Introduction

In 2014, the Shelby County Schools Board of Education adopted a set of ambitious, yet attainable goals for school and student performance. The District is committed to these goals, as further described in our strategic plan, Destination2025. **By 2025,**

* **80% of our students will graduate from high school college or career ready**
* **90% of students will graduate on time**
* **100% of our students who graduate college or career ready will enroll in a post-secondary opportunity**

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. College and career readiness is rooted in the knowledge and skills students need to succeed in post-secondary study or careers. The TN State Standards 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.

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. To reach our collective student achievement goals, we know that teachers must change their practice so that it is in alignment with the three mathematics instructional shifts.

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:

|  |
| --- |
| The TN Mathematics Standards |
| The Tennessee Mathematics Standards:<https://www.tn.gov/education/article/mathematics-standards> | Teachers can access the Tennessee State standards, which are featured throughout this curriculum map and represent college and career ready learning at reach respective grade level. |
|  Standards for Mathematical Practice |
| Standards for Mathematical Practices (MP)<https://drive.google.com/file/d/0B926oAMrdzI4RUpMd1pGdEJTYkE/view> | Teachers can access the Mathematical Practice Standards, which are featured throughout this curriculum map. This link contains more a more detailed explanation of each practice along with implications for instructions. |

**Purpose of Mathematics Curriculum Maps**

The Shelby County Schools curriculum maps are intended to guide planning, pacing, and sequencing, reinforcing the major work of the grade/subject. Curriculum maps are NOT meant to replace teacher preparation or judgment; however, it does serve as a resource for good first teaching and making instructional decisions based on best practices, and student learning needs and progress. Teachers should consistently use student data differentiate and scaffold instruction to meet the needs of students. The curriculum maps should be referenced each week as you plan your daily lessons, as well as daily when instructional support and resources are needed to adjust instruction based on the needs of your students.

**Additional Instructional Support**

The curriculum maps continue to provide references to envision lessons that support covered standards.  Since this resource was developed for previous TN State Standards, it was necessary to evaluate and provide additional resources to support teachers and students. The 2016-17 Curriculum Maps include the addition of the open resource curriculum that can be found at engageny.org. The curriculum and resources developed by Great Minds for engageny have consistently been rated as “exemplifying quality” by districts and organizations across the country, meaning they are highly aligned to college and career standards and instructional shifts.

**How to Use the Mathematics Curriculum Maps**

**Tennessee State Standards**

TN State Standards are located in the left column. Each content standard is identified as the following: Major Work, Supporting Content or Additional Content.; a key can be found at the bottom of the map. The major work of the grade should comprise 65-85% of your instructional time. Supporting Content are standards the supports student’s learning of the major work. Therefore, you will see supporting and additional standards taught in conjunction with major work It is the teachers' responsibility to examine the standards and skills needed in order to ensure student mastery of the indicated standard.

**Content**

Weekly and daily objectives/learning targets should be included in you plans. These can be found under the column titled content. The enduring understandings will help clarify the “big picture” of the standard. The essential questions break that picture down into smaller questions and the learning targets/objectives provide specific outcomes for that standard(s). Best practices tell us that making objectives measureable increases student mastery.

**Instructional Support and Resources**

District and web-based resources have been provided in the Instructional Support and Resources column. The additional resources provided are supplementary and should be used as needed for content support and differentiation. In order to assist with planning, a list of fluency activities have been included for each lesson. It is expected that fluency practice will be a part of 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.)

**Grade 3 Quarter 1 Overview**

[Module 1](https://www.engageny.org/resource/grade-3-mathematics-module-1): Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10

[Module 2](https://www.engageny.org/resource/grade-3-mathematics-module-2): Place Value and Problem Solving with Units of Measure

**Overview**

**Module 1** begins the year by building on students’ fluency with addition and their knowledge of arrays. In **Topic A**, students initially use repeated addition to find the total from a number of equal groups (**2.OA.4**). As students notice patterns, they let go of longer addition sentences in favor of more efficient multiplication facts (**3.OA.1**). Lessons in Topic A move students’ Grade 2 work with arrays and repeated addition a step further by developing skip-counting rows as a strategy for multiplication. Arrays become a cornerstone of the module. Students use the language of multiplication, as they understand what factors are and differentiate between the size of groups and the number of groups within a given context. In this module, the factors 2, 3, 4, 5, and 10 provide an entry point for moving into more difficult factors in later modules.

The study of factors links Topics A and B; **Topic B** extends the study to division. Students understand division as an unknown factor problem and relate the meaning of unknown factors to either the number or the size of groups (**3.OA.2**, **3.OA.6**). By the end of Topic B, students are aware of a fundamental connection between multiplication and division that lays the foundation for the rest of the module.

In **Topic C**, students use the array model and familiar skip-counting strategies to solidify their understanding of multiplication and practice related facts of 2 and 3. They become fluent enough with arithmetic patterns to *add* or *subtract* groups from known products to solve more complex multiplication problems (**3.OA.1**). They apply their skills to word problems using drawings and equations with a symbol to find the unknown factor (**3.OA.3**). This culminates in students using arrays to model the distributive property as they decompose units to multiply (**3.OA.5).**

In **Topic D**, students model, write, and solve partitive and measurement division problems with 2 and 3 (**3.OA.2**). Consistent skip-counting strategies and the continued use of array models are pathways for students to naturally relate multiplication and division. Modeling advances as students use tape diagrams to represent multiplication and division. A final lesson in this topic solidifies a growing understanding of the relationship between operations (**3.OA.7**).

