

Committee for Mathematics Achievement Review of <i>Number Worlds</i> by SRA					Comments
Theoretical/ Research Basis	Program based on solid theories of learning and teaching mathematics conceptually.	Program based on solid theories of learning or teaching that focus on mathematics conceptual development.	Program based on theories of learning and teaching that focus primarily on skill mastery.	Program is not based on any theory of learning or teaching.	Theoretical basis of conceptual structure for number is based on research conducted and published by Case and Griffin and Clements and Sarama.
Effects on Student Achievement	Randomized trial experimental research indicates program's effect on student achievement.	Quasi-experimental design research indicates program's effect on student achievement	Non-experimental or anecdotal evidence indicates program's effect on student achievement.	No evidence of program's effect on student achievement is available.	Program is new; research on effects of student achievement has not been conducted at the middle school level.
Mathematics Content	Program's mathematics content aligns highly with Core Content 4.1 (90%)	Program's mathematics content aligns moderately with Core Content 4.1 (75%)	Program's mathematics content aligns minimally with Core Content 4.1 (50%)	Program's mathematics content alignment with Core Content 4.1 not evident.	Content correlation to KY Core Content 4.1 provided for grades 3 and 4 only. Complete materials have not been developed yet. The published scope and sequence suggests appropriate content.
Depth of Knowledge	Program focuses on Webb's Depth of Knowledge Levels 1, 2, and 3.	Program focuses on Webb's Depth of Knowledge Levels 1 and 2 only.	Program focuses on Webb's Depth of Knowledge Level 1 only.	Program's focus on Depth of Knowledge is not evident.	The materials emphasize DOK levels 1 and 2. Activities provide teachers opportunities to pose DOK level 3 questions.
Instructional Strategies	Program employs multiple and appropriate instructional strategies to develop all DOK levels.	Program employs limited but appropriate instructional strategies to develop most DOK levels.	Program employs limited instructional strategies to develop some DOK levels	Instructional strategies employed by the program are not clear.	The instruction manual lists concept building, skill building, strategy building, extended response and real-world applications.
Assessment Strategies	Program utilizes formative and summative assessments focused on all DOK levels.	Program utilizes formative and summative assessments focused on DOK levels 1 & 2.	Program utilizes summative assessments focused on all DOK levels.	Program utilizes summative assessments focused on DOK level 1 and 2.	Placement, weekly, and unit tests that include open-response questions and multiple-choice format are provided. Daily practice sessions to provide formative assessment are also provided.
Remediation Strategies	Program provides specific remediation strategies for common misconceptions.	Program provides general remediation strategies for common misconceptions.	Program's remediation strategies focus on specific factual/computation errors.	Program's remediation strategies do not have a focus.	The program offers general remediation on misconceptions, but does not address individual student misconceptions. The instructions often suggest repeating the same material.
Reporting System	Reporting system includes individual and composite data for teachers, parents and students.	Reporting system includes individual or composite data for teachers, parents and students.	Reporting system includes individual or composite data for teachers.	Program does not include a reporting system.	Teachers can use included software to generate paper and/or computer based tests. A gradebook manager keeps scores and creates individual and composite reports. An online student monitoring package is available for a fee.
Professional Development	Program offers PD that assists teachers in diagnosis and remediation.	Program offers PD that assists teachers in limited diagnosis or remediation.	Program offers PD that assists teachers in technical aspects of program.	Program does not offer PD for teachers.	PD to meet the needs of the district is offered. PD literature does not indicate a focus on diagnosis and remediation strategies.

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Teacher Materials/Technology	Teacher materials/technology provide substantial assistance to teachers in diagnosis and remediation.	Teacher materials/technology provide some assistance to teachers in diagnosis and remediation.	Teacher materials/technology provides minimal support to teachers.	No materials or technology are available to teachers.	Assessments are designed to provide diagnostic information to determine appropriate interventions. Program includes student text, teacher resources, and technology support materials. Differences in student learning styles are addressed through varied activities using manipulatives, pictures, and text.
Student Materials/Technology	Student materials/technology are user friendly and developmentally appropriate.	Student materials/technology are user friendly or developmentally appropriate.	Student materials/technology provide minimal support for students.	No materials or technology are available for students.	<i>Building Blocks</i> software uses pictures and graphs, is highly interactive, and focuses on problem solving. Student materials focus on building concepts and skills.
Diverse Learners	Program allows students to progress individually at an appropriate pace AND addresses the needs of diverse learners.	Program allows for student to progress individually at an appropriate pace OR addresses the needs of diverse learners.	Program has some individualized components and/or addresses the needs of some diverse learners.	Program is essentially the same for all students.	<i>Building Blocks</i> allows for some individualized pacing. The overall program uses manipulatives, pictures, and text.
Program Purpose and Use	This program is designed as an intervention program to support a regular curriculum. Program should be delivered by a certified teacher or paraprofessional. Students may stay in program for varying amounts of time.				
Costs	\$3,000-4,000 per school is typical.				
Time	45—60 minutes every day. Stand alone 45 minute lesson in addition to regular math lesson.				