Model Curricula Alignment for Connecticut Mathematics
Resource Name: MidSchoolMath

| Alignment Grade 6 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model Unit Name | Model Unit Standards | Resource Unit(s) Number | Resources Lessons | Pacing |
| This is the title of the unit in the model curricula | These are the standards addressed in the unit | This is the unit(s) that aligns with the model unit from the resource | These are the lessons from the identified units that align to the standards within the model unit | This is the expected number of days for instruction |
|  |  |  |  |  |
| Operating with Positive Rational Numbers | 6.NS.A.1, 6.NS.B.2, 6.NS.B.3, 6.NS.B.4, 6.G.A. 2 | 6.NS.A 6.NS.B 6.G.A (partial) | 6.NS.A. 1 Mr. Mung's Ice Cream <br> 6.NS.B. 2 Which Way...? <br> 6.NS.B. 3 Enter the Dragon <br> 6.NS.B. 4 The Castle Guard <br> 6.G.A. 2 River Rescue | $\approx 20-25$ days |
| Understanding Positive and Negative Numbers | $\begin{aligned} & \text { 6.NS.C.5, 6.NS.C.6, 6.NS.C.7, } \\ & \text { 6.NS.C. } 8 \end{aligned}$ | 6.NS.C | 6.NS.C. 5 Weather Bear <br> 6.NS.C.6a The Sandwich Artist <br> 6.NS.C.6b Treasure Trail <br> 6.NS.C.6c Special Intelligence <br> 6.NS.C.7ab Snow School <br> 6.NS.C.c Day by Day <br> 6.NS.C.7d Coffee Accounting <br> 6.NS.C. 8 The Mark of Zero | $\approx 32-40$ days |
| Using Expressions and Equations | $\begin{aligned} & \text { 6.EE.A.1, 6.EE.A.2, 6.EE.A.3, } \\ & \text { 6.EE.A.4, 6.EE.B.5, 6.EE.B.6, } \\ & \text { 6.EE.B.7, 6.EE.B. } 8 \end{aligned}$ | 6.EE.A 6.EE.B | 6.EE.A. 1 I Dream of Djinni <br> 6.EE.A.2a Mr. \& Mrs. Stone <br> 6.EE.A.2b A Fairy Good Job <br> 6.EE.A.2c Real Stories of the AIF <br> 6.EE.A. 3 Provision Problem <br> 6.EE.A. 4 ... And a Tin of Rice <br> 6.EE.B. 6 Say Cheese! <br> 6.EE.B. 7 The Sign of Zero <br> 6.EE.B. 8 Farm Fortune | $\approx 36-45$ days |
| Applications of Geometry | 6.G.A.1, 6.G.A.3, 6.G.A. 4 | 6.G.A (partial) | 6.G.A. 1 The Lilliput Regatta 6.G.A. 3 Fuel Factor | ح 12-15 days |


|  |  |  | 6.G.A.4 Build a Better Box |  |
| :--- | :--- | :--- | :--- | :--- |
| Ratios and Rates | 6.RP.A.1, 6.RP.A.2, 6.RP.A.3 | 6.RP.A | 6.RP.A.1 For Every Day | $\approx 24-30$ days |


|  |  |  | 6.RP.A. 2 Road Trip Ratios <br> 6.RP.A.3a Clone Wars <br> 6.RP.A.3b Vacation Day <br> 6.RP.A.3c Stealing Home <br> 6.RP.A.3d Saffron Shuffle |  |
| :---: | :---: | :---: | :---: | :---: |
| Algebraic Reasoning | 6.EE.B.6, 6.EE.B.7, 6.EE.C. 9 | 6.EE.B (partial) 6.EE.C | 6.EE.B. 6 Say Cheese! <br> 6.EE.B. 7 The Sign of Zero <br> 6.EE.C. 9 Sister Act | $\approx 12-15$ days |
| Statistics and Distributions | $\begin{aligned} & \text { 6.SP.A.1, 6.SP.A.2, 6.SP.A.3, } \\ & \text { 6.SP.B.4, 6.SP.B. } 5 \end{aligned}$ | 6.SP.A 6.SP.B | 6.SP.A. 1 Statistical Friends 6.SP.A. 2 Build a Better Forest 6.SP.A. 3 Periodontal Pockets 6.SP.B.4\&5 Shoot for the Moon! | $\approx 16-20$ days |

## Scope and Sequence

If a district uses this resource to implement the state model curriculum for grade 6, the following scope and sequence should be followed to ensure alignment and attention to the progressions of mathematics.
${ }^{* *} A$ district is welcome to use their own scope \& sequence as well. The main consideration being would be the unit tests in this curriculum (Milestone Assessments) are aligned to the units below.

