



Created by
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Do The Math

Aligns to 21st Century Community Learning Centers

The purpose of the 21st Century Community Learning Centers program is to support the creation of community learning centers that provide academic enrichment opportunities during non-school hours for children, particularly students who attend high-poverty and low-performing schools. The program helps students meet state and local standards in core academic subjects, such as reading and math; offers students a broad array of enrichment activities that can complement their regular academic programs; and offers literacy and other educational services to the families of participating children. The following chart shows how **Do The Math** can support a 21st CCLC program. The criteria are drawn from the Federal 21st CCLC Non-Regulatory Guidance, posted at:

<http://www2.ed.gov/programs/21stcclc/legislation.html>

Components of a 21CCLC Program	<i>Do The Math</i>
<p>Activities that provide remedial education activities, including additional assistance to students to allow the students to improve their academic achievement</p>	<p>Do The Math, created by Marilyn Burns, gives students who have fallen behind a chance to catch up and keep up. Focusing on numbers and operations—the cornerstone of Elementary Math education—<i>Do The Math</i> helps students in grades 2-8 build a solid foundation in computation, number sense, and problem solving for immediate and long-term learning. The program, which reflects <i>National Council of Mathematics</i> (NCTM) standards, teaches essential Numbers and Operations math skills that integrate with a core math curriculum.</p> <p><i>Do The Math</i> consists of 13 modules that target addition and subtraction, multiplication, division, and fractions. Each module includes a series of thirty, 30-minute step-by-step lessons, which offer multiple strategies to enable students to build a solid foundation of understanding. To achieve optimal learning, students gradually progress through the program in a four-phase pedagogy in which teachers model the mathematical representation on the board and guide the students toward working independently with monitored support from the teacher. In <i>Do The Math</i>, student interaction occurs in whole group, small group, and pairs as students work together to solve problems, play games, and explain their thinking.</p> <p>In addition, State Standards recommend that Kindergarten and 1st grade mathematics should focus on the “number core,” which they define as understanding how numbers correspond to quantities and how to put numbers together and take them apart (the beginnings of addition and subtraction). To meet these standards, a Number Core module has been integrated into <i>Do The Math</i>, and focuses on multiple ways to represent the quantity of 5 and later make sums to 10.</p>

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<p>Programs that are based on scientifically based research that provides evidence that the program will help students meet state and local achievement standards</p>	<p><i>Do The Math</i> is a research-based math intervention program designed to support students who are struggling with Elementary Arithmetic. The program was developed to address the growing National concern regarding mathematics performance in this country. The National Mathematics Advisory Panel’s Final Report states that “to prepare students for Algebra, the curriculum must simultaneously develop conceptual understanding, computational fluency, and problem-solving skills.” With a focus on Number and Operations—the cornerstone of elementary math education and a critical foundation of Algebra—<i>Do The Math</i> supports students in building a strong foundation in computation, number sense, and problem solving.</p> <p><i>Do The Math</i> is the result of the collaborative work of a research and development team headed by Marilyn Burns and contributed to by <i>Math Solutions</i> Professional Development Master Teachers. Marilyn Burns has worked with students and teachers and continues to teach regularly so as to deepen her understanding and insight into the needs of struggling students and the teachers who teach them.</p> <p> For more information about the <i>Do The Math</i> Research Foundation, please see: http://teacher.scholastic.com/products/dothemath/research.htm</p>
<p>Academic activities aligned with the school’s curriculum in the core subject areas</p>	<p><i>Do The Math</i> is organized into 13 modules. Each module includes 30 lessons designed for 30-minute classes, five days a week. Each module scaffolds and paces key concepts and skills for students who struggle with math.</p> <p><u>Addition & Subtraction</u></p> <ul style="list-style-type: none"> ▪ Module A: Add two digit numbers to the sum of 100 ▪ Module B: Subtract from numbers up to 100 ▪ Module C: Develop computational strategies to add and subtract with numbers up to 1,000s <p><u>Multiplication</u></p> <ul style="list-style-type: none"> ▪ Module A: Understand the concept of multiplication ▪ Module B: Learn multiplication facts up to 12 x 12 ▪ Module C: Develop the tools and strategies to multiply two-digit numbers <p><u>Division</u></p> <ul style="list-style-type: none"> ▪ Module A: Build understanding of the meaning of division ▪ Module B: Continue learning with divisors up to 10 and dividends up to 100 ▪ Module C: Build the computation tools and strategies to solve problems with larger numbers, including two-digit divisors <p style="text-align: right;">CONTINUED</p>

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<p>Academic activities aligned with the school’s curriculum in the core subject areas <i>Continued</i></p>	<p><u>Fractions</u></p> <ul style="list-style-type: none"> ▪ Module A: Build an understanding of fractions using a limited set of fractions. Identify equivalent fractions, compare and order fractions, and combine fractions with like denominators ▪ Module B: Develop strategies to compare and order fractions, including fractions greater than 1 ▪ Module C: Add and subtract fractions, including improper fractions and mixed numbers, with like and unlike denominators. Represent fractions in lowest terms and estimate sums or differences. <p><u>Number Core</u> Develop mental representations of numbers using benchmarks of 5 and 10; compose and decompose quantities; build facility with figuring sums to 20; and apply the inverse property of addition and subtraction.</p>
<p>Technology education programs</p>	<p>The <i>Do The Math</i> Interactive Whiteboard Tools are a series of interactive whiteboard tools that turn math lessons into engaging and visual experiences. These tools support instruction in all four program strands—Addition & Subtraction, Multiplication, Division, and Fractions. The easy-to-use demonstration tools are ideal for Small- or Whole-group instruction and can be used on any whiteboard or classroom computer to help students better visualize math concepts and skills.</p> <p>The <i>Do The Math</i> Interactive Whiteboard Tools meet the needs of teachers who aim to use technology to motivate, encourage, and help change students’ attitudes towards math. Because today’s students are technology-oriented, the tools reach students who are not successful at traditional paper and pencil math computation. Teachers and students are able to write equations with whole numbers and fractions, draw lines, draw open number lines, and more on the interactive whiteboard.</p>
<p>Activities for limited English proficient students that emphasize language skills and academic achievement</p>	<p><i>Do the Math</i> is designed to grant maximum access and success for English Language Learners, with an emphasis on language development, the incorporation of visual representations and directions, and consistency across all instructional routines.</p> <ul style="list-style-type: none"> ▪ The four-phase gradual release model prepares students for success and ensures that they are prepared to complete their work independently. Routines are well established so ELL students can focus on the content and not the process of the assignment. ▪ Numerous structured opportunities for students to engage in meaningful conversations about math are embedded throughout the program to support intentional vocabulary and language development, while increasing access to content. Working in pairs allows for English Language Learners to speak in their first language in order to understand the task at hand before practicing articulating their solution in English when they share with the larger group. <p style="text-align: right;">CONTINUED</p>

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<p>Activities for limited English proficient students that emphasize language skills and academic achievement <i>Continued</i></p>	<ul style="list-style-type: none"> ▪ “Built-in-Differentiation” notes on each planner page summarize for teachers some of the important key practices used in each lesson that support English Language Learners. ▪ Visual tools, such as visual representations of mathematical concepts, visual directions in the student <i>WorkSpace</i>, visual representations of manipulatives, and the visual connections to mathematics in children’s literature all support students whose second language is English. ▪ Math vocabulary is explicitly taught using a consistent routine. Every lesson includes a sidebar that highlights the key math and academic vocabulary used in each lesson along with the Spanish translation. Language Development boxes provide further explanation and additional support.
<p>Programs that provide assistance to students who have been truant, suspended, or expelled, to allow the students to improve their academic achievement</p>	<p>In <i>Do The Math</i> explicit instruction utilizes scaffolded content and is designed to support students’ learning as they see visual models, connect those models and concepts to their mathematical representations, and while they learn appropriate mathematical and academic language. <i>Do The Math</i> lessons engage students with concepts and skills using concrete manipulative materials, games that reinforce and provide practice, selected children’s literature that provides a context for mathematical concepts and skills, and visual representations to help students represent their thinking.</p>
<p>Ongoing staff training for implementing the academic support and enrichment services</p>	<p><u><i>Do The Math</i> Implementation Training</u></p> <p>This training helps elementary teachers get started using the program in the classroom. Participants learn how to effectively use <i>Do The Math</i>, including navigating the program materials, experiencing the pace of a <i>Do The Math</i> module with tips for implementing instructional strategies, assessing student progress, and learning how to differentiate instruction.</p> <p><u><i>Do The Math</i> Interactive Webinar</u></p> <p>In this interactive Webinar, elementary teachers, coaches, and administrators learn how to get started with <i>Do The Math</i>, including previewing program materials, understanding the math behind <i>Do The Math</i>, teaching with lessons and games, placing students, and monitoring progress.</p> <p><u>In-Classroom Support</u>—RECOMMENDED, at an additional cost</p> <p>Scholastic consultants provide teachers with individualized support and focused strategies side-by-side in the classroom. They build relationships with teachers to support on-model implementation, classroom management, program monitoring, and data-driven instruction. A year-long customized plan of in-classroom visits provides teachers with in-person, individualized support and focused strategies for the classroom. For the best results, Scholastic recommends monthly visits for all teachers.</p>

