



Literacy and Intervention



Academy of MATH[®]

Web-based Intervention Tools

"Academy of MATH is unique in that it truly works at filling gaps while meeting individual needs. I haven't found another program or set of materials that does this as successfully."

Amy Bjork
Instructional Specialist
Anderson Elementary
Spring ISD, TX



Proven Tools to Close the Achievement Gap

Harness the power of technology to deliver truly individualized instruction tailored to each student's unique skill gaps. Based on neuroscience research and 20 years of classroom experience, the *Academy of MATH*[®], provides a rich set of web-based tools for intensive training in mathematics foundations, assessment, ongoing progress monitoring and reporting.

Get rapid results with your struggling 2–8+ students—including at-risk, English Language Learners and Special Education—with a proven approach that closes the achievement gap and builds mathematics skills for life.

To learn more about School Specialty Literacy and Intervention, visit: eps.schoolspecialty.com/transition





Foundation Skills of Mathematics

Thousands of at-risk 2–8+ students use the *Academy of MATH*® to develop proficiency in foundation skills. Students achieve significant and permanent gains through our proven instructional model that builds strong roots in the critical content areas identified by the National Council for Teachers of Mathematics (NCTM):

NUMBER & OPERATION – Develop students’ computational strategies in number sense, addition, subtraction, multiplication, division, and fractions.

- build practical understanding of whole number relationships, including base-ten number system and place-value concepts
- enable quick recall of addition, subtraction, multiplication, and division facts and facility with multi-digit operations

- reinforce knowledge of fractions and their equivalents, decimals, and adding, subtracting, multiplying, and dividing decimals and fractions.

ALGEBRA – Work with algebra in a variety of forms and expressions to build skills and confidence with complex concepts.

- interpret mathematical expressions and equations
- develop knowledge of the properties of rational numbers to solve problems with integers
- solve linear equations with variables using arithmetic of rational numbers

MEASUREMENT – Reinforce how to use and apply both standard and non-standard units for common attributes.

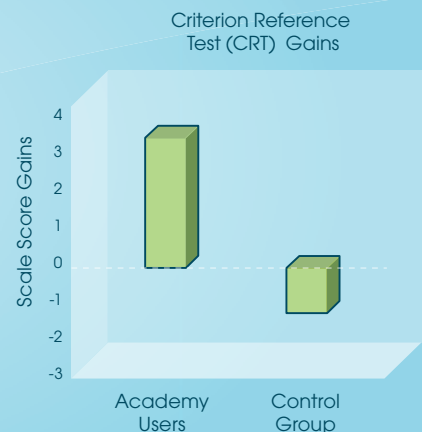
- identify and compare measurable attributes such as length, weight and area

RESULTS: GREAT FALLS PUBLIC SCHOOLS, MT

With the goal of improving the math skills of their struggling students, the Great Falls Public Schools District implemented the *Academy of MATH*® intervention software program in 16 of their schools. Over 900 students in grades 1–12 spent an average of 20 weeks and 28.5 hours training on the program, mastering 23 math skills.

Students averaged gains of 1.6 levels in the Academy Placement Test and 3.5 levels on the Criterion Reference Test (CRT).

On both tests, gains increased with the amount of time spent training on the *Academy of MATH*. In comparison, the control group showed no gains on the CRT.



SPANISH SUPPORT

- use formulas to solve problems involving surface area, volume, and circumference
- solve real-world problems related to time and money

GEOMETRY – The robust geometry curriculum in the *Academy of MATH* builds a strong foundation in geometrical concepts, moving from simple to complex.

- identify and compare properties of two- and three-dimensional shapes
- apply knowledge of shape and angle attributes to solve problems including congruency and symmetry

- understand and apply critical geometric concepts involving degrees, Pythagorean theory, and co-ordinate geometry

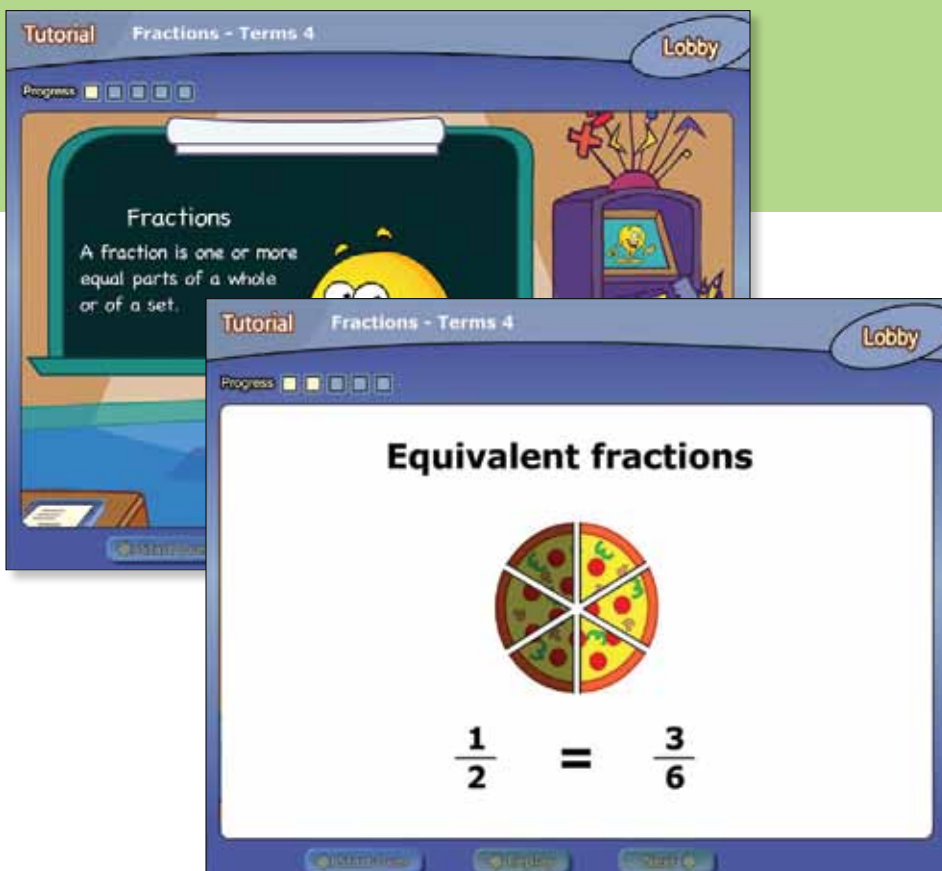
DATA ANALYSIS & PROBABILITY

– Using a highly interactive process, students learn to collect, represent, and analyze data.

- interpret frequency tables, bar graphs, picture graphs, and line plots and use them to solve problems
- use ratio, proportions, and percentages to interpret data sets, and use ordered pairs on coordinate graphs
- apply understanding of probability to predict the likelihood of events

An optional instructional module, *SpanishTutor™*, can be enabled on a per-student basis at any time to provide tutorials, assistance, and motivational elements in Spanish.

- Allows students to progress through training with instruction provided in a familiar way
- Offers positive feedback and support in Spanish through motivational characters
- Assists all Spanish-speaking students with neutral enunciation and generic accents
- Accelerates gains in math by removing the language barrier



Students work independently through NCTM content areas, systematically building proficiency with mathematical concepts.

“Almost every student using the *Academy of MATH* improved during our summer school program. Some went up two grade levels, and a couple went up three grade levels.”

Emily Wood-Sorenson, Educator
Hudson Middle School,
Hudson, WI

Digital Learning Platform

Target the gaps of at-risk learners wherever they are, with a web-based platform that requires no client installation. Using the *Academy of MATH*, students work independently on state-aligned content while the platform's patented technology adapts to their unique learning patterns.

TESTING – Create a snapshot of each student's math skills relative to grade level with online testing that automatically assigns an Individual Training Plan (ITP).

- administer group testing in less than 30 minutes for students of all ages and abilities
- capture baseline data for the start of each session

- determine independent, instructional and frustration levels for each content area

INDIVIDUALIZED INSTRUCTION –

Enable students to work at their own pace and develop independent learning skills.

- provide structured learning and build confidence with extensive tutorials, practice sessions, and positive feedback
- develop proficiency in academic language by focusing on terms first, then operations, and finally word problems in each subject area
- assign read-aloud support for struggling readers to overcome literacy barriers

RESPONSIVE INTERVENTION

ENGINE – Automate interventions and collect detailed data on student progress.