**Topic E** shifts students from simple understanding to analyzing the relationship between multiplication and division. Practice of both operations is combined—this time using units of 4—and a lesson is explicitly dedicated to modeling the connection between them (**3.OA.7**). Skip counting, the distributive property, arrays, number bonds, and tape diagrams are tools for both operations (**3.OA.1**, **3.OA.2**). A final lesson invites students to explore their work with arrays and related facts through the lens of the commutative property as it relates to multiplication (**3.OA.5**)

**Topic F** introduces the factors 5 and 10, familiar from skip counting in Grade 2. Students apply the multiplication and division strategies they have used to mixed practice with all of the factors included in Module 1 (**3.OA.1, 3.OA.2**, **3.OA.3**). Students model relationships between factors, analyzing the arithmetic patterns that emerge to compose and decompose numbers, as they further explore the relationship between multiplication and division (**3.OA.3**, **3.OA.5**, **3.OA.7**).

In the final lesson of the module, students apply the tools, representations, and concepts they have learned to problem solving with multi-step word problems using all four operations (**3.OA.3,** **3.OA.8**). They demonstrate the flexibility of their thinking as they assess the reasonableness of their answers for a variety of problem types.

**Module 2** In this module, students explore measurement using kilograms, grams, liters, milliliters, and intervals of time in minutes. Students begin by learning to tell and write time to the nearest minute using analog and digital clocks in **Topic A** (**3.MD.1**). They understand time as a continuous measurement through exploration with stopwatches, and use the number line, a continuous measurement model, as a tool for counting intervals of minutes within 1 hour (**3.MD.1**). Students see that an analog clock is a portion of the number line shaped into a circle. They use both the number line and clock to represent addition and subtraction problems involving intervals of minutes within 1 hour (**3.MD.1**).

Introduced in **Topic B**, kilograms and grams are measured using digital and spring scales. Students use manipulatives to build a kilogram and then decompose it to explore the relationship between the size and weight of kilograms and grams (**3.MD.2**). An exploratory lesson relates metric weight and liquid volume measured in liters and milliliters, highlighting the coherence of metric measurement. Students practice measuring liquid volume using the vertical number line and a graduated beaker (**3.MD.2**). Building on the estimation skills with metric length gained in Grade 2, students in Grade 3 use kilograms, grams, liters, and milliliters to estimate the weights and liquid volumes of familiar objects. Finally, they use their estimates to reason about solutions to one-step addition, subtraction, multiplication, and division word problems involving metric weight and liquid volume given in the same units (**3.MD.2**).

Now more experienced with measurement and estimation using different units and tools, students further develop their skills by learning to round in **Topic C** (**3.NBT.1**). They measure and then use place value understandings and the number line as tools to round two-, three-, and four-digit measurements to the nearest ten or hundred (**3.NBT.1**, **3.MD.1**, **3.MD.2**).

Students measure and round to solve problems in **Topics D and E** (**3.NBT.1**, **3.MD.1**, **3.MD.2**). In these topics, they use estimations to test the reasonableness of sums and differences precisely calculated using standard algorithms. From their work with metric measurement, students have a deeper understanding of the composition and decomposition of units. They demonstrate this understanding in every step of the addition and subtraction algorithms with two- and three-digit numbers, as 10 units are changed for 1 larger unit or 1 larger unit is changed for 10 smaller units (**3.NBT.2**). Both topics end in problem solving involving metric units or intervals of time. Students round to estimate and then calculate precisely using the standard algorithm to add or subtract two- and three-digit measurements given in the same units (**3.NBT.1, 3.NBT.2**, **3.MD.1**, **3.MD.2**).

|  |  |  |
| --- | --- | --- |
| Grade Level Standard | Type of Rigor | Foundational Standards |
| 3.OA.1 | Conceptual | 2.OA.3, 2.OA.4 |
| 3.OA.2 | Conceptual | 3.OA.1 |
| 3.OA.3 | Application | 3.OA.1, 3.OA.2 |
| 3.OA.4 | Conceptual | Introductory |
| 3.OA.5 | Application | 3.OA.1, 3.OA.2 |
| 3.OA.6 | Conceptual | Introductory |
| 3.OA.7 | Procedural Skill and Fluency | 3.OA.5, 3.OA.6 |
| 3.OA.8 | Application | 2.OA.1, 3.OA.3 |
| 3.NBT.1 | Conceptual/ Procedural Skill and Fluency | 2.NBT.1, 2.NBT.2, 1.NBT.2 |
| 3.NBT.2 | Procedural Skill and Fluency | 2.NBT.7, 2.NBT.8, 2.NBT.1 |
| 3.MD.1 | Procedural Skill and Fluency | Introductory |
| 3.MD.2 | Procedural Skill and Fluency | Introductory |

**Fluency**

**NCTM Position**

Procedural fluency is a critical component of mathematical proficiency. Procedural fluency is the ability to apply procedures accurately, efficiently, and flexibly; to transfer procedures to different problems and contexts; to build or modify procedures from other procedures; and to recognize when one strategy or procedure is more appropriate to apply than another. To develop procedural fluency, students need experience in integrating concepts and procedures and building on familiar procedures as they create their own informal strategies and procedures. Students need opportunities to justify both informal strategies and commonly used procedures mathematically, to support and justify their choices of appropriate procedures, and to strengthen their understanding and skill through distributed practice.

Fluency is designed to promote automaticity by engaging students in daily practice. Automaticity is critical so that students avoid using lower-level skills when they are addressing higher-level problems. The automaticity prepares students with the computational foundation to enable deep understanding in flexible ways. Therefore, it is recommended that students participate in ***fluency practice daily*** using the resources provided in the curriculum maps. Special care should be taken so that it is not seen as punitive for students that might need more time to master fluency.

The fluency standard for 3rd grade listed below should be incorporated throughout your instruction over the course of the school year. The engageny  lessons include fluency exercises that can be used in conjunction with building conceptual understanding.

 ■ 3.OA.C.7 Multiply/Divide within 100 (Know single digit products from memory)

* 3.NBT.A.2 Add/Subtract within 1000

Note: Fluency is only one of the three required aspects of rigor. Each of these components have equal importance in a mathematics curriculum.

