



# MATH 180

## Aligns to Title I, Part A IMPROVING BASIC PROGRAMS


The purpose of *Title I, Part A—Improving Basic Programs* is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. Title I schools must develop a comprehensive plan to improve teaching and learning. The following chart shows how **MATH 180** can support a Schoolwide Title I program. The criteria are drawn from the Federal *Title I Final Rules and Regulations*, posted at:

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

Components of a Title I Program	MATH 180
<p>Provide opportunities for all students to meet the State’s proficient and advanced levels of student academic achievement, particularly in the areas of math, reading/language arts, and science</p>	<p><b>MATH 180</b> is a math intervention program that empowers students in grades 6 and up to learn the content foundational to Algebra. Since the development of emotional and social competencies essential for success in college and career works hand in hand with efforts to improve students’ content knowledge, <b>MATH 180</b> is rooted in relevance and real world connections, providing a rich landscape for learning in multiple domains. Leveraging research on effective mathematics teaching and learning, and the need for educator support in implementing educational innovations, <b>MATH 180</b> provides the support students need to develop key knowledge and skills essential for 21<sup>st</sup> Century college and career success.</p> <p><b>MATH 180</b> focuses on deep understanding and mastery of the essential skills and concepts necessary to unlock Algebra and advanced mathematics. Carefully curated by Sybilla Beckmann, the <b>MATH 180</b> scope and sequence is built around a focused and coherent curriculum that enables struggling students to progress quickly and effectively toward grade-level curriculum.</p> <p>Nine blocks of instruction feature high-interest themes while the focused content helps students make connections while learning to think algebraically. The nine blocks of instruction include the following:</p> <ul style="list-style-type: none"><li>▪ Multiplicative Thinking</li><li>▪ The Distributive Property</li><li>▪ Division</li><li>▪ Fraction Concepts</li><li>▪ Fraction Relationships</li><li>▪ Fraction Multiplication and Division</li><li>▪ Decimals and Place Value</li><li>▪ Decimal Operations</li><li>▪ Both Sides of Zero</li></ul>

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<p>Use of academic assessments in order to provide information on, and to improve, the achievement of individual students and the overall instructional program</p>	<p><i>MATH 180</i> includes a comprehensive suite of high-quality assessment tools and reports to monitor progress and differentiate instruction. <i>Scholastic Math Inventory</i> (SMI) can determine readiness for <i>MATH 180</i> and establish a baseline for measuring mathematical growth. Throughout the student software, students have the ability to take a FastTrack assessment, which provides an accelerated route through the software. Curriculum-embedded assessments, called <i>mSkills</i>, measure understanding to group instruction. To assess the shifts in students’ mindsets, students take the Mindset Scan from Mindset Works®.</p> <p><i>MATH 180</i> utilizes <i>Scholastic Central</i>, a digital platform that leverages the power of technology to support teaching with smart data, powerful tools for differentiated instruction, and resources that are comprehensive, cohesive, and convenient. <i>Scholastic Central</i> includes comprehensive class- and student-level data to monitor students’ progress and performance in the program. Teachers use the following <i>Scholastic Central</i> data analysis tools to track student progress toward grade-level standards and Algebra readiness and monitor ongoing overall growth in math understanding.</p> <ul style="list-style-type: none"> <li>▪ <u>Data Snapshots</u>—High-level data snapshots that support lesson planning and monitor class progress and performance</li> <li>▪ <u>Classroom Analytics</u>—Monitor and track students’ progress and performance in the software and compare assessment results</li> <li>▪ <u>Student Analytics</u>—Track students’ trajectory toward Algebra readiness and plan individualized instructional support.</li> <li>▪ <u>Data Reports</u>—Track students’ overall growth in mathematics</li> </ul> <p>The Teacher Dashboard provides the resources that teachers need to manage the student data they collect, group students, and plan instruction. From the Dashboard, teachers can view and print reports that provide detailed diagnostic data to help teachers understand individual needs, group students, target key skills, monitor growth, and compare progress with peers.</p> <p>The Leadership Dashboard facilitates connected leading by providing an easily accessible overview of program implementation metrics. Leaders can use the dashboard to efficiently monitor student performance and implementation fidelity and to access tools for planning and managing resources.</p>
<p>Use effective methods and instructional practices that are based on scientifically based research and that:</p> <ul style="list-style-type: none"> <li>▪ Strengthen the core academic program</li> </ul>	<p>Three research-based principles have been engineered into <i>MATH 180</i> to transform math instruction so that students believe in the possibility of success and their teachers have cutting-edge tools to accelerate them to the rigors of grade-level mathematics.</p> <ol style="list-style-type: none"> <li>1. <i>MATH 180</i> fosters a growth mindset by showing students that their efforts lead to success. Adaptive technology is a key partner in furthering this attitude. While diagnosing student gaps and delivering a “just right” dosage of instruction and practice, <i>MATH 180</i> builds student confidence and ensures evidence-based mastery of newly learned skills and concepts.</li> </ol>

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<ul style="list-style-type: none"> <li>▪ Provide an enriched and accelerated curriculum</li> <li>▪ Increase the amount and quality of learning time</li> </ul>	<ol style="list-style-type: none"> <li>2. <i>MATH 180</i> focuses on deep understanding and mastery of the essential skills and concepts necessary to unlock Algebra and advanced mathematics. Carefully curated by Dr. Sybilla Beckmann, the <i>MATH 180</i> scope and sequence is built around a focused and coherent curriculum that enables struggling students to progress quickly and effectively toward grade-level curriculum.</li> <li>3. A force multiplier is an approach that dramatically increases—or multiplies—effectiveness. Teachers are the key force behind effective math instruction, yet for most school districts, teacher preparedness has become a critical issue. The <i>MATH 180</i> professional learning scaffolds less experienced teachers and provides a wealth of sophisticated supports to veteran math teachers. Guided by Dr. Deborah Ball, the country’s most respected voice in building teaching capacity, <i>MATH 180</i> helps teachers become force multipliers by surrounding them with the resources they need to be greater at what they do best.</li> </ol> <p>The <i>MATH 180</i> Research Foundation Paper provides a detailed description of how <i>MATH 180</i> utilizes the latest research to prepare students in Grades 6 and above with the mathematical understanding and skills they need to thrive in the 21<sup>st</sup> century. It summarizes the key research principles underlying the development of <i>MATH 180</i> and delineates the specific program features that are designed to engage and empower learning experiences, support teachers in maximizing instructional effectiveness, and give administrators the tools to ensure high-quality implementation.</p> <p> To download a copy of the <i>MATH 180</i> Research Foundation Paper, please see:  <a href="http://teacher.scholastic.com/products/math180/authors-advisors.htm">http://teacher.scholastic.com/products/math180/authors-advisors.htm</a></p> <p><b>STRENGTHEN THE CORE ACADEMIC PROGRAM</b></p> <p>The <i>MATH 180</i> software builds mastery and a mathematical mindset for students through instructional videos, guided problem sets, adaptive formative assessments, and smart math games designed to build fluency. <i>MATH 180</i> offers students a highly engaging software experience within the following zones of instruction:</p> <p><u><i>Explore Zone</i></u></p> <p>In the <i>Explore Zone</i>, students first watch an Anchor Video to learn how math is used in a real context. After watching the video, students complete a simulation during which they have the opportunity to make a series of unique mathematical decisions to meet a designated goal.</p> <p style="text-align: right;">CONTINUED</p>

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<p>Use effective methods and instructional practices that are based on scientifically based research and that:</p> <ul style="list-style-type: none"> <li>▪ Strengthen the core academic program</li> <li>▪ Provide an enriched and accelerated curriculum</li> <li>▪ Increase the amount and quality of learning time</li> </ul> <p><i>Continued</i></p>	<p><u><i>Learn Zone</i></u></p> <p>In the <i>Learn Zone</i>, students progress through direct instruction and adaptive practice with key concepts along the path to Algebra. They demonstrate mastery at their own pace with varying levels of scaffolding and feedback to foster independent success. The software gradually releases students from guided to independent practice using visual models, a metacognitive coach, and corrective feedback.</p> <p><u><i>Success Zone</i></u></p> <p>Built as a game board with choice, the <i>Success Zone</i> features problems designed around the items students will encounter on the Next Generation Assessments, providing critical practice in a rewarding, fun space.</p> <p><u><i>Brain Arcade</i></u></p> <p>Customized to each student’s needs, the <i>Brain Arcade</i> provides a personalized playlist of games that build both computational and strategic fluency. Games are proven to be risk-free environments that de-stigmatize failure, demarcate progress, and reward persistence; the <i>Brain Arcade</i> games encourage students to pursue their personal mathematical goals with a sense of independence and agency.</p> <p><b>PROVIDE AN ENRICHED AND ACCELERATED CURRICULUM</b></p> <p><i>MATH 180</i> explicitly situates mathematics in college and career contexts, exposing students to a variety of potential visions of future success. Each <i>MATH 180</i> unit begins with an Anchor Video that presents the upcoming content through high-interest situations. In one unit, for example, students learn how the performances of the world’s top athletes are often separated by only tenths of even hundredths of a second. Determining winners requires precise measurement tools, cameras, and software, along with knowledge of decimal place value.</p> <p>Every block, or unit, of <i>MATH 180</i> contains engaging, media-rich, multi-step simulations, in which students take on the authentic tasks of social media marketers, restaurant managers, medical and educational professionals, and many other engaging, high-interest careers. In this way, students experience the mathematical concepts as concrete, representational, and intensely purposeful, before they are asked to perceive them as abstract and algorithmic.</p> <p>The <i>MATH 180</i> instructional software adapts to each student’s needs, providing added support and practice for those who need it and accelerating those ready to move on. Throughout the student software, students have the ability to take a short FastTrack assessment, which provides an accelerated route through the software.</p> <p style="text-align: right;">CONTINUED</p>

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<p>Use effective methods and instructional practices that are based on scientifically based research and that:</p> <ul style="list-style-type: none"> <li>▪ Increase the amount and quality of learning time</li> </ul> <p><i>Continued</i></p>	<p><b>INCREASE THE AMOUNT AND QUALITY OF LEARNING TIME</b></p> <p>The flexible instructional model in <i>MATH 180</i> maximizes instructional time with a clear organization for whole class, group, and individualized learning. Instruction begins with a whole-class “Do Now” exercise to help students warm-up. Then based on the data and <i>Groupinator™</i> analysis, students divide into two groups and rotate between stations for teacher-led group instruction and the <i>MATH 180</i> Software. During Group Instruction, the teacher facilitates instruction to build conceptual understanding, develop reasoning and communication skills, and interpret student thinking.</p> <p>The <i>Brain Arcade</i>, available anytime, anywhere, provides each student with a personalized playlist of games that build strategic and procedural fluency. Games feature unique learning environments that focus on reasoning and estimation, multiple representations, and strategic mathematical thinking. Each game has multiple chapters, covering a span of content from whole numbers to integers.</p>
<p>Address the needs of all students in the school, particularly the needs of low-achieving students and those at risk of not meeting the State student academic achievement standards</p>	<p>The <i>MATH 180</i> software provides students the time they need to develop understanding of important mathematics. Student engagement with the instructional software is self-paced, allowing students the time and support they need to acquire the knowledge and skills necessary for success. Additional opportunities, such as Checkpoint days, are provided for personalized instruction as teachers utilize student performance data to differentiate learning during teacher-facilitated instruction.</p> <p><u>English-Language Learners</u></p> <p><i>MATH 180</i> provides maximum support for English language learners with emphasis on language development and use of visual representations and routines that support classroom discourse.</p> <ul style="list-style-type: none"> <li>▪ Explicit Vocabulary Instruction—Teachers introduce vocabulary through a consistent routine of hear it, see it, say it, and define it. Spanish translations of all vocabulary are provided for teachers and students.</li> <li>▪ Sentence Frames provide students struggling with language access to sentence structures they would have difficulty accessing on their own.</li> <li>▪ Classroom Routines &amp; Language Goals support classroom discourse and offer structured opportunities for students to engage in meaningful conversations about math before speaking in front of a larger group.</li> </ul> <p style="text-align: right;">CONTINUED</p>

