



Scholastic *MATH 180*

MATH 180 is a math intervention program for the Common Core 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, *MATH 180* is rooted in relevance and real world connections, providing a rich landscape for learning in multiple domains. Leveraging the CCSS-M, research on effective mathematics teaching and learning, and the need for educator support in implementing educational innovations, *MATH 180* provides the support students need to develop key knowledge and skills essential for 21st Century college and career success.

Instructional Content

MATH 180 focuses on deep understanding and mastery of the Core within the Core—the essential skills and concepts necessary to unlock Algebra and advanced mathematics. Carefully curated by Common Core architect Sybilla Beckmann, the *MATH 180* scope and sequence is built around a focused and coherent curriculum that enables struggling students to progress quickly and effectively toward grade-level curriculum.

MATH 180 is built from a carefully sequenced and paced progression of content. 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:

- Multiplicative Thinking
- The Distributive Property
- Division
- Fraction Concepts
- Fraction Relationships
- Fraction Multiplication and Division
- Decimals and Place Value
- Decimal Operations
- Both Sides of Zero

Instructional Design

The flexible instructional model in *MATH 180* 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 Groupinator™ analysis, students divide into two groups and rotate between stations for teacher-led group instruction and the *MATH 180* Software. During Group Instruction, the teacher facilitates instruction to build conceptual understanding, develop reasoning and communication skills, and interpret student thinking. The *MATH 180* 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. The *Brain Arcade*, available anytime, anywhere, provides each student with a personalized playlist of games that build strategic and procedural fluency.

Assessment & Progress Monitoring

MATH 180 includes a comprehensive suite of high-quality assessment tools and reports to monitor progress and differentiate instruction. *Scholastic Math Inventory* (SMI) can determine readiness for *MATH 180* and establish a baseline for measuring mathematical growth. Throughout the student software, students have the ability to take a Fast Track assessment, which provides an accelerated route through the software. Curriculum-embedded assessments, called *mSkills*, measure understanding to group instruction. To assess the shifts in students' mindsets, students take the Mindset Scan from Mindset Works®. All assessment data is immediately available to teachers and administrators through *Scholastic Central* and the Teacher Dashboard.

Scaffolded Instruction

The *MATH 180* 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.

The instructional path in *MATH 180* follows a progression from concrete to pictorial to abstract. Each unit begins with an Anchor Video that situates the math content in real, concrete settings. Instruction within that unit leverages the context established in the anchor video to introduce targeted problems with concrete images.

Those real math problems are then represented visually with generalizable interactive models, called *mTools*, which gradually abstract the math for students. Those models, once established, are connected with meaning to the numbers and symbols that will eventually constitute most of the math students perform. Students who need additional scaffolding can hold onto the visual models longer until they are ready to release them.

Strategies for English Language Learners

MATH 180 provides maximum support for English language learners with emphasis on language development and use of visual representations and routines that support classroom discourse.

- 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.
- Sentence Frames provide students struggling with language access to sentence structures they would have difficulty accessing on their own.
- Classroom Routines & 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.

Strategies for Special Education Students

For many older struggling students who have unique learning challenges or have been identified as in need of special education services, *MATH 180* helps meet their unique education goals.

- Individual Education Program (IEP) Supports—Point-of-use data and reports allow teachers and parents to measure student progress toward annual IEP goals.
- Adaptive, Individualized Pacing—The Adaptive Software allows students to move at their own pace and receive individualized, targeted instruction.
- Universal Design for Learning (UDL) Principles—Working with CAST, the *MATH 180* software aligns with the core principles of UDL, providing multiple means of representation, action and expression, and engagement.

Motivation & Engagement

MATH 180 employs the best practice of game design to convey success. Students are rewarded with stars, points, and badges for their accuracy, focus, perseverance, and effort, as well as for hitting performance goals and showing content expertise. Students receive badges more frequently early in the program; these early rewards are designed explicitly for students who may not have received recognition for their mathematical efforts in the past. They serve as concrete symbols of mastery that remind students of their competence and ability to overcome obstacles.

Home-School Connection

A Parent Letter, available in English and Spanish, explains the goal of the *MATH 180* 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.

Professional Development

MATH 180 Implementation Training— Part I

A full-day training in which participants are introduced to the clear instructional path in *MATH 180* and how it helps struggling students achieve mastery of content foundational critical for success with algebra. Learning outcomes include:

- Identify the ways *MATH 180* raises math achievement and increases college/career readiness
- Experience the *MATH 180* Instructional Model
- Use resources to effectively teach, manage, and assess learning in a *MATH 180* classroom
- Manage classes and student data with Scholastic Central and the Teacher Dashboard

MATH 180 Implementation Training— Part II

A full-day training in which participants deepen knowledge of the *MATH 180* instructional path and analyze class data in order to further increase student achievement. Learning outcomes include:

- Implement key Instructional math routines to effectively engage students
- Pace and differentiate instruction
- Assess student learning to identify student needs and target instruction
- Use the Teacher Dashboard to plan lessons, monitor progress, and plan differentiated instruction

MATH 180 Training for Building and District Leaders

In this half-day training district leaders, coaches, and principals learn to successfully implement *MATH 180* including: understanding the research-based behind *MATH 180*, identifying program features that accelerate math achievement and increase college and career readiness, monitoring implementation fidelity with the Leadership Dashboard, and analyzing report data to support accountability and work toward AYP targets. Learning outcomes include:

- Understand the research-based materials and instruction
- Explore each component of the Instructional Model
- Learn how to use program data and classroom observations to monitor progress
- Identify tools, strategies, and next steps for successful program implementation

 For more information about *MATH 180*, please refer to <http://teacher.scholastic.com/products/math180/about.htm>.