**References:**

* [***https://www.engageny.org/***](https://www.engageny.org/)
* [***http://www.corestandards.org/***](http://www.corestandards.org/)
* [***http://www.nctm.org/***](http://www.nctm.org/Standards-and-Positions/Position-Statements/Procedural-Fluency-in-Mathematics/)
* [**http://achievethecore.org/**](http://achievethecore.org/)

| **TN STATE STANDARDS** | **CONTENT** | **INSTRUCTIONAL SUPPORT & RESOURCES** |
| --- | --- | --- |
| **Module 1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10** **(Allow 6 weeks for instruction, review and assessment)** |
| **Domain:** Operations and Algebraic Thinking**Cluster** 3.OA.A: Represent and solve Problems involving multiplication and division.■ [**3.OA.1**](http://www.corestandards.org/Math/Content/3/OA/) Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.* ■ [**3.OA.2**](http://www.corestandards.org/Math/Content/3/OA/)Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.* ■ [**3.OA.3**](http://www.corestandards.org/Math/Content/3/OA/) Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ■ [**3.OA.4**](http://www.corestandards.org/Math/Content/3/OA/)Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = \_ ÷ 3, 6 × 6 =?* **Domain**: Operations and Algebraic Thinking**Cluster:** 3.OA.B Understand properties of multiplication and the relationship between multiplication and division.■ [**3.OA.5**](http://www.corestandards.org/Math/Content/3/OA/)Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.) *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)3* ■ [**3.OA.6**](http://www.corestandards.org/Math/Content/3/OA/) Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.* **Domain**: Operations and Algebraic Thinking**Cluster:** 3.OA.C Multiply and divide within 100.■ [**3.OA.7**](http://www.corestandards.org/Math/Content/3/OA/)Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.**Domain**: Operations and Algebraic Thinking**Cluster: 3.OA.D** Solve problems involving the four operations, and identify and explain patterns in arithmetic■ [**3.OA.8**](http://www.corestandards.org/Math/Content/3/OA/)Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order, i.e., Order of Operations.)  | **Enduring Understandings*** Some real-world problems involving joining or separating equal groups or comparison can be solved using multiplication.
* Repeated addition involves joining equal groups and is one way to think about multiplication.
* An array involves joining equal groups and is one way to think about multiplication.
* Mathematical explanations can be given using words, pictures, numbers, or symbols. A good explanation should be correct, simple, complete, and easy to understand.
* Sharing involves separating equal groups and is the one way to think about division.

**Essential Questions*** How can you find the total number of objects in equal groups?
* What are arrays, and how do they show multiplication?
* How do you write a good mathematical explanation
* How can you think of division as sharing?