Core Curriculum by MidSchoolMath is structured by grade, domain, cluster and standard levels. MidSchoolMath provides general guidelines for scope, sequence and pacing in the Teacher's Guide for each grade level (summarized below) to ensure that all standards for the grade level are included. Essential concepts (Major Clusters) are allotted additional time throughout the year. The sequence provided in the materials is specifically designed to provide a framework to allow teachers sufficient time for teaching each standard throughout the year. Additionally, the materials are intentionally designed for students to work with more 'concrete' forms of mathematics prior to abstract concepts. Finally, the structure of the curriculum is sequenced to allow for completion of topics before associated summative assessments, and sequencing within lessons progresses from conceptual work to practice with exercises. Core Curriculum by MidSchoolMath is based on estimated 36 weeks or 180 days per school year. Lessons typically take four days; if necessary for content coverage, they may be compressed to three days.

Districts using Core Curriculum may opt to use the Model Unit sequence instead and can order lessons as outlined in the crosswalk above.

| Order | Unit Number/Title and Lessons | Lesson Objectives | \# of days (assume 1 hour of instruction) | Number of weeks |
| :---: | :---: | :---: | :---: | :---: |
| Ratios \& Proportional Reasoning | 6.RP.A <br> 6.RP.A. 1 For Every Day <br> 6.RP.A. 2 Road Trip Ratios <br> 6.RP.A.3a Clone Wars <br> 6.RP.A.3b Vacation Day <br> 6.RP.A.3c Stealing Home | - Understand the concept of ratios and use ratio language to interpret ratios. Interpret ratios as unit rates. | 224-30 days | ~ 5-6 weeks |


|  | 6.RP.A.3d Saffron Shuffle | Represent and compare <br> ratios in tables and graphs. $\bullet$ <br> Use unit rates to solve <br> problems. |  |
| :--- | :--- | :--- | :--- | :--- |


| The Number System | 6.NS.A <br> 6.NS.A. 1 Mr. Mung's Ice Cream <br> 6.NS.B <br> 6.NS.B. 2 Which Way...? <br> 6.NS.B. 3 Enter the Dragon <br> 6.NS.B. 4 The Castle Guard <br> 6.NS.C <br> 6.NS.C. 5 Weather Bear <br> 6.NS.C.6a The Sandwich Artist <br> 6.NS.C.6b Treasure Trail <br> 6.NS.C.6c Special Intelligence <br> 6.NS.C.7ab Snow School <br> 6.NS.C.c Day by Day <br> 6.NS.C.7d Coffee Accounting <br> 6.NS.C. 8 The Mark of Zero | Understand percent as a rate per 100 and use that to solve problems. <br> - Use ratio reasoning to convert measurements. <br> - Interpret and compute quotients of fractions. <br> - Divide multi-digit numbers using the standard algorithm. • Add, subtract, multiply, divide decimals. <br> Use GCF and LCM to solve problems. <br> - Understand positive and negative numbers as they represent real-world contexts. <br> Recognize numbers have opposites, located on opposite sides of zero on a number line. <br> Understand signed numbers as they relate to quadrants on a coordinate plane, including plotting points with signed coordinates. <br> - Interpret the relationship between numbers based on their location on the number line. <br> - Understand and interpret absolute value. | $\approx 4-5 \text { days }$ $\approx 12-15 \text { days }$ $\approx 32-40 \text { days }$ | $\approx 1$ week <br> $\approx$ 2-3 weeks <br> $\approx 7-8$ weeks |
| :---: | :---: | :---: | :---: | :---: |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |


| Expressions \& Equations | 6.EE.A <br> 6.EE.A. 1 I Dream of Djinni <br> 6.EE.A.2a Mr. \& Mrs. Stone <br> 6.EE.A.2b A Fairy Good Job <br> 6.EE.A.2c Real Stories of the <br> AIF <br> 6.EE.A. 3 Provision Problem <br> 6.EE.A. 4 ... And a Tin of Rice <br> 6.EE.B <br> 6.EE.B. 6 Say Cheese! <br> 6.EE.B. 7 The Sign of Zero <br> 6.EE.B. 8 Farm Fortune <br> 6.EE.C <br> 6.EE.C. 9 Sister Act | Write \& evaluate numerical expressions with exponents. - Write expressions with numbers and letters. • Identify parts of an expression. <br> Evaluate expressions at specific valuables of their variables. <br> Apply properties of operations to generate equivalent expressions. • Identify when two expressions are equivalent. <br> Understand a solution of an equation or inequality as a value that make the equation or inequality true. <br> Use variables to represent numbers and write expressions when solving problems. <br> Solve problems by writing simple equations(with nonnegative numbers). <br> Write and solve simple inequalities. <br> Use variables to represent the relationship between independent and dependent variables. <br> - Analyze the relationship between independent and dependent variables using tables, graphs \& equations. | $\approx 24-30$ days <br> $\approx 12-15$ days <br> $\approx 4-5$ days |  |
| :---: | :---: | :---: | :---: | :---: |


| Geometry | 6.G.A <br> 6.G.A. 1 The Lilliput Regatta <br> 6.G.A. 2 River Rescue <br> 6.G.A. 3 Fuel Factor <br> 6.G.A. 4 Build a Better Box | Find the area of triangles and other polygons by composing rectangles or decomposing into familiar shapes. <br> Find the volume of right rectangular prisms with fractional side lengths by packing it with unit cubes. $\bullet$ Apply formulas to find volumes of right rectangular prisms. <br> Use coordinates to find the length of a side of a figure using ordered pairs that share a coordinate and use this to skill to solve problems. - Represent 3-D figures using nets made of rectangles and triangles. <br> Use nets to calculate surface area and solve realworld problems. | $\approx 16-20$ days | ~4-5 weeks |
| :---: | :---: | :---: | :---: | :---: |


| Statistics \& Probability | 6.SP.A <br> 6.SP.A. 1 Statistical Friends <br> 6.SP.A. 2 Build a Better Forest <br> 6.SP.A. 3 Periodontal Pockets | Recognize statistical questions as questions that anticipate variability. <br> Understand that data sets have a distribution that can be described by center, spread and shape. <br> Recognize that a measure of center summarizes all values of a data set with a single number \& that a measure of variation describes how the values in the data set vary with a single number. | $\approx 12-15$ days | $\approx 2-3$ weeks |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\approx 4-5$ days | ح 1 week |


|  | 6.SP.B <br> 6.SP.B.4\&5 Shoot for the <br> Moon! | Display numerical <br> data in dot plots, histograms <br> and dot plots. <br> $\bullet$ <br> Summarize numerical <br> data sets in context using <br> measures of center, measures <br> of variation, shape of <br> distribution. |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |
| Slease provide any information relative to supporting culturally responsive instruction, multi-language learners, and students with disabilities |  |  |

From a high-level perspective, Core Curriculum has been designed to allow all students to engage in learning grade-level math standards. The Math Simulator is intentionally designed, and placed prior to teacher instruction, so that students have the freedom to enter into the problem where they are. Students are specifically encouraged to conceive of multiple solutions and solution paths. Collaboration is encouraged, with a focus and emphasis on using processes and strategies over rushing to arrive at an answer.

Each Detailed Lesson Plan provides lesson-specific recommendations for differentiation, in two places. The "Strategies for Supporting Diverse Learners" Chart found in each Detailed Lesson Plan provides accommodations, modifications and extensions for that lesson to use with EL and special populations, including supporting students with skill gaps and special education needs, and those identified as gifted. The "Practice Printable Differentiation Plan" provides recommendations for remediation, practice and enrichment to meet the needs of all students. Resources to support these students are further embedded and integrated within Core Curriculum, such as Test Trainer Pro and Mathematical Language Routines.

All Detailed Lesson Plans also contain at least one strategy around Mathematical Language Routines (MLRs) for each lesson standard; these MLRs apply to all students but are particularly beneficial for English Language Learners. An overview on using MLRs, and a professional development module on MLRs, can be accessed within the system from the Teacher Dashboard.

Test Trainer Pro allows for students to practice math items in every domain at their own ability level, be that at grade level, below grade level, or above grade level. Teachers have access to lessons from all grade levels 5-8, which can be used to assign specific lessons outside of the current course with individual students or groups of students, as needed.

Videos are closed captioned in English and also have the option of Spanish subtitles to support EL and students who are deaf or hard of hearing. Highcontrast text is used throughout and can be resized by users; images can also be doubled in size. Users have the ability to adjust and adapt background colors and sizes through browser settings, for improved accessibility, and content works with common Chrome extensions to further accessibility.

To support schools and districts with large populations of Spanish-speakers, MidSchoolMath publishes Spanish-language versions of all student materials and has built in Spanish-language subtitles for all videos. The Spanish-language print materials can be accessed online (alongside Englishlanguage materials) or districts may opt to purchase Student Workbooks (Spanish Edition). All Spanish-language materials were created through a professional translation process, undertaken by humans and overseen by Spanish-speaking educators, to ensure authenticity and understanding.

