MATH 180

Aligns to IDEA, Part B
EDUCATION OF CHILDREN WITH DISABILITIES

The purpose of *IDEA, Part B—Formula Grant Programs* is to assist states in providing a free, appropriate public education (FAPE) in the least restrictive environment for children with disabilities ages 3 through 21. The following chart shows how ***MATH 180*** can support children with disabilities under IDEA, based on key components and recommendations from IDEA, Part B, Section 611. The criteria are drawn from the Federal *IDEA, Part B Final Rules and Regulations*, posted at:

http://www2.ed.gov/programs/osepgts/index.html

Components of a IDEA, Part B Program	*MATH 180*
Provide research-based and scientifically validated interventions	***MATH 180*** 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, *MATH 180* 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, *MATH 180* provides the support students need to develop key knowledge and skills essential for 21st Century college and career success. *MATH 180* focuses on deep understanding and mastery of the essential skills and concepts necessary to unlock Algebra and advanced mathematics. 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 ▪ Decimals and Place Value ▪ Decimal Operations ▪ Fraction Concepts ▪ Fraction Relationships ▪ Fraction Multiplication and Division ▪ Both Sides of Zero RESEARCH Three research-based principles have been engineered into *MATH 180* 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. 1. *MATH 180* 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, *MATH 180* builds student confidence and ensures evidence-based mastery of newly learned skills and concepts. CONTINUED

Components of a IDEA, Part B Program	*MATH 180*
Provide research-based and scientifically validated interventions *Continued*	2. *MATH 180* 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 *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. 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 *MATH 180* 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, *MATH 180* helps teachers become force multipliers by surrounding them with the resources they need to be greater at what they do best. The *MATH 180* Research Foundation Paper provides a detailed description of how *MATH 180* utilizes the latest research to prepare students in Grades 6 and above with the mathematical understanding and skills they need to thrive in the 21st century. It summarizes the key research principles underlying the development of *MATH 180* 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. 📖 To download a copy of the *MATH 180* Research Foundation Paper, please see: http://teacher.scholastic.com/products/math180/authors-advisors.htm
Provide access to the Core Curriculum taught in General Education classrooms	*MATH 180* focuses on getting struggling students to a deep understanding and mastery of the most important K-5 State Standards to prepare them for success with higher level math. The *MATH 180* scope and sequence is built on the essential math skills and concepts that deepen core understandings to help students achieve success with Algebra standards. *MATH 180* includes Standards from the following domains: Software Lessons ▪ Operations & Algebraic Thinking ▪ Number & Operations in Base Ten ▪ Number & Operations in Fractions ▪ The Number System ▪ Expressions & Equations CONTINUED

Components of a IDEA, Part B Program	*MATH 180*
Provide access to the Core Curriculum taught in General Education classrooms *Continued*	Problem Solving Lessons and Performance Tasks ▪ Geometry ▪ Statistics & Probability ▪ Measurement & Data ▪ Functions *MATH 180* aligns the curriculum, instruction, and assessment to follow the behavioral outcomes reflected in the Standards for Mathematical Practice. Students develop essential skills such as persevering in solving problems, demonstrating abstract and quantitative reasoning, constructing viable arguments, sharing reasoning with peers, and offering critique. The carefully constructed exercises and lessons in *MATH 180* challenge students to demonstrate their ability to solve complex problems by putting reasoning and thinking development at the forefront.
Use Supplemental Instructional materials, where appropriate, to strengthen the efficacy of the comprehensive core curriculum	*MATH 180* students have a place to record and share their work, thoughts, and mathematical understanding with the *mSpace*—a student book designed to promote active participation and extend critical practice with Next Generation performance tasks. Similar to the PARCC and Smarter Balance sample tasks, the performance tasks embedded in the *mSpace* measure students' ability to integrate knowledge and skills across multiple standards. The lessons require mathematical expertise, strategic thinking, reasoning, collaboration, and writing. *mSpace* instruction in organized into the following types of lessons: ▪ *mSpace* Concept Lessons, in which students build understanding and acquire new skills ▪ *mSpace* Game Lessons, in which students engage in collaborative and meaningful practice ▪ *mSpace* Problem Solving Lessons, in which student apply concepts and skills to multi-step problems
Educate students in the least restrictive environment consistent with their educational needs	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* Software builds mastery and a mathematical mindset for students through instructional videos, guided problem sets, adaptive formative assessments, and math games designed to build fluency. The *Brain Arcade*, 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.