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<p>Programs that promote parental involvement</p>	<p><i>Do The Math</i> offers a <i>Community Newsletter</i>, available in English and Spanish that is sent home after every fifth lesson. The newsletter informs parents of the topics and concepts that have been presented in the classroom, and includes suggested activities and practice games for students to try at home. In addition, teachers can share <i>WorkSpace</i> pages and assessment results with parents.</p>
<p>Periodic evaluation of the academic progress of children participating in the 21st CCLC program</p>	<p><i>Do The Math</i> includes both embedded progress monitoring, as well as formative and summative assessments that allow teachers to continuously evaluate student understanding and monitor their progress.</p> <p>Ongoing assessment is built into <i>Do The Math</i> as students use their <i>WorkSpace</i> during each lesson to follow along with lessons and to practice learned concepts and skills on a daily basis. During every fifth lesson, on a weekly basis, students complete the <i>Show What You Know WorkSpace</i> assignment to demonstrate understanding of the math content from the previous four lessons. After students complete the <i>Show What You Know</i> assignment, teachers can formally assess understanding of skills and concepts from the previous four lessons.</p> <p>In addition, assessments are administered through the computer-based <i>ProgressSpace</i> assessments at the beginning and end of each module and semester to assess understanding and monitor student progress over time.</p> <ul style="list-style-type: none"> ▪ <u>Beginning-of-Module Assessments</u>—Administered at the start of each <i>Do The Math</i> module to capture students’ baseline scores and understanding of foundational math skills ▪ <u>Formative Assessment</u>—Daily observations give students the prompt attention that will enable them to complete math assignments successfully. ▪ <u>Progress Monitoring</u>, which occurs every fifth lesson, is followed by suggestions for differentiating instruction for students who need additional support and those ready for a challenge. ▪ <u>End-of-Module Assessments</u>—Administered at the end of each <i>Do The Math</i> module to enable teachers to track and monitor student progress over the course of 30 lessons <p>With <i>ProgressSpace</i>, all curriculum embedded assessments are web-based and customized to meet students’ needs. Three easy-to-generate, actionable reports and a student test printout allow teachers to evaluate student understanding and growth. The Student Progress Report shows growth at the individual student level; the Grading Report shows performance at a class, grade, or school level; and the Response to Intervention report displays program performance at the school or district level.</p>

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<p>Coordination of Federal, State, and Local services and programs</p>	<p><i>Do The Math</i> can be integrated with funds from state, local, private, and other sources. The federal funding programs for which it qualifies include:</p> <ul style="list-style-type: none"> ▪ Title IA—Improving Basic Programs ▪ Title I—School Improvement Grants (SIG) ▪ Title I—Supplemental Education Services (SES) ▪ Title III—English Language Acquisition ▪ IDEA, Part B ▪ IDEA, <i>Response to Intervention</i> ▪ 21st Century Community Learning Centers (21CCLC) ▪ Race to the Top—District (RTT-D)