**Objectives/Learning Targets:** **Topic A****Lesson 1:** I can understand *equal groups of* as multiplication. **(3.0A.1,** 3.OA.3**)****Lesson 2:** I can relate multiplication to the array model. **(3.0A.1,** 3.OA.3**)****Lesson 3:** I can interpret the meaning of factors ─ the size of the group or the number of groups. **(3.0A.1,** 3.OA.3**)** | Allow the first two days to develop classroom math routines and habits that will contribute to student’s future success in mathematics. Please refer to the First Week Lesson Guide for suggestions/examples of Number Talks, Quick Writes, Accountable Talk Moves/Stems, and Mathematical Discussions/Math Messages, which are designed to allow students to develop expertise with the eight Mathematical Practices early in the school year.engageny [**Module 1:**](https://www.engageny.org/resource/grade-3-mathematics-module-1) **Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10**[**Topic A:**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-overview) **Multiplication and the Meaning of Factors**[**Lesson 1**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-lesson-1)[**Lesson 2**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-lesson-2)[**Lesson 3**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-lesson-3)**Videos:*** [**Solve multiplication problems using arrays**](https://www.youtube.com/watch?v=iDXH9tfVqAI&feature=em-share_video_user)
* [**Interpreting products as whole numbers**](https://www.youtube.com/watch?v=cBJ9c7Ywh0M&feature=em-share_video_user)
* [**Interpret products by using repeated addition**](https://learnzillion.com/lessons/2993-interpret-products-using-repeated-addition)
* [**Interpret products by using arrays**](https://learnzillion.com/lessons/3083-interpret-products-using-arrays)
 | **Vocabulary**Array, Commutative Property, Equal groups, Distribute, Divide/Division, Factors, Multiplication/Multiply, Number of Groups, Parentheses, Product, Quotient, Rotate, Row/Column, Size of Groups, Unit, Unknown, Equation, Number Sentence,Familiar Terms and SymbolsAdd 1 unit, subtract 1 unit, Expression, Number bond, Units of one, two, or three, Repeated Addition, Tape Diagram, Value**Fluency Practice:**Please see engageNY [full module download](https://www.engageny.org/resource/grade-3-mathematics-module-1) for suggested fluency pacing and activities. **Lesson 1**- Group Counting **Lesson 2**- Sprint: Add and Subtract by 2 Group Counting  Add Equal Groups **Lesson 3-** Sprint: Add Equal Groups Group Counting  Add to Multiply  |
| **Objectives/Learning Targets:** **Topic B****Lesson 4:** I canunderstand the meaning of the unknown as the size of the group in division. **(3.OA.2, 3.OA.6,** 3.OA.3, 3.OA.4)**Lesson 5:** I canunderstand the meaning of the unknown as the number of groups in division. **(3.OA.2, 3.OA.6,** 3.OA.3, 3.OA.4)**Lesson 6:** I caninterpret the unknown in division using the array model. **(3.OA.2, 3.OA.6,** 3.OA.3, 3.OA.4) | [**Topic B:**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-b-overview) **Division as an Unknown Factor Problem**[**Lesson 4**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-b-lesson-4)[**Lesson 5**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-b-lesson-5)[**Lesson 6**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-b-lesson-6)**Videos:*** [**Interpret division as an unknown factor problem using arrays**](https://learnzillion.com/lessons/1742-interpret-division-as-an-unknown-factor-problem-using-arrays)
* [**Interpret division as an unknown factor problem using fact families**](https://learnzillion.com/lessons/1743-interpret-division-as-an-unknown-factor-problem-using-fact-families)
 | **Fluency Practice:****Lesson 4-** Group Counting  Array Multiplication  Sprint: Repeated Addition as Multiplication**Lesson 5-** Group Counting  Divide Equal Groups **Lesson 6-** Group Counting  Divide Equal Groups  |
| **Objectives/Learning Targets:** **Topic C****Lesson 7:** I candemonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models. **(3.OA.1, 3.OA.5,** 3.OA.3, 3.OA.4**)****Lesson 8:** I candemonstrate the commutativity of multiplication and practice related facts by skip-counting objects in array models. . **(3.OA.1, 3.OA.5,** 3.OA.3, 3.OA.4**)****Lesson 9**: I canfind related multiplication facts by adding and subtracting equal groups in array models. . **(3.OA.1, 3.OA.5,** 3.OA.3, 3.OA.4**)****Lesson 10**: I canmodel the distributive property with arrays to decompose units as a strategy to multiply. **(3.OA.1, 3.OA.5,** 3.OA.3, 3.OA.4**)** | [**Topic C:**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-c-overview) **Multiplication Using Units of 2 and 3**[**Lesson 7**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-c-lesson-7)[**Lesson 8**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-c-lesson-8)[**Lesson 9**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-c-lesson-9)[**Lesson 10**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-c-lesson-10)[**Mid-Module Assessment**](https://www.engageny.org/resource/grade-3-mathematics-module-1)**Videos:*** [**Understand the commutative property by naming arrays**](https://learnzillion.com/lessons/963-understand-the-commutative-property-by-naming-arrays)
* [**Understand multiplication and division relationships**](https://learnzillion.com/lessons/965-understand-multiplication-and-division-relationships)
 | **Fluency Practice:****Lesson 7-** Group Counting  Divide Equal Groups  Multiply with Twos **Lesson 8-** Group Counting **Lesson 9-** Multiply by 2  Group Counting  Forms of Multiplication **Lesson 10-** Multiply by 2  Group Counting  |
| **Topic D****Lesson 11:** I canmodel division as the unknown factor in multiplication using arrays and tape diagrams. **(3.OA.2, 3.OA.4,** **3.OA.6, 3.OA.7**, 3.OA.3, 3.OA.4**)****Lesson 12 & 13:** I caninterpret the quotient as the number of groups or the number of objects in each group using units of 2 and 3.**(3.OA.1, 3.OA.5,** 3.OA.3, 3.OA.4**)** | [**Topic D**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-d-overview)**: Division Using Units of 2 and 3**[**Lesson 11**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-d-lesson-11)[**Lesson 12**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-d-lesson-12) **&** [**Lesson 13**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-d-lesson-13)**Videos:**[**Find the missing quotient in a division problem**](https://learnzillion.com/lessons/1474-find-the-missing-quotient-in-a-division-problem) | **Fluency Practice:****Lesson 11**- Multiply by 2  Group Counting **Lesson 12 & 13** - Multiply by 2  Group Counting  Divide  Sprint: Divide by 2 |
