





GO Solve™ Word Problems



Aligns to Enhancing Education Through Technology Criteria


The primary goal of the *Enhancing Education through Technology* (Ed Tech) program is to improve student academic achievement through the use of technology in schools. According to the federal *Guidance on the Enhancing Education through Technology (Ed Tech) Program*, a Local Education Agency's (LEA) technology plan must address 13 specific components in order to qualify for formula or competitive funding. The following chart details how *GO Solve™ Word Problems* helps meet 12 of these requirements.

Required Ed Tech Components	GO Solve™ Word Problems
<p>1. <u>Strategies for improving academic achievement and teacher effectiveness:</u> A description of how the applicant will use <i>Ed Tech</i> funds to improve the academic achievement, including technology literacy, of all students attending schools served by the LEA and to improve the capacity of all teachers in schools served by the LEA to integrate technology effectively into curriculum and instruction</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. <u>Goals:</u> A description of the applicant's specific goals, aligned with challenging state standards, for using advanced technology to improve student academic achievement</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>3. <u>Steps to increase accessibility:</u> A description of the steps the applicant will take to ensure that all students and teachers have increased access to technology</p>	<p>The GO Solve 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▪ 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 GO Solve 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>GO Solve 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

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<p>4. <u>Promotion of curricula and teaching strategies that integrate technology:</u> A description of how the applicant will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction, based on a review of relevant research and leading to improvements in student academic achievement</p>	<p>GO Solve teaches students to recognize mathematical situations in arithmetic word problems, comprehend word problems with the aid of graphic organizers, and plan solutions. 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>GO Solve can be used for students in Grades 3-6 for on-grade level students, as well as remediation for students in Grades 7-8. The program offers three modules:</p> <ol style="list-style-type: none"> 1. Addition and Subtraction 2. Multiplication and Division 3. Advanced Multiplication and Division <p>GO Solve includes more than 1,500 practice word problems deliberately composed with different numeric, linguistic, and problem characteristics. The program adapts to each student's ability to ensure appropriate levels of challenge for all students. GO Solve includes:</p> <ul style="list-style-type: none"> ▪ Self-paced, interactive tutorials that introduce graphic organizers to map out mathematical situations ▪ Adaptive leveling to assure differentiation for students at all levels ▪ Software supports that include hints, calculator, notebook, and text-to-speech ▪ Customization of word problems to engage students in problem solving ▪ Reporting tools to monitor student or class progress and usage
<p>5. <u>Professional development:</u> A description of how the applicant will provide ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center</p>	<p>Scholastic provides a variety of on-site, customized GO Solve training to ensure successful use of the program. In the GO Solve Implementation Training, participants learn to:</p> <ul style="list-style-type: none"> ▪ Implement Go Solve effectively to provide instruction and practice on solving word problems ▪ Integrate Go Solve 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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<p>6. <u>Technology type and costs:</u> A description of the type and costs of technology to be acquired with education technology funds, including provisions for interoperability of components</p>	<p><i>Go Solve Word Problems</i> blends whole class, group, and individualized instruction making for a flexible implementation into any classroom. The program can be installed as a site license, 10-computer license package, or single computer license. Specific system requirements for each type of installation are available upon request.</p> <p> For additional information about <i>GO Solve Word Problems</i>, visit www.tomsnyder.com/gosolve.</p>
<p>7. <u>Coordination with other resources:</u> A description of how the applicant will coordinate activities funded through the education technology program with technology-related activities supported with funds from other sources</p>	<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>
<p>8. <u>Integration of technology with curricula and instruction:</u> A description of how the applicant will integrate technology (including software and electronically delivered learning materials) into curricula and instruction, and a timeline for this integration</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><u>Multiplication & Division</u></p> <ul style="list-style-type: none"> ▪ Equal parts (with remainders) ▪ Area and Array ▪ Part to Whole ▪ Comparison ▪ Proportion

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<p>9. <u>Innovative delivery strategies:</u> A description of how the applicant will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources</p>	<p>GO Solve teaches students how to be better problem solvers; the program helps students see the underlying mathematical models, or situations, represented in arithmetic word problems. GO Solve uses animated anchors to help students visualize the relationships between the graphic organizers and the 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>GO Solve 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, GO Solve incorporates problem personalization, which has been demonstrated to improve motivation and comprehension.</p>
<p>10. <u>Parental involvement:</u> A description of how the applicant will use technology effectively to promote parental involvement and increase communication with parents, including a description of how parents will be informed of the technology used</p>	<p>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.</p>
<p>11. <u>Accountability measures:</u> A description of the process and accountability measures that the applicant will use to evaluate the extent to which activities funded under the program are effective in integrating technology into curricula and instruