



CURRICULUM REVIEW

NATIONAL CENTER FOR QUALITY AFTERSCHOOL

Afterschool Curriculum Choice



Mathematics Resources is an initiative of PEAR, the Program in Education, Afterschool and Resiliency at Harvard University and the SEDL National Center for Quality Afterschool. It is designed to help practitioners locate and make informed choices about high-quality mathematics resources to enrich their programs. Resources were selected based on proven use in afterschool settings, and include challenging lesson plans and organized activities.



This is a summary of the review from **The Consumers Guide to Afterschool Mathematics Resources**.

The guide includes in-depth reviews from math education experts as well as from practitioners who have experience using the specific curriculum. The full review is available at:

www.sedl.org/cgi-bin/mysql/afterschool/curriculum-choice.cgi?subj=m&resource=11

PROGRAM DESCRIPTION SUMMARY

Design Summary

Moving With Math is designed specifically for afterschool, as both a math curriculum and a youth development program. The intended audience is students who are below the basic level of math, those who are not understanding basic math concepts, and those who are not passing state tests. It is designed to help students master the transition from concrete to abstract mathematical learning by helping them to understand the reasons behind concepts through the use of manipulatives and activities.

Each lesson is hands-on and has a real-world connection. Games and activities are designed to be fun and promote kinesthetic learning and problem solving. There are many points of entry for students beyond traditional math, including drawing pictures, using vocabulary, having discussions, and journal writing. The curriculum includes a teacher guide, student book, pre- and post-assessments, class record sheet, parent handbook, and manipulatives

Evaluation Details

Moving With Math was independently evaluated by George Washington University, looking at impact on SAT-9 scores and teacher satisfaction. The study found significant gains in scores for students, and those who were at lower levels improved the most. Teachers ranked the program **highest** out of every math program they had tried.

Standards Alignment

- The curriculum is clearly aligned with state and national standards.
- It provides compelling graphs, charts, and research to support its efficiency and success rates.
- The objective for each lesson correlates with the state standards.

PRACTITIONER EXPERT REVIEW SUMMARY

Student Engagement

- Students particularly enjoy the active component of the curriculum, such as games.
- Direct instruction with manipulatives, begins with the concrete and then moves to the abstract.
- Students feel successful, and often say they like math when going through the program.
- Content is age-appropriate and topics are well-tailored for each grade level.
- Significant parent component included.
- The built-in assessments help students get feedback about their improvement and what specific skills to focus on.

Strengths and Challenges

Strengths

- Day-by-day lessons plans are clearly laid out and easy for the teachers to use.
- Program is research based.
- Repetition of skills and concepts is done in an effective way.
- Games and manipulatives are particularly engaging for students.
- Assessment technology produces detailed reports about the strengths and weaknesses of each student.

Challenges

- Neither practitioner found any major challenges with this curriculum.

CONTENT EXPERT REVIEW SUMMARY

Content

- This is a structured math curriculum, covering topics from grades pre-kindergarten through high school.
- Certain topics spiral across the grades for reinforcement.
- Moving with Math is an appropriate and detailed math curriculum for the classroom, however, it can also be implemented in a summer school, after school, or weekend class.
- The content appears to be accurate, explicit for the teacher, and hands-on by means of using lots of manipulatives.
- It assumes that students will understand and improve their skills through memorization and practice.

Diverse Student Needs

Adaptability

- Assessments help to identify students' skill sets.

Developmental Level

- Tailored for Pre-K through high school.
- Problems are developmentally appropriate.

Learning Styles Addressed

- **Movement/spatial learning:** Students are up and away from their desks when playing games.
- **Interpersonal learning:** The students can work together on problem solving.
- **Artistic learning:** During journaling, prompts are given to explain one's thinking.