| **Objectives/Learning Targets:** **Topic E****Lesson 14:** I canskip-Count objects in models to build fluency with multiplication facts using units of 4. **(3.OA.5, 3.OA.7,** 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6**)****Lesson 15:** I canrelate arrays to tape diagrams to model the commutative property of multiplication. **(3.OA.5, 3.OA.7,** 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6**)****Lesson 16:** I canuse the distributive property as a strategy to find related multiplication facts. **(3.OA.5, 3.OA.7,** 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6**)** **Lesson 17:** I canmodel the relationship between multiplication and division. **(3.OA.5, 3.OA.7,** 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.6**)** | [**Topic E:**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-e-overview) **Multiplication and Division Using Units of 4**[**Lesson 14**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-e-lesson-14)[**Lesson 15**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-e-lesson-15)[**Lesson 16**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-e-lesson-16)[**Lesson 17**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-e-lesson-17)**Videos:*** [**Solve multiplication problems: using skip counting**](https://learnzillion.com/lessons/39-solve-multiplication-problems-using-skip-counting)
* [**Use the distributive property of multiplication to solve unfamiliar facts**](https://learnzillion.com/lessons/966-use-the-distributive-property-of-multiplication-to-solve-unfamiliar-facts)
 | **Fluency Practice:****Lesson 14-** Sprint: Divide by Threes  Read Tape Diagrams **Lesson 15-** Multiply by 4  Group Counting **Lesson 16**- Multiply by Four  Group Counting  Read Tape Diagrams **Lesson 17-** Sprint: Divide by 4  |
| **Objectives/Learning Targets:** **Topic F****Lesson 18:** I canapply the distributive property to decompose units. **(3.OA.3, 3.OA.5,** **3.OA.7, 3.OA.8**, 3.OA.1, 3.OA.2, 3.OA.4, 3.OA.6**)****Lesson 19:** I canapply the distributive property to decompose units. **(3.OA.3, 3.OA.5,** **3.OA.7, 3.OA.8**, 3.OA.1, 3.OA.2, 3.OA.4, 3.OA.6**)****Lesson 20:** I cansolve two-step word problems involving multiplication and division and assess the reasonableness of answers. **(3.OA.3, 3.OA.5,** **3.OA.7, 3.OA.8**, 3.OA.1, 3.OA.2, 3.OA.4, 3.OA.6**)****Lesson 21:** I cansolve two-step word problems involving all four operations and assess the reasonableness of answers. **(3.OA.3, 3.OA.5,** **3.OA.7, 3.OA.8**, 3.OA.1, 3.OA.2, 3.OA.4, 3.OA.6**)** | [**Topic F:**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-f-overview) **Distributive Property and Problem Solving Using Units of 2-5 and 10**[**Lesson 18**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-f-lesson-18)[**Lesson 19**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-f-lesson-19)[**Lesson 20**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-f-lesson-20)[**Lesson 21**](https://www.engageny.org/resource/grade-3-mathematics-module-1-topic-f-lesson-21)[**End-of Module Assessment**](https://www.engageny.org/resource/grade-3-mathematics-module-1)**Videos:*** [**Use the distributive property of multiplication to solve unfamiliar facts**](https://learnzillion.com/lessons/966-use-the-distributive-property-of-multiplication-to-solve-unfamiliar-facts)
* [**Understand multiplication problems: matching equations to real-world examples**](https://learnzillion.com/lessons/37-understand-multiplication-problems-matching-equations-to-realworld-examples)
* [**Solve two-step word problems using a model**](https://learnzillion.com/lessons/1523-solving-twostep-word-problems-using-a-model)
 | **Fluency Practice:****Lesson 18**- Sprint: Add and Subtract by 5**Lesson 19-** Group Counting  Commutative Multiplying **Lesson 20-** Sprint: Skip Count by Fives **Lesson 21-** Group Counting  Multiply by 5  Commutative Multiplying  |
|  | **enVision Resource:** (enVision may be used to support the needs of your students, but should not be used independently.)5-1 Number Sense: Multiplication as Repeated Addition5-2 Number Sense: Arrays and Multiplication5-3 Number Sense: Using Multiplication to Compare5-4 Number Sense: Writing Multiplication Stories5-5 Problem solving: Writing to Explain5-6 Multiplication: 2 and 5 as Factors5-7 Multiplication: 10 as a Factor5-8 Multiplication: 9 as a Factor5-9 Multiplication: Multiplying with 0 and 15-10 Multiplication: Problem Solving: Two-Question Problems 7-1 Number Sense: Division as Sharing8-1 Division: Relating Multiplication and Division8-2 Division: Fact Families with 2, 3, 4, and 5**Task Bank:** [3rd Grade Task: Math Family Night](http://tncore.org/sites/www/Uploads/Math_Tasks_July2013/Grade%203%2C%20math%20family%20night.pdf) (3.OA.A.1, 3.OA.A.3, 3.OA.B.6)  [3rd Grade Task: Matthew's Dilemma](http://tncore.org/sites/www/Uploads/Math_Tasks_July2013/Grade%203%2C%20Matthew_s%20dilemma.pdf) (3.OA.A.1, 3.OA.A.2, 3.OA.A.3, 3.OA.B.5)  [3rd Grade Task: Field Trip](http://tncore.org/sites/www/Uploads/files/tasks/3/Field%20Trip%20Task%20Gr%203.pdf) (3.OA.A.1, 3.OA.A.2, 3.OA.A.3, 3.OA.B.5) **I-Ready Lessons:*** Understand Multiplication, Part 1 & 2
* Multiplication Concepts: Equal Groups
* Multiplication Sentences and Equal Groups
* Multiplication Concepts: Arrays
* Understand Division Part 1 & 2
* Division Concepts: Sharing Equal Groups
* Multiplication and division Fact families
 | **Literature Connections** From Addition to Multiplication, Jerry Pallotta Amanda Bean’s Amazing Dream, Cindy Centipede’s 100 Shoes, Tony Ross Six Dinner Sid, Inga Moore Monster Math, Polly Powell The Multiplying Menace, Pam Calvert One Hundred Hungry Ants, Elinor Pinczes Millions of Cats, Wanda Gag Bigger, Better, BEST! Stuart Murphy The Doorbell Rang, Pat HutchinsEach Orange had 8 Slices, Paul GigantiA Place for Zero, Angeline LoprestiSlowpoke, Lucille Recht Penner**Other:**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)](http://greatminds.net/maps/math/pacing-guides) |
| **Module 2 Place Value and Problem Solving with Units of Measure** **(Allow 3-4 weeks for instruction, review and assessment)** |
| **Domain:** Number Operations and Base Ten**Cluster 3.OA.A:** Represent and solve Problems involving multiplication and division.* [**3.NBT.1**](http://www.corestandards.org/Math/Content/3/NBT/) Use place value understanding to round whole numbers to the nearest 10 or 100.
* [**3.NBT.2**](http://www.corestandards.org/Math/Content/3/NBT/) Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

