

# MATH INSTRUCTION THAT SUPPORTS ENGLISH LEARNERS

To participate fully in learning and prepare for higher-level math, English learners must be able to understand and use English in social as well as academic settings.

**BUILDING A FOUNDATION FOR MATH SUCCESS** 

*Number Worlds* is designed to lay the foundation for future math proficiency by helping ELs:

- Prepare for Higher-Level Math:

  Position ELs for grade-level proficiency
  and math success with a standards-driven
  math solution.
- Perform Mathematical Reasoning: Encourage students to demonstrate mathematical reasoning through opportunities to draw conclusions, make predictions, prove hypotheses, and think logically.
- Connect Math to the Real World:

  Help students make connections between

  mathematical ideas and their everyday experiences.
- Communicate Mathematically:
   Develop communication skills by using mathematics as a tool for representing, discussing, thinking creatively, and collaborating.



BRING THEIR WORLD INTO THE MATH CLASSROOM WITH A PROVEN APPROACH:

### **PREPARE**

students to meet rigorous standards with a proven curriculum and enhanced planning tools.

### **ENGAGE**

students with interactive games, embedded activities, digital resources, and project-based learning.

### **ASSESS**

student achievement with dynamic, digital assessment and reporting tools.

### THE FAST TRACK TO EFFECTIVE INTERVENTION

*Number Worlds* gives English language learners the confidence and skills needed to excel in math. Best of all, it allows teachers to make a positive difference in their students' lives.

### **IMPROVE PROFICIENCY**

IN THE MATH CLASSROOM

The *Number Worlds* program includes a variety of materials designed to provide English language learner support:

• English Learner Support Guide

Teacher Edition

Student Edition

Vocabulary Cards



### GIVE TEACHERS THE RESOURCES THEY NEED

Each English Learner Support Guide includes the following:

- Individual Oral Assessments
- Vocabulary Instruction
- Practice Pages for three levels of language acquisition (Levels D – J)
- Summative Assessments
- Blackline Masters
- Vocabulary Flashcards for additional practice

### ENGAGE STUDENTS BY CREATING CONTEXT

Number Worlds supports Sheltered Instruction. This approach includes language techniques that support EL students as they see, hear, and experience unfamiliar words, acquiring language fluency as they develop math understanding.

### Creating Context:

English language learners must learn subject terminology in order to ask questions, read and comprehend text, and participate in class.

### Using Real Objects and Pictures:

The use of hands-on materials—including a variety of objects, images, and graphic organizers—accelerates the retention of key concepts.

### Modeling:

When new concepts and skills are introduced, prior knowledge provides a framework as students observe their teacher, use manipulatives, hear appropriate terminology, and practice what they have learned.

### Accessing Prior Knowledge:

Embedded support helps teachers encourage students to access prior knowledge and apply it to new concepts.

### • Explicit Instruction:

The program is carefully structured with step-by-step instruction that incorporates an appropriate amount of repetition and routine.

### Checking for Understanding:

*Number Worlds* builds in many modes for checking comprehension throughout the lesson so that all students can show what they know.



### ACHIEVE SUCCESS WITH DYNAMIC ASSESSMENTS AND REPORTS

Assessment tools allow teachers and administrators to place and monitor English learners through:

#### **Placement Tests:**

Students are placed at their appropriate instructional level before starting the program.

#### **Informal Assessments:**

Teachers can use online tools to record their observations.

#### Formal Assessments:

Number Worlds evaluates student understanding weekly and at the end of each unit.

### **Progress Reports:**

*Number Worlds* provides online reports to help educators share data and tailor instruction to the needs of each student.

- **Student reports:** See the skills and standards individual students have mastered and pinpoint areas for improvement.
- Class reports: Identify class performance on specific skills and topics.
- Administrator reports: Compare student proficiency across classes and schools.





## INTERACTIVE LEARNING TOOLS:

#### **Math Games:**

- Working in pairs and groups allows English learners a way to understand in a lowanxiety environment and allows more learning to take place.
- Fun and motivating math games provide additional opportunities for students to practice.
- Specifically designed games model strategic thinking so that even students at beginning levels of proficiency can demonstrate strategic, higher-level thinking.

### **Digital Math Tools:**

- Online game boards and number lines allow students to model their mathematical understanding.
- Digital manipulatives allow students to explore and demonstrate abstract concepts in a concrete way.







### BUILDING THE FOUNDATION FOR A BETTER FUTURE

Number Worlds is designed to help English learners in grades PreK-8 master their core math curriculum and build the language proficiency that higher-level math demands.

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