (median and/or mean) and variability (range and/or interquartile range) to the shape of the data distribution and the context in which the data were gathered.</p> <p>Cluster: Draw informal comparative inferences about two populations.</p> <p>➤ 7.SP.B.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team; on a dot plot or box plot, the separation between the two distributions of heights is noticeable.</p> <p>➤ 7.SP.B.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two</p>	<p>Essential Questions(s):</p> <ul style="list-style-type: none"> What methods can be used to compare information about two populations? How can you determine variability for quantitative data? <p>Gr. 6 Module 6 Topic C: Topic C Objectives:</p> <p>Lesson 12:</p> <ul style="list-style-type: none"> Given a data set, students determine the median of the data. <p>Lesson 13:</p> <ul style="list-style-type: none"> Given a set of data, students describe how the data might have been collected. Students describe the unit of measurement for observations in a data set. Students calculate the median of the data and describe the variability in the data by calculating the interquartile range. <p>Lesson 14:</p> <ul style="list-style-type: none"> Students construct a box plot from a given set of data. <p>Lesson 15:</p> <ul style="list-style-type: none"> Given a box plot, students estimate the values that make up the five-number summary (Minimum, Q1, Median, Q3, Maximum). Students describe a data set using the five-number summary and the interquartile 	<p>Gr. 6 Module 6 Topic C: Summarizing a Distribution That Is Skewed Using the Median and the Interquartile Range</p> <p>Lesson 12 Lesson 13 Lesson 14 Lesson 15 Lesson 16</p> <p>Gr. 7 Module 5 Topic D: Comparing Populations</p> <p>Lesson 21 Lesson 22 Lesson 23 Omit</p> <p>You may use the resources from the following Teacher Toolbox lessons for review, remediation, and/or assessment to meet the needs of your students.</p> <ul style="list-style-type: none"> Lesson 28: Find Measures of Center and Variability Lesson 29: Use Measures of Center and Variability to Compare Data <p>Grade 7 Module 5 Topic D Assessment</p> <p>End of Module 5 Assessment & Review of Assessment</p>	<p>Vocabulary Sample Statistic Mean Absolute Deviation (MAD) Measures of Center Measures of Variability</p>

■ Major Content

➤ Supporting Content



Curriculum and Instruction – Mathematics

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<p>populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p>	<p>range.</p> <ul style="list-style-type: none"> Students construct a box plot from a five-number summary. <p>Lesson 16:</p> <ul style="list-style-type: none"> Students summarize a data set using box plots, the median, and the interquartile range. Students use box plots to compare two data distributions. <p>Gr. 7 Module 5 Topic D</p> <p>Lesson 21:</p> <ul style="list-style-type: none"> Students understand that a <i>meaningful</i> difference between two sample means is one that is greater than would have been expected due to just sampling variability. <p>Lesson 22:</p> <ul style="list-style-type: none"> Students express the difference in sample means as a multiple of a measure of variability. Students understand that a difference in sample means provides evidence that the population means are different if the difference is larger than what would be expected as a result of sampling variability alone. 	<p>(Complete by 3/8/19) Module 5 EOM Alternate Assessment</p> <p>Additional Resources: <i>These optional resources may be used for extension, enrichment and/or additional practice, as needed.</i></p> <p>Illustrative Math: Math Homework Problems 7.SP.D.8b Illustrative Math: Mean or Median 7.SP.D.8b Illustrative Math: College Athletes 7.SP.B.3 & 4 Illustrative Math: Offensive Linemen 7.SP.B.3 & 4</p>	
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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.

<p>Textbook Resources www.greatminds.org Eureka Math Grade 7 Remediation Guide</p>	<p>Standards Support TN Math Standards Grade 7 Instructional Focus Document Achieve the Core Edutoolbox</p>	<p>Videos Learn Zillion Khan Academy</p>
<p>Calculator Activities TI-73 Activities CASIO Activities TI-Inspire for Middle Grades</p>	<p>Interactive Manipulatives Glencoe Virtual Manipulatives National Library of Interactive Manipulatives</p>	<p>Additional Sites Embarc Online PBS: Grades 6-8 Lesson Plans Grade 7 Flip Book (This book contains valuable resources that help develop the intent, the understanding and the implementation of the state standards.)</p>



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Shelby County Schools – Grade 7 - 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 Module 4 Lesson 12 Prepare for Module 5	10	11	
14	15	16	17 End-of Module 4 Assessment & Review of Assessment	18 End-of Module 4 Assessment & Review of Assessment	
21 ML King's Holiday	22	23 Begin Module 5	24	25	
28	29	30	31		

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➤ Supporting Content

SCS 2018/2019
Revised 6/26/18 csh



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Shelby County Schools – Grade 7 - February 2019

Mon	Tue	Wed	Thu	Fri	
				1	
4	5 Mid-Module 5 Assessment & Review of Assessment	6 Mid-Module 5 Assessment & Review of Assessment	7	8	
11	12	13	14	15	
18 President's Day	19	20	21	22	
25 Prepare for Module 6	26	27	28		

■ Major Content

➤ Supporting Content

SCS 2018/2019
Revised 6/26/18 csh



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Shelby County Schools – Grade 7 - March 2019					
Mon	Tue	Wed	Thu	Fri	
				1	
4	5	6	7 End-of Module 5 Assessment & Review of Assessment	8 Q3 Ends End-of Module 5 Assessment & Review of Assessment	
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	

■ Major Content

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