**Domain:** Measurement and Data**Cluster: 3.MD** Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. ■ [**3.MD.1**](http://www.corestandards.org/Math/Content/3/MD/) Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.■ [**3.MD.2**](http://www.corestandards.org/Math/Content/3/MD/) Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.  | **Enduring Understandings*** Capacity is a measure of the amount of liquid a container can hold.
* Time can be expressed using different units that are related to each other.
* There are different units for measuring time. Many clock times can be expressed in more than one way.

**Essential Questions*** How can you estimate and measure capacity?
* How can you show time?
* Is there more than one way to show time?
* How do we solve problems when the beginning information is unknown?

**Objectives/Learning Targets:****Topic A****Lesson 1**: I can explore time as a continuous measurement using a stopwatch. **(3.NBT.2, 3.MD.1)****Lesson 2:** I can relate skip counting by 5 on the clock and telling time to a continuous measurement model, the number line. **(3.NBT.2, 3.MD.1)****Lesson 3**: I can count by fives and ones on the number line as a strategy to tell time to the nearest minute on the clock. **(3.NBT.2, 3.MD.1)****Lesson 4**: I can solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock. **(3.NBT.2, 3.MD.1)****Lesson 5**: I can Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line. **(3.NBT.2, 3.MD.1)** | engageny [Module 2](https://www.engageny.org/resource/grade-3-mathematics-module-2) Place Value and Problem Solving with Units of Measure[**Topic A**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-overview)**: Time Measurement and Problem Solving**[**Lesson 1**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-lesson-1)[**Lesson 2**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-lesson-2)[**Lesson 3**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-lesson-3)**:**[**Lesson 4**:](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-lesson-4) [**Lesson 5**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-lesson-5)**:** **Videos:** * [**Identifying the start time, change of time, and end time in real-world elapsed time problems**](https://learnzillion.com/lessons/575-identifying-the-start-time-change-of-time-and-end-time-in-realworld-elapsed-time-problems)
* [**Solving elapsed time word problems to the nearest hour**](https://learnzillion.com/lessons/576-solving-elapsed-time-word-problems-to-the-nearest-hour)
* [**Solving elapsed time word problems to the nearest five minutes**](https://learnzillion.com/lessons/577-solving-elapsed-time-word-problems-to-the-nearest-five-minutes)
* [**Solving elapsed time word problems to the nearest minute**](https://learnzillion.com/lessons/578-solving-elapsed-time-word-problems-to-the-nearest-minute)
 | **Vocabulary**About, Addend, Capacity, Continuous, Endpoint2, Interval, Halfway, Kilogram, Liquid volume, Liter, Milliliter, Plot, Reasonable, Round3, Second, Standard algorithm, ≈ Familiar Terms and SymbolsAnalog clock, Centimeter, Compose, Divide, Estimate, Horizontal, Measure, Mental math, Meter, Minute, Multiply, Number line, Rename, Simplifying strategy, Unbundle, Vertical **Fluency Practice:**Please see [engageNY full module download](https://www.engageny.org/resource/grade-3-mathematics-module-2) for suggested fluency pacing and activities. **Lesson 1-** Group CountingTell Time on the ClockMinute Counting**Lesson 2-** Group CountingTell Time on the ClockMinute Counting**Lesson 3-** Group CountingTell Time on the ClockMinute CountingDecompose**Lesson 4-** Group CountingTell Time on the ClockMinute Counting**Lesson 5-** Group CountingTell Time on the ClockMinute Counting |
| **Objectives/Learning Targets:** **Topic B****Lesson 6:** I canBuild and decompose a kilogram to reason about the size and weight of 1 kilogram, 100 grams, 10 grams, and 1 gram. (**3.NBT.2, 3.MD.2**, 3.NBT.8)**Lesson 7:** I can Develop estimation strategies by reasoning about the weight in kilograms of a series of familiar objects to establish mental benchmark measures. (**3.NBT.2, 3.MD.2**, 3.NBT.8)**Lesson 8:** I can Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions. (**3.NBT.2, 3.MD.2**, 3.NBT.8)**Lesson 9:** I can Decompose a liter to reason about the size of 1 liter, 100 milliliters, 10 milliliters, and 1 milliliter. (**3.NBT.2, 3.MD.2**, 3.NBT.8)**Lesson 10:** I can Estimate and measure liquid volume in liters and milliliters using the vertical number line. (**3.NBT.2, 3.MD.2**, 3.NBT.8)**Lesson 11**: I can Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units. (**3.NBT.2, 3.MD.2**, 3.NBT.8) | [**Topic B:**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-overview) **Measuring Weight and Liquid Volume in Metric Units**[**Lesson 6**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-6)[**Lesson 7**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-7)[**Lesson 8**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-8)[**Lesson 9**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-9)[**Lesson 10**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-10)[**Lesson 11**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-b-lesson-11)**Videos:** * [**Understand volume and how volume is measured**](https://learnzillion.com/lessons/1270-understand-volume-and-how-volume-is-measured)
* [**Estimate volume in liters**](https://learnzillion.com/lessons/1271-estimate-volume-in-liters)
* [**Measure volume in liters**](https://learnzillion.com/lessons/1272-measure-volume-in-liters)
* [**Understand mass and how mass is measured**](https://learnzillion.com/lessons/1273-understand-mass-and-how-mass-is-measured)
* [**Estimate mass in grams**](https://learnzillion.com/lessons/1274-estimate-mass-in-grams)
* [**Estimate mass in kilograms using benchmarks**](https://learnzillion.com/lessons/1275-estimate-mass-in-kilograms-using-benchmarks)
* [**Measure mass in grams**](https://learnzillion.com/lessons/1276-measure-mass-in-grams)
* [**Measure mass in kilograms**](https://learnzillion.com/lessons/1277-measure-mass-in-kilograms)
* [**Find the mass of an object using a balance scale**](https://learnzillion.com/lessons/3898-find-the-mass-of-an-object-using-a-balance-scale)
* [**Find the volume of liquids**](https://learnzillion.com/lessons/3899-find-the-volume-of-liquids)
* [**Estimate the mass of an object**](https://learnzillion.com/lessons/3900-estimate-the-mass-of-an-object)
* [**Estimate the volume of a liquid**](https://learnzillion.com/lessons/3901-estimate-the-volume-of-a-liquid)
* [**Solve mass and volume word problems using addition and subtraction**](https://learnzillion.com/lessons/3902-solve-mass-and-volume-word-problems-using-addition-and-subtraction)
* [**Solve mass and volume word problems using multiplication and division**](https://learnzillion.com/lessons/3903-solve-mass-and-volume-word-problems-using-multiplication-and-division)
 | **Fluency Practice:****Lesson 6-** Tell Time on the Clock**Lesson 7-** Group CountingGram CountingDecompose**Lesson 8-** Group CountingDivide Grams and KilogramsDetermine the Unit of Measure**Lesson 9-** Decompose 1 Kilogram**Lesson 10-** Milliliter CountingDecompose 1 LiterGroup Counting**Lesson 11-** Rename Tens |
