





GO Solve™ Word Problems


Aligns to Title I, Part A


The purpose of *Title I, Part A – Improving Basic Programs* is to ensure that children in high-poverty schools meet challenging State academic content and student achievement standards. These schools must develop a comprehensive plan to improve teaching and learning. The following chart shows how *GO Solve™ Word Problems* can support a schoolwide *Title I* program. The criteria are drawn from the Federal *Title I Final Rules and Regulations* posted at:

<http://www.ed.gov/policy/elsec/reg/title1/fedregister.html>


Key Criteria for Title I, Part A Funding	 GO Solve™ Word Problems
<p>1. Provide opportunities for all students to meet the State's proficient and advanced levels of student academic achievement, particularly in the areas of math, reading/language arts, and science</p>	<p><i>GO Solve Word Problems</i> positions students for success in algebra by laying a foundation of conceptual understanding and problem-solving skills. This engaging, research-based software program is aligned to State and National Standards in Mathematics. Students master problem solving through step-by-step instruction and practice, at their own pace and at a level automatically adapted to each student.</p> <p><i>Go Solve Word Problems</i> teaches students to recognize mathematical situations in word problems, comprehend problems with the aid of graphic organizers, and plan solutions with addition, subtraction, multiplication, and division. The instructional focus of the program is on problem solving, numbers and operations, and communication and representation. Self-paced, interactive tutorials introduce graphic organizers to map out mathematical situations. <i>Go Solve</i> is available as three separate titles:</p> <ul style="list-style-type: none"> ▪ Addition and Subtraction: Parts-and-Total, Change, Comparison ▪ Multiplication and Division: Equal Parts, Area and Array ▪ Advanced Multiplication and Division: Part/Whole, Comparison, Proportion
<p>2. Address the needs of all students in the school, particularly the needs of low-achieving students and those at risk of not meeting the State's student academic standards</p>	<p>The <i>GO Solve</i> adaptive leveling system assures differentiation for students at all levels. When a student has reached a new milestone or is having trouble using the program, the Message Center automatically alerts the teacher. He/she can use these performance alerts to increase a student's success by:</p> <ul style="list-style-type: none"> ▪ Examining reports to see if the student's performance was low across every skill or shows particular difficulty with selected skills <p style="text-align: right;"><i>(Continued)</i></p>

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<p>Address the needs of all students in the school, particularly the needs of low-achieving students and those at risk of not meeting the State's student academic standards Continued</p>	<ul style="list-style-type: none"> ▪ Directing the student to review the tutorial instead of learning new material ▪ Sitting with the student and observing the areas of difficulty ▪ Enabling all the software learning supports, including the hints, calculator, and notebook ▪ Evaluating whether the student has performed poorly on just one tutorial or most tutorials <p><u>English-Language Learners</u></p> <p>Teachers can customize the <i>GO Solve</i> software settings to support English-Language learners. Strategies include:</p> <ul style="list-style-type: none"> ▪ Setting the text-to-speech setting on and using it throughout the program when the audio button appears ▪ Using the animation controls to pause and rewind animations ▪ Using the <i>Repeat Movie and Replay Audio</i> features during the tutorial activities <p><u>Students with disabilities</u></p> <p><i>GO Solve</i> contains Universal Design features that accommodate students with disabilities or different learning styles. These include:</p> <ul style="list-style-type: none"> ▪ Keyboard focus and navigation ▪ Text-to-speech with a choice of natural and synthesized voices ▪ Voice speed and pitch for synthesized speech ▪ Text captioning during the tutorial animations ▪ Compatibility with screen readers ▪ Variable font sizes ▪ High-contrast settings
<p>3. Close the achievement gap between high- and low-performing children, especially the achievement gaps between minority and nonminority students, and between disadvantaged children and their more advantaged peers.</p>	<p><i>GO Solve Word Problems</i> mixes whole class instruction and individualized student practice. Animated tutorials introduce concepts to the entire class and help students build the connection between mathematical situations and the actual word problems they represent. Students practice using the organizers in adaptive sessions that adjust the difficulty of the problems based on each student's performance. The problems can also be personalized about people, places, and objects students know to engage students in the problems.</p>

