

## General description/overview

*Fundamentos de los Números Enteros: Nivel 1™ (FNE-1)* is an ¡Avanzando! Matemáticas™ product. *FNE-1* is a Spanish translation and adaptation of *Whole Number Foundations Level 1 (WNF-1)*, the *Moving Up! Mathematics™* intervention program for first grade students. With instruction *in Spanish*, *FNE-1* is designed to accelerate the mathematics achievement of first grade students who experience difficulties in developing proficiency with advanced whole number concepts and skills.

- Tier 2 small-group intervention
- 60-lessons focused on concepts and skills from two essential math domains in the Common Core State Standards: Operations and Algebraic Thinking, and Number and Operations in Base Ten

## Product information

*Fundamentos de los Números Enteros: Nivel 1 (FNE-1)* is designed to accelerate the mathematics achievement of first grade students who are at risk for mathematics difficulties by focusing on advanced whole number concepts and skills. Topics targeted in *FNE-1* include place value and base ten concepts with numbers to 120, number properties, number combinations, addition and subtraction of 2-digit numbers without renaming, and word problem solving. With *FNE-1*, instruction is delivered in Spanish and includes the same math content as the English program *Whole Number Foundations Level 1*.

- Tier 2 small-group intervention, provided *in addition* to core (Tier 1) mathematics instruction
- 60-lessons delivered in small-group formats, three to five times per week in 30 minute sessions

### Conceptual Framework:

- *Development of Whole Number Concepts and Skills*, including number sense, base ten, place value, number combinations, and multi-digit operations
- *Procedural Fluency and Automaticity*
  - Systematic practice and review within and across lessons
  - Checks for mastery at the end of each activity
  - Math Practice worksheets to monitor students' mastery of concepts and skills
- *Vocabulary and Discourse*
  - Key mathematical vocabulary is identified, explicitly taught and reviewed.
  - Scripted lessons ensure continuity and precise definitions.
  - Students are provided opportunities to use mathematical vocabulary to reason and provide justification.
- *High quality instructional interactions*: Each lesson includes frequent opportunities for students to practice skills and demonstrate their knowledge.

### Instructional Design Components

- *Explicit and systematic instruction*: Lessons offer a variety of teacher models, scaffolded instructional examples, and opportunities for academic feedback.
- *Prerequisite knowledge identified and pre-taught*: Lessons facilitate a critical connection between previously learned content and more advanced whole number concepts and skills.
- *Carefully selected and sequenced instructional examples*: Lessons promote student success by introducing concepts through simpler examples and then gradually increasing the difficulty as students' understanding of the concept grows.
- *Deliberate opportunities for student practice*: Frequent and systematic opportunities build procedural fluency.
- *Mathematical models and representations*: Lessons incorporate a variety of math models including a number line, hundreds chart, and place value models, to build conceptual understanding.

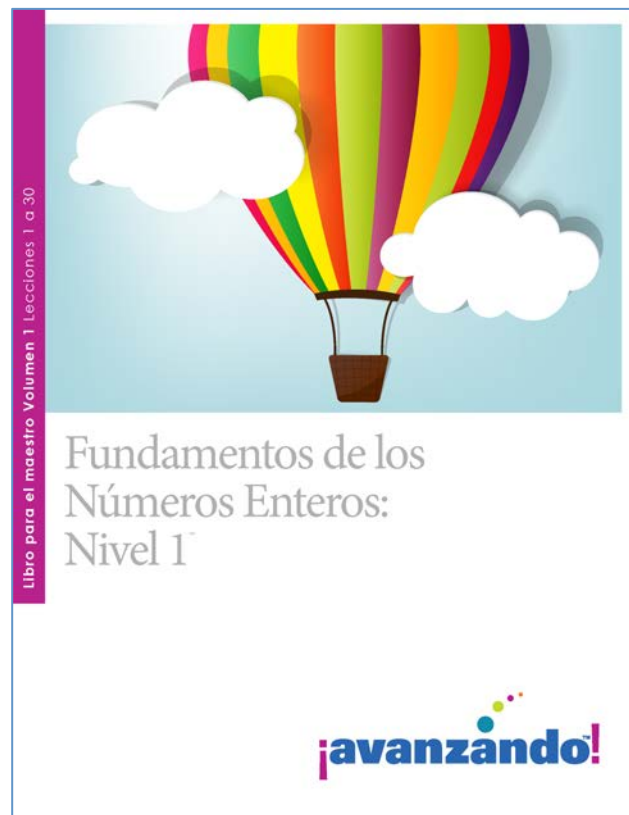
### Materials

Formats consist of downloadable PDFs for self-printing according to a *Distribution License Agreement*, or as pre-printed materials that will be shipped to you.