| **Objectives/Learning Targets:** **Topic C****Lesson 12:** I can round two-digit measurements to the nearest ten on the vertical number line. **(3.NBT.1, 3.MD.1, 3.MD.2)****Lesson 13:** I can round two- and three-digit numbers to the nearest ten on the vertical number line. **3.NBT.1, 3.MD.1, 3.MD.2)****Lesson 14:** I can round to the nearest hundred on the vertical number line. **3.NBT.1, 3.MD.1, 3.MD.2)** | [**Topic C:**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-c-overview) **Rounding to the Nearest Ten and Hundred**[**Lesson 12**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-c-lesson-12)[**Lesson 13**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-c-lesson-13)[**Lesson 14**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-c-lesson-14)**Videos:*** [**Understand the value of a digit in a multi-digit number**](https://learnzillion.com/lessons/1783-understand-the-value-of-a-digit-in-a-multidigit-number)
* [**Find benchmark numbers using a number line**](https://learnzillion.com/lessons/1784-find-benchmark-numbers-using-a-number-line)
* [**Find the midpoint between two whole numbers**](https://learnzillion.com/lessons/1785-find-the-midpoint-between-two-whole-numbers)
* [**Round to the nearest ten using a number line**](https://learnzillion.com/lessons/1786-round-to-the-nearest-ten-using-a-number-line)
* [**Round to the nearest hundred using a number line**](https://learnzillion.com/lessons/1788-round-to-the-nearest-hundred-using-a-number-line)
* [**Round to the nearest ten or hundred in real world situations**](https://learnzillion.com/lessons/1790-round-to-the-nearest-ten-or-hundred-in-real-world-situations)
 | **Fluency Practice:****Lesson 12-** Rename the TensHalfway on the Number Line**Lesson 13-** Group Counting Rename the TensHalfway on the Number Line**Lesson 14-** Sprint: Find the Halfway PointRename the Tens |
| **Objectives/Learning Targets:** **Topic D****Lesson 15:** I can add measurements using the standard algorithm to compose larger units once. (**3.NBT.2**, 3.NBT.1, 3.MD.1, 3.MD.2)**Lesson 16:** I can add measurements using the standard algorithm to compose larger units twice. (**3.NBT.2**, 3.NBT.1, 3.MD.1, 3.MD.2)**Lesson 17:** I can estimate sums by rounding and apply to solve measurement word problems. (**3.NBT.2**, 3.NBT.1, 3.MD.1, 3.MD.2) | [**Topic D**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-d-overview)**: Two- and Three- digit Measurement Addition using the Standard Algorithm**[**Lesson 15**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-d-lesson-15)[**Lesson 16**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-d-lesson-16)[**Lesson 17**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-d-lesson-17)**Videos:** * [**Use addition and subtraction fact families to solve for unknown amounts**](https://learnzillion.com/lessons/1579-use-addition-and-subtraction-fact-families-to-solve-for-unknown-amounts)
* [**Solve addition problems using complements of ten**](https://learnzillion.com/lessons/1580-solve-addition-problems-using-complements-of-ten)
 | **Fluency Practice:** **Lesson 15-** Part-Whole with Metric UnitsRound Three- and Four-Digit Numbers**Lesson 16-** Part-Whole with Metric UnitsRound Three- and Four-Digit NumbersGroup Counting**Lesson 17**- Group CountingSprint- Round to the Nearest Ten |
| **Objectives/Learning Targets:** **Topic E****Lesson 18:** I can decompose once to subtract measurements including three-digit minuends with zeros in the tens or ones place. (**3.NBT.2**, 3.MBT.1, 3.MD.1, 3.MD.2)**Lesson 19:** I can decompose twice to subtract measurements including three-digit minuends with zeros in the tens and ones places. (**3.NBT.2**, 3.MBT.1, 3.MD.1, 3.MD.2)**Lesson 20:** I can estimate differences by rounding and apply to solve measurement word problems. (**3.NBT.2**, 3.MBT.1, 3.MD.1, 3.MD.2)**Lesson 21:** I can estimate sums and differences of measurements by rounding, and then solve mixed word problems. (**3.NBT.2**, 3.MBT.1, 3.MD.1, 3.MD.2) | [**Topic E:**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-e-overview) **Two- and Three- digit Measurement Subtraction using the Standard Algorithm**[**Lesson 18**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-e-lesson-18)[**Lesson 19**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-e-lesson-19)[**Lesson 20**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-e-lesson-20)[**Lesson 21**](https://www.engageny.org/resource/grade-3-mathematics-module-2-topic-e-lesson-21)**Videos:*** [**Use addition and subtraction fact families to solve for unknown amounts**](https://learnzillion.com/lessons/1579-use-addition-and-subtraction-fact-families-to-solve-for-unknown-amounts)
* [**Solve subtraction problems using a number line**](https://learnzillion.com/lessons/1583-solve-subtraction-problems-using-a-number-line)
 | **Fluency Practice:****Lesson 18-** Group CountingEstimate and Add**Lesson 19**- Subtract MentallyUse Subtraction Algorithm with Different UnitsRound Three- and Four-Digit Numbers**Lesson 20-** Round to the Nearest HundredUse Algorithm with Measurements**Lesson 21-** Group CountingUse Algorithms with Different UnitsEstimate and Subtract |
|  | **enVision Resource:** (enVision may be used to support the needs of your students, but should not be used independently.)6-1 Multiplication: 3 as a Factor6-2 Multiplication: 4 as a Factor6-3 Multiplication: 6 and 7 as Factors6-4 Multiplication: 8 as a Factor6-5 Multiplication: 11 and 12 as Factors6-6 Multiplying with 3 Factors6-7 Problem Solving: Multiple-Step Problems7-1 Number Sense: Division as Sharing7-3 Number Sense Division as Repeated Subtraction7-4 Writing Division Stories7-5 Use Objects and Draw a Picture8-1 Division: Relating Multiplication and Division8-2 Division: Fact Families 2,3,4, and 58-3 Division- Fact Families with 6 and 78-4 Division- Fact Families with 8 and 98-5 Division: dividing with 0 and 18-6 Problem Solving: Draw a Picture and Write a Number Sentence**Tasks:**[3rd Grade Task: Lunch Money](http://tncore.org/sites/www/Uploads/files/tasks/3/Lunch%20Money%20Task%20Gr3.pdf) (2.MD.C.8, 3.OA.A.1, 3.OA.A.3, 3.OA.B.5) [3rd Grade Task: Birthday Party](http://tncore.org/sites/www/Uploads/files/tasks/3/Gr_3_Birthday_Party_Task.pdf) (3.OA.A.1, 3.OA.A.2, 3.OA.A.3, 3.OA.B.5)  [3rd Grade Task: Insect Collections](http://tncore.org/sites/www/Uploads/files/tasks/3/Gr_3_Insect_Collections.pdf) (3.OA.A.1, 3.OA.A.3, 3.OA.B.5, 3.0A.B.6) **http://35cctask.ncdpi.wikispaces.net/3.MD.1-3.MD.2****Task Arc** [Multiplication and Division within 100](http://www.tncore.org/sites/www/Uploads/MathTasks_9.13/Arc3.OA.2thru6FINAL.pdf) (3.OA.A.2-4; B.5, 6)  **I-Ready Lessons:*** Multiplication Concepts: Skip Counting
* Multiplication and Division Fact Families
* Using Area for Multiplication: Facts 3,
* 4, and 5
* Division Concepts: Area and Facts for 3, 4, and 5
* Division Concepts: Area and Facts for 6, 7, and 8
* Using Area for Multiplication: Facts 6, 7, and 8
 | **Literature Connections** *Weight measurement: The Hershey’s Milk Chocolate Weights and Measures*, Jerry Pallotta*How Tall, How Short How Far Away*, David Adler*Is a Blue Whale the Biggest Thing There Is*, Robert Wells*Counting on Frank*, Rod Clement*Pastry School in Paris*, Cindy Neuschwander*Super Sand Castle Saturday*, Stuart Murphy*Measuring Penny*, Loreen Leedy*Millions to Measure*, David Schwartz*How long or Wide*, Brian Cleary*Room for Ripley*, Stuart J. Murphy*Me and the Measure of Things*, Joan Sweeney*On the Scale, a Weighty Tale*, Brian Clearly**Other:**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)](http://greatminds.net/maps/math/pacing-guides) |