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<p>4. Use effective methods and instructional practices that are based on scientifically based research and that:</p> <ul style="list-style-type: none"> ▪ Strengthen the core academic program ▪ Provide an enriched and accelerated curriculum ▪ Increase the amount and quality of learning time, such as providing an extended school year, before- and after-school programs, and summer programs and opportunities 	<p><i>Go Solve</i> incorporates research-validated methods that have been shown to produce good problem-solving habits and improved performance. Specifically, the program explicitly introduces students to the most common types of arithmetical situations reflected in word problems. <i>GO Solve</i> uses graphic organizers to help students construct concrete mental models of the situations and relationships among the information in each problem. The program applies a proven instructional approach built around anchored instruction and worked examples.</p> <p>Strengthen the core academic program</p> <p><i>GO Solve Word Problems</i> teaches students how to be better problem solvers in math. The program helps students see the underlying mathematical models, or situations, represented in arithmetic word problems. <i>GO Solve</i> uses animated anchors to help students visualize the relationships between the graphic organizers and the actual, real world problems they represent. The program offers multiple visual examples within each mathematical situation to help students construct accurate mental models of what the words and diagrams mean.</p> <p><i>GO Solve</i> incorporates anchored instruction with the research-based approach known as worked examples to demonstrate and give students practice using graphic organizers to represent the information and situation in each word problem. The graphic organizers help students construct a concrete, generalized mental model of the problem that highlights the mathematical relationships among the quantities and values. In addition, <i>GO Solve</i> incorporates problem personalization, which has been demonstrated to improve motivation and comprehension.</p> <p>Provide an enriched and accelerated curriculum</p> <p><i>GO Solve Word Problems</i> follows the research-based <i>schema-based</i> instructional model which suggests the use of drawings and diagrams to reflect mathematical situations. As the research suggests, <i>GO Solve</i> presents a different diagram, or graphic organizer, for each problem situation. In addition, the organizers used in the program incorporate differentially sized boxes for additive compare problems. The mathematical relationships that are represented by graphic organizers include:</p> <p><u>Addition & Subtraction</u></p> <ul style="list-style-type: none"> ▪ Parts and Total ▪ Change ▪ Comparison <p style="text-align: right;"><i>(Continued)</i></p>

Key Criteria for Title I, Part A Funding	 GO Solve™ Word Problems
<p>Use effective methods and instructional practices that are based on scientifically based research, Continued</p>	<p><u>Multiplication & Division</u></p> <ul style="list-style-type: none"> ▪ Equal parts (with remainders) ▪ Area and Array ▪ Part to Whole ▪ Comparison ▪ Proportion <p>Increase the amount and quality of learning time</p> <p><i>Go Solve Word Problems</i> follows an instructional approach closely aligned to the worked examples model. The program breaks down the problem-solving process into clear sub goals for each arithmetic situation.</p> <ol style="list-style-type: none"> 1. Students first parse a mathematical situation into the organizer. The goal here is simply to recognize how the information fits into the model. 2. Next, the program introduces an actual problem with an unknown and focuses on the variations of where that unknown can fit into the schematic organizer. 3. <i>GO Solve</i> then leads students through specific complexities associated with each model. After each instructional sub goal is presented, students practice applying what they have learned in the worked example. <p>Through this systematic approach, students internalize the problem-solving schema.</p>
<p>4. Provide high-quality and ongoing professional development that aligns with the State's academic standards</p>	<p>Scholastic provides a variety of on-site, customized <i>GO Solve</i> training to ensure successful use of the program. In the <i>GO Solve</i> Implementation Training, participants learn to:</p> <ul style="list-style-type: none"> ▪ Implement <i>Go Solve</i> effectively to provide instruction and practice on solving word problems ▪ Integrate <i>Go Solve</i> into the existing mathematics curriculum ▪ Assess student progress using the program's management and reporting system ▪ Develop an implementation plan that works with their existing curriculum and resources ▪ Weave research-based elements of the program, such as graphic organizers, into their teaching

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5. Involve parents in the planning, review, and improvement of the schoolwide program plan	Teachers can share students' performance and progress reports with their parents during conference times. The Student Progress Report displays a student's performance over time, including overall practice, tutorials completed, and the proportion of problems answered correctly on the first attempt. The Tutorial Summary Report shows a summary of the student's performance on all tutorial activities, across all modules.
6. If appropriate, coordinate with other funding programs	<p><i>GO Solve™ Word Problems</i> can be integrated with funds and money from state, local, private and other sources. The federal funding programs for which it qualifies include:</p> <ul style="list-style-type: none">▪ Title IA—Improving Basic Programs▪ Title I—Supplemental Educational Services▪ Title IID—Enhancing Education through Technology▪ 21st Century Community Learning Centers▪ Enhancing Education through Technology▪ GEAR Up▪ IDEA, Part B▪ IDEA, <i>Response to Intervention</i>