- adapt training to student responses, accelerating or remediating instruction as needed
- keep students focused with training designed to challenge but never frustrate
- collect rich, detailed response data to uncover specific strengths and weaknesses as students work through the program

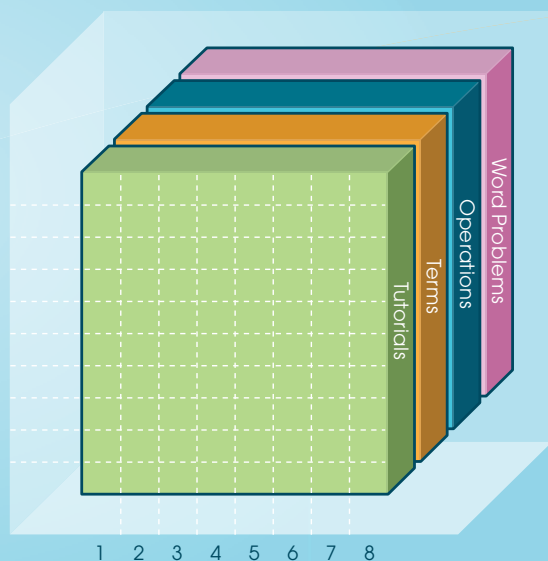
STEPS TO MATHEMATICAL PROFICIENCY

Academy of MATH utilizes a systematic approach to help struggling students develop mathematical proficiency. For each skill area and level, students build conceptual knowledge (terms), computational fluency (operations), and strategic competence (word problems).

One Skill at a Time

Academy of MATH supplements existing curriculum by helping students build confidence (tutorials), from basic proficiency to complex, conceptual proficiency in the 10 skill areas that align to the National Council of Teachers of Mathematics (NCTM) standards.

Number Sense
Addition
Subtraction
Multiplication
Division
Equations
Fractions
Measurements
Geometry
Graphing



The Academy of MATH's automated assessment generates a graphical scope and sequence of each student's individualized training program (ITP). As students work independently through their ITP, the responsive intervention engine adapts to accelerate or remediate where needed. At every step, data is collected to create a profile of each student's learning patterns.



AutoSkill System Schools **Classes** Users Reports **Print**

You are logged in as: **admin**

Academy of MATH® - Student training progress [Printer friendly](#) [Help](#)

Student: Deanna Maki
Class: Math Training Class
Teacher: Mary Smith
Training program: Level 4-5 stream

Student progress from Sep 20, 2007 to Jul 20, 2008

Summary
% completed: 37% Total skills completed: 49 out of 86
Total time on task: 9 hr 33 min Total number of teacher times: 2

Report details
View: [Progress over time](#) 86 training skills

Progress	Skill area: skill	Started	Completed	Mastery
1	Number Sense: Terms 4	Sep 20, 2007	Sep 26, 2007	★
2	Number Sense: Operations 4	Sep 26, 2007	Oct 8, 2007	★
3	Number Sense: Word Problems 4	Oct 8, 2007	Oct 8, 2007	★

AutoSkill System Schools **Classes** Users Reports **Print**

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Academy of MATH® - Student training progress [Printer friendly](#) [Help](#)

Student: Deanna Maki
Class: Math Training Class
Teacher: Mary Smith
Training program: [Level 4-5 stream](#)

Training progress in Equations: Operations 5
Current activity: practice

Progressing
This student is progressing well in the practice for this skill.
[Show trial details](#)
The program monitors student progress using the trial details and provides indicators of strengths and weaknesses. Feedback is provided through the program's individualized instructional decisions and suggested teacher intervention strategies.

Training trials summary
Last trial start date: May 5, 2008 10:16 AM Time on task for this skill: 17 sec
Number of successful trials: 0 out of 1

To help a student get past a single skill that is blocking progress, you can relax the mastery criteria for that one skill only. Click here: [Modify mastery criteria for Equations: Operations 5](#)

In all other situations, you should leave the mastery criteria at the values set by the Academy. However, if you strongly believe that your intervention is needed to adapt training in an entire skill area to a student's personal needs, then you can modify the mastery criteria for the skill area. Click here: [Modify mastery criteria for an entire skill area](#)

AutoSkill System Schools **Classes** Users Reports **Print**

You are logged in as: **admin**

Academy of MATH® - Student training progress [Printer friendly](#) [Help](#)

Student: Deanna Maki
Class: Math Training Class
Teacher: Mary Smith

Trial T2 errors for Equations: Operations 5
This diagnostic information provides the teacher with insight into the student's strengths and conceptual errors in relation to specific learning objectives. It can be used as a resource to adapt teaching and learning to meet student needs.

Frequency	Learning objective	Number of attempts	Question number
<input type="checkbox"/> 2	Simplify or evaluate the expression	1	equ-o-5-073t
<input type="checkbox"/>		1	equ-o-5-076t
<input type="checkbox"/> 2	Complete or solve the equation	1	equ-o-5-001t
<input type="checkbox"/>		1	equ-o-5-005t
<input type="checkbox"/> 12	Solve for the unknown	1	equ-o-5-013t
<input type="checkbox"/>		1	equ-o-5-069t
<input type="checkbox"/>		1	equ-o-5-035t

"The information we receive using the Academy allows us to make timely, data-driven decisions."

Johna Berg,
K-5 Instructional Technology Specialist,
East Valley School District, WA

Management and Reporting

Differentiate instruction using built-in diagnostics and progress monitoring data. In the *Academy of MATH*, teachers can access web-based tools that continually track student test results and progress – saving time and increasing the effectiveness of instructional groupings.

ASSESSMENT RESULTS – Pre-training data establishes proficiency relative to grade level.

FIDELITY MEASURES – Detailed metrics for training time on the program can be tracked against district goals.

SKILLS MASTERED – At-a-glance graphics list skill area and mastery for individual exercises.

PROGRESS FLAGS – Easy-to-read progress indicators show when students are struggling, doing well or are in need of teacher time.

SPECIFIC ERRORS – Precise data on areas of strength and weakness reveal patterns for differentiated instruction.

RUBRICS AND TOOLS – Error analysis, worksheets and sample exercises provide materials for individual or small-group instruction.

GAINS DATA – Post-test results are available in district, school and class reports.

PARENT REPORTS – Graphical progress reports can be printed for teacher-parent meetings.

School Snapshot Report

G	Class	Teacher	Average % of program completed	Average # skills completed	Average time in program (hh:mm)	Average time on task (hh:mm)	Average time on task per week (hh:mm)
---	School	---	42 %	41	20:00	13:55	0:21
U	Default Math...	Administrator, Autoskill	---	---	---	---	---
9	M - 1st Class	Jackson, Mr.	56 %	66	31:20	23:50	0:38
9	M - 2nd Class	Jackson, Mr.	64 %	66	31:24	22:29	0:33

Student Math Training Details Report

School: Mountainview High Subject: Math
 Class: M - 1st Class Student: Meloche, Amy
 Teacher: Mr. Jackson Grade: 9
 Training program: Level 1-3 stream

Student Math training details report from August 12, 2008 to February 13, 2009 5:09 PM

Student Math training skill area: **Fractions**
 Level: **Level 3** Question type: All

Summary: Number of skills mastered: 3 out of 3
 Total time on task: 56 min 58 sec Total number of teacher times: 0

Learning objective	Total questions	% answered correctly
Naming fractions	28	57 %
Subtracting decimals	27	63 %

“What I really like about the *Academy of MATH* is that I can quickly and easily pull up reports and see the progress of each student without having to write things down or look results up manually on paper.”

Joanne Butler-Kopriva, Teacher
 Kamiakin High School,
 Kennewick School District,
 Kennewick, WA

Summary progress views and detailed error data gives teachers insight into specific challenges and provides a convenient question reference for differentiated instruction.

Implementation Programs

Get outstanding results with quality professional development and support based on more than 20 years of experience in thousands of schools.

SCHOOLPRO PACKAGE – Maximize student gains using *Academy of MATH* with campus planning services, teacher training and supplementary materials:

- determine program goals, resources and scheduling
- develop understanding of program pedagogy and motivation system
- gain confidence with in-class coaching
- apply techniques for progress monitoring and data analysis

PROFESSIONAL DEVELOPMENT COURSES – Build internal capacity with Professional Development courses that provide:

- interactive learning in a range of topics, from basic to advanced

- convenient access to live workshops and online resources
- online testing to review best practices
- credits for teacher certification (course tracks available)

ADVANTAGE™ SUPPORT PROGRAM

– Included in Year 1, the Advantage Program helps schools get top results with *Academy of MATH*.

- Stay on-track with 1-800 telephone and email access to the Advantage support team
- Stay motivated using modeling tools, guidelines, and incentives for students
- Stay current with software and tools from our Customer Support portal
- Stay informed through the monthly *Helping Hand* newsletter

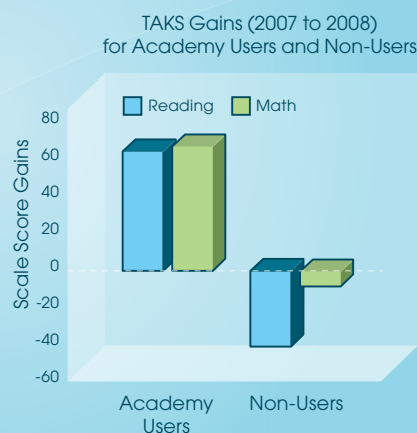


RESULTS: SPRING INDEPENDENT SCHOOL DISTRICT (ISD), HOUSTON, TX

Looking for Tier II intervention solutions, Spring ISD selected the *Academy of READING* and *Academy of MATH* for 2,176 students in second through ninth grade. Students trained on either product, three days per week for 30 minutes in a lab setting.

After just 14 hours of training in the *Academy of MATH*, students showed gains of 73 scale scores higher than non-users on the TAKS.*

*Based on TAKS scores for 580 students.



“Our district is committed to ensuring that every student is on track to meet and exceed learning goals. This research supports what our teachers told us throughout last school year – our struggling students who are using the *Academy of READING* and the *Academy of MATH* are seeing significant learning gains and improving their scores on the TAKS (Texas Assessment of Knowledge and Skills).”

Bob Thompson, Executive Director,
Secondary School Improvement,
Spring ISD, Houston, TX

Academy of MATH[®]

Intervention Solution

FEATURE HIGHLIGHTS

- Individualized Instruction
- Responsive Intervention Engine
- Easy Access
- Student Motivation
- Centralized Management System
- Flexible Scheduling
- Spanish-language Support
- Professional Services



Literacy and Intervention



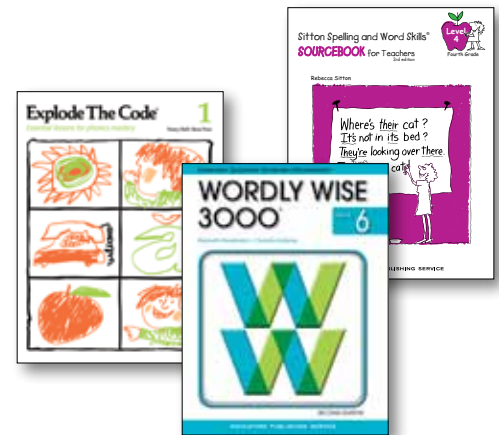
Who We Are

EPS[®] is now known as School Specialty[®] Literacy and Intervention, publisher of K–12 blended-media reading and math curriculum. These trusted materials build core skills and close the achievement gap for struggling students. Our comprehensive print and technology programs give K–12 educators powerful instructional tools that deliver high-quality curricula in the most effective modality for all students.

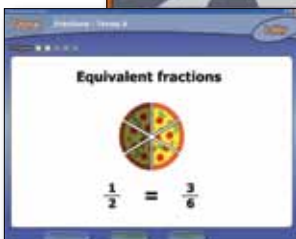
✓ BUILD CORE READING AND MATH SKILLS

Literacy subject areas such as vocabulary, comprehension, spelling, and math are critical in today's world of high-stakes tests and accountability to federal educational initiatives. Our best-selling instructional materials enable educators to provide direct, systematic instruction with scaffolded support and differentiated lessons.

Our leading programs such as *Wordly Wise 3000*[®], *Sitton Spelling and Word Skills*[®], and *Explode The Code*[®] offer teacher-led instruction through targeted, direct instructional methods. These resources provide engaging, on-level instruction that prepares students for academic success.



Academy of READING



Academy of MATH



✓ CLOSE THE ACHIEVEMENT GAP

Our Intervention programs are rooted in neuroscience and developed from more than 50 years of practical experience with learning differences. From screening through to intervention, progress monitoring, reporting, and professional development, we offer an integrated approach to Response to Intervention (RTI) that simplifies every stage of the process.

Our top Intervention programs include *S.P.I.R.E.*[®], *Academy of READING*[®], *MCI*, and *Academy of MATH*[®]—all proven programs that target the specific needs of struggling students to help them reach academic success.

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