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<p>Address the needs of all students in the school, particularly the needs of low-achieving students and those at risk of not meeting the State student academic achievement standards <i>Continued</i></p>	<p><u>Students In Special Education</u></p> <p>For many older struggling students who have unique learning challenges or have been identified as in need of special education services, <i>MATH 180</i> helps meet their unique education goals.</p> <ul style="list-style-type: none"> <li>▪ Individual Education Program (IEP) Supports—Point-of-use data and reports allow teachers and parents to measure student progress toward annual IEP goals.</li> <li>▪ Adaptive, Individualized Pacing—The Adaptive Software allows students to move at their own pace and receive individualized, targeted instruction.</li> <li>▪ Universal Design for Learning (UDL) Principles—Working with CAST, the <i>MATH 180</i> software aligns with the core principles of UDL, providing multiple means of representation, action and expression, and engagement.</li> </ul>
<p>High-quality and ongoing professional development for teachers and principals</p>	<p><u>MATH 180 Implementation Training— Part I</u></p> <ul style="list-style-type: none"> <li>▪ Identify the ways <i>MATH 180</i> raises math achievement and increases college/career readiness</li> <li>▪ Experience the <i>MATH 180</i> Instructional Model</li> <li>▪ Use resources to effectively teach, manage, and assess learning in <i>MATH 180</i></li> <li>▪ Manage classes and student data with <i>Scholastic Central</i> and the Teacher Dashboard</li> </ul> <p><u>MATH 180 Implementation Training— Part II</u></p> <ul style="list-style-type: none"> <li>▪ Implement key Instructional math routines to effectively engage students</li> <li>▪ Pace and differentiate instruction</li> <li>▪ Assess student learning to identify student needs and target instruction</li> <li>▪ Use the Teacher Dashboard to plan lessons, monitor progress, and plan differentiated instruction</li> </ul> <p><u>MATH 180 Leadership Overview Training</u></p> <ul style="list-style-type: none"> <li>▪ Understand the research-based materials and instruction</li> <li>▪ Explore each component of the Instructional Model</li> <li>▪ Learn how to use program data and classroom observations to monitor progress</li> <li>▪ Identify tools, strategies, and next steps for successful program implementation</li> </ul> <p style="text-align: right;">CONTINUED</p>

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<p>High-quality and ongoing professional development for teachers and principals</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>
<p>Involve parents in the planning, review, and improvement of the schoolwide program plan</p>	<p>The <i>MATH 180</i> Family Portal brings the learning home, providing guidance for parents to both understand the power of the growth mindset and cultivate mathematical learning opportunities at home. Additionally, a Parent Letter, available in English and Spanish, explains the goal of the <i>MATH 180</i> program, steps children will be completing as they learn, and ways to reinforce their learning at home. Student reports that display students’ progress and usage in the program can be shared with parents during conferences or sent home as progress indicators. Teachers are able to print Award Certificates as student master different instructional blocks. The certificates can be shared with parents, as well as used as examples of student achievement and progress.</p>
<p>Coordination and integration of Federal, State, and local services and programs</p>	<p><i>MATH 180</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"> <li>▪ Title IA—Improving Basic Programs</li> <li>▪ Title I—School Improvement Grants (SIG)</li> <li>▪ Title I—Supplemental Education Services (SES)</li> <li>▪ Title III—English Language Acquisition</li> <li>▪ 21<sup>st</sup> Century Community Learning Centers (21CCLC)</li> <li>▪ Race to the Top—District (RTT-D)</li> <li>▪ Investing In Innovation (i3)</li> </ul>