|  |
| --- |
| **RESOURCE TOOLBOX**The Resource Toolbox provides additional support for comprehension and mastery of grade-level skills and concepts. These resources were chosen as an accompaniment to modules taught within this quarter.  Incorporated materials may assist educators with grouping, enrichment, remediation, and differentiation.  |
| **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**engageNY Mathematics ModulesenVision Math | **CCSS**[**Tennessee Math Standards**](http://tn.gov/education/article/mathematics-standards)[**Achieve the Core**](http://achievethecore.org/dashboard/300/search/1/2/0) | **Videos**[**Eureka Resources/Homework Resources**](https://drive.google.com/file/d/0B0NTAGFNryNVUDhMQmRQOWhvQ2s/view?usp=sharing)[**NCTM Common Core Videos**](http://www.nctm.org/Standards-and-Positions/Common-Core-State-Standards/Teaching-and-Learning-Mathematics-with-the-Common-Core/)[**TN Core Online Math Resources**](http://tncore.org/math/instructional_resources/k-12mathseries.aspx)[**Grade 3- LearnZillion**](https://learnzillion.com/resources/64466-3rd-grade-math)[**CCSS Video Series**](http://secc.sedl.org/common_core_videos/) |
| **Children’s Literature** [**The Reading Nook**](http://www.thereadingnook.com/math/)**[Math and Literature:](http://www.educationworld.com/a_curr/curr249.shtml)****[A Match Made in the Classroom](http://www.educationworld.com/a_curr/curr249.shtml)**[**Math for Kids-Best Children’s Books**](http://www.the-best-childrens-books.org/math-for-kids.html)[**Scholastic: Books and Programs to Improve Elementary Math**](http://teacher.scholastic.com/products/dothemath/math-reads/books-topics.htm#grade3) | **Interactive Manipulatives**[**Multiplying by Repeated Addition**](http://www.aaamath.com/mul39_x3.htm)[**Related Repeated Addition to Multiplication**](http://www.eduplace.com/kids/hmm/practice/templates/rules.jsp?ID=hmm07_ep/gr3/0801&GRADE=3&UNIT=4&CHAPTER=8&LESSON=1&UNIT_TITLE=Multiplication%20and%20Division%25)[**Multiplication Games**](http://www.turtlediary.com/game/multiplication-sentence.html)[**Multiplication Fluency**](http://www.scholastic.com/teachers/top-teaching/2015/01/multiplication-fluency-minutes-day) | **Additional Sites**[**http://www.k-5mathteachingresources.com/3rd-grade-number-activities.html**](http://www.k-5mathteachingresources.com/3rd-grade-number-activities.html)[**https://www.illustrativemathematics.org/content-standards/3**](https://www.illustrativemathematics.org/content-standards/3)[**http://www.edutoolbox.org/tntools/list/grade/819/955/3#960**](http://www.edutoolbox.org/tntools/list/grade/819/955/3#960) |
| **Other**[**Parent Roadmap: Supporting Your Child in Grade Three Mathematics**](http://www.cgcs.org/Page/244)[**Illustrated Mathematics Dictionary for Kids**](https://www.mathsisfun.com/definitions/)\*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)](http://greatminds.net/maps/math/pacing-guides) |  |  |