*Fundamentos de los Números Enteros: Nivel 1* includes 60 lessons divided into two Teacher Books, Worksheets, Program Support Materials, and a manipulative list.

- **Libro para el maestro Volumen 1** (Teacher Book 1): Teacher's Guide and Lessons 1 – 30
- **Libro para el maestro Volumen 2** (Teacher Book 2): Lessons 31 – 60
- **Worksheets:**
  - 21 different, reproducible Fact Timing worksheets
  - 8 different, reproducible Number Writing worksheets
- **Program Support Materials:**
  - Reproducible masters of number writing worksheets, 100 and 120 counting charts, place value chart, number cards, addition and subtraction fact flashcards, and a fact timing data sheet
- **Manipulative list:** Manipulatives are required for implementation of the program and are NOT included. These manipulatives are commonly available in first grade classrooms, or may be purchased from educational retailers.

These products can be purchased together as an *Intervention Kit*. Additional and/or replacement *Teacher Books* may also be purchased separately as downloadable PDFs for self-printing.



### Research

*Whole Number Foundations Level 1*, the English version of FNE-1, has shown positive outcomes for students. The Spanish program uses the same conceptual framework and instructional design principles as the English program. In addition, objectives and math content of the two programs are identical and directly aligned.

The following is a summary of research results related to *Whole Number Foundations Level 1*, the English program.

*Whole Number Foundations Level 1* (WNF-1) was developed and evaluated with funding from the U.S. Department of Education’s Institute of Education Sciences (IES). An initial study demonstrated that teachers could feasibly implement the WNF-1 intervention in schools (Doabler et al., 2015). A follow-up pilot study of WNF-1 involved approximately 90 at-risk students in 9 first grade classrooms in Oregon (Clarke et al., 2015). Eligible students were randomly assigned to the WNF-1 intervention or a control condition that implemented the standard district mathematics instruction. Student mathematics achievement was collected at pretest and posttest. Results suggested that WNF-1 students made greater gains than their peers in the control condition on a measure considered proximal to the WNF-1. Specifically, findings revealed a medium effect size favoring WNF-1 on the ProFusion measure (Hedges’  $g = 0.15$ ,  $p = .082$ ).

Based on the What Works Clearinghouse standards (WWC, 2013), these results indicate WNF-1 has a “statistically significant positive effect” on student math outcomes. This initial study of WNF-1 (i.e., Fusion) was also reviewed by the National Center on Intensive Intervention (NCII), which rated it as having “partially convincing evidence” regarding the targeted outcome measure, and “convincing evidence” regarding the study design, participants, fidelity of implementation, and broad math outcome measures.

Clarke, B., Doabler, C. T., Strand Cary, M., Kosty, D., Baker, S., Fien, H., & Smolkowski, K. (2014). Preliminary evaluation of a tier 2 mathematics intervention for first grade students: Using a theory of change to guide formative evaluation activities. *School Psychology Review, 43*(2), 160 - 178.

Doabler, C. T., Clarke, B., Fien, H., Baker, S. K., Kosty, D. B., & Strand Cary, M. (2014). The science behind curriculum development and evaluation: Taking a design science approach in the production of a tier 2 mathematics curriculum. *Learning Disability Quarterly, 38*(2), 97 – 111. doi: 10.1177/0731948713520555

### Pricing

Formats consist of downloadable PDFs for self-printing in accordance with a *Distribution License Agreement* along with printing guidelines, or as pre-printed materials that will be delivered to you\*. The table below is provided for planning purposes. See <https://dibels.uoregon.edu/market> for specific ordering information.

<i>Item</i>	<i>Ordering recommendations</i>	<i>Price for PDF license to print</i>	<i>Price for pre-printed materials</i>
<b>Intervention Kit.</b> Includes Teacher Book 1 and Teacher Book 2; reproducible Worksheets (each set includes 21 Fact Timing and 8 Number Writing Worksheets) and Program Support Materials, manipulative list*	Order at least one complete kit if a school is planning to implement the intervention.	\$300	\$522
<b>Libro para el maestro Volumen 1</b> (Teacher Book 1). Includes Teacher’s Guide, Lessons 1 – 30.	May be ordered in addition to the <i>Intervention Kit</i> for an additional interventionist, or as a replacement.	\$125	na
<b>Libro para el maestro Volumen 2</b> (Teacher Book 2). Includes Lessons 31 – 60.		\$125	na

\*Prices for PDF delivery are for a license to print one copy, unless otherwise specified, and do not include the cost of printing. Prices for pre-printed materials include shipping anywhere in the contiguous United States.

\*\*Manipulatives are not included.