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Implement a multi-tiered strategy designed to provide increasingly intensive interventions to those students who are not making adequate progress in the Core Curriculum	To accelerate learning for students below grade level, *MATH 180* maintains a tight focus on the concepts, strategies, and content knowledge that matter: those that constitute the progression to Algebra. Students in *MATH 180* progress from concrete to pictorial (or representational) to abstract representations of each concept. Students learn with understanding, far beyond the automatic application of an algorithm. In each successive unit of *MATH 180*, students are encouraged to activate prior learning and access the models and strategies common to multiple topics. In this way, students build mental connections between topics and transfer knowledge smoothly with a reduced strain on memory retrieval processes.
Provide ongoing progress monitoring of students' responses to high-quality, research-based intervention, and use it to guide the Individualized Education Plan (IEP)	*MATH 180* includes a comprehensive suite of high-quality assessment tools and reports to monitor progress and differentiate instruction. ▪ *Scholastic Math Inventory* (SMI) screens and places students, diagnoses strengths and challenges, and tracks overall Math progress toward Algebra and College and Career readiness. ▪ The *Math Reasoning Inventory* (MRI) determines students' mathematical reasoning and problem solving abilities. ▪ *mSpace* includes daily practice, progress monitoring tasks, and performance tasks at the completion of the teacher-led instruction. ▪ Curriculum-embedded assessments, called *mSkills*, monitor students' understanding of the instructional objectives. ▪ FastTrack assessments, in the *Learn Zone*, provide an accelerated route through the Software. Students have the option to Fast Track directly to mastery at the beginning of a *Learn Zone* lesson. ▪ The Mindset Scan, from Mindset Works®, monitors shifts in students' attitudes toward learning Math. *MATH 180* utilizes *Scholastic Central*, 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. *Scholastic Central* includes comprehensive class- and student-level data to monitor students' progress and performance in the program. Teachers use the following *Scholastic Central* data analysis tools to track student progress toward grade-level standards and Algebra readiness and monitor ongoing overall growth in math understanding. ▪ Data Snapshots—High-level data snapshots that support lesson planning and monitor class progress and performance ▪ Classroom Analytics—Monitor and track students' progress and performance in the software and compare assessment results ▪ Student Analytics—Track students' trajectory toward Algebra readiness and plan individualized instructional support. ▪ Data Reports—Track students' overall growth in mathematics CONTINUED

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Provide ongoing progress monitoring of students' responses to high-quality, research-based intervention, and use it to guide the Individualized Education Plan (IEP) *Continued*	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. Differentiation lessons delivered via the *Groupinator™* provide teachers with the support needed to target the needs of students who are ready for a challenge and those who need additional support.
Include literacy instruction that targets English Language Learners who have not yet been identified as needing Special Education services	Working with language expert Harold Asturias, the *MATH 180* advisors have developed instructional and classroom routines that foster student language learning through mathematical discourse that focuses on consistent academic language. *MATH 180* provides support for students and teachers to develop the necessary vocabulary of mathematics, as well as the general language required to understand, interpret, and communicate mathematical reasoning. *MATH 180* provides progressive "language development goals" within each section of every lesson, explicitly defined and outlined in all teacher materials. New mathematics vocabulary is introduced during guided practice with a consistent routine of "hear it, see it, say it, and define it." English Language Learners discuss, dissect, and understand their mathematical thinking through language-rich classroom routines and discussions. They write about mathematics and practice expressing their reasoning in the *mSpace*, supported by sentence frames. Language goals culminate in rich performance tasks and multistep word problems. The student software provides a personal, confidential, risk-free environment in which English Language Learners can respond, reflect, and access language resources, such as the bilingual mathematics glossary, at their own pace. Every written mathematical instruction in the student software, down to the granular level of single steps within a problem, has an accompanying audio recording that can be played aloud multiple times by students with low English-literacy levels. Spanish translations of all vocabulary terms are provided in the interactive glossary' sentence frames are included for assignments that require mathematical communication in writing. All mathematical concepts are supported by multiple forms of representation: mathematics tools and vocabulary have visual and aural representations, and engagement is stimulated through images and videos.
Inform parents of General Education services that would be provided and strategies to support their child's rate of learning	The *MATH 180* 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 *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 students master different instructional blocks. The certificates can be shared with parents, as well as used as examples of student achievement and progress.

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Provide a high-quality professional development plan to support teachers providing Special Education services, as well as those implementing RtI	<u>*MATH 180* Implementation Training— Part I</u> A full-day introduction to *MATH 180* for teachers starting with a focus on the first two weeks of implementation in the classroom and sustaining success throughout the school year. Teachers will: ▪ 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 <u>*MATH 180* Implementation Training— Part II</u> A full-day training in which teachers focus on planning and teaching with *MATH 180*. Teachers will learn to: ▪ 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 <u>*MATH 180* Training for Building and District Leaders</u> In this half-day training district leaders, coaches, and principals learn how to support *MATH 180* with various tools. They will : ▪ 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 <u>In-Classroom Support</u>—RECOMMENDED, at an additional cost 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.

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Coordinate with activities funded by and carried out under the Elementary and Secondary Education Act (ESEA)	*MATH 180* can be integrated with funds from state, local, private, and other sources. The federal funding programs for which it qualifies include: ▪ 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, *Response to Intervention* ▪ 21st Century Community Learning Centers (21CCLC) ▪ Race to the Top—District (RTT-D) ▪ Investing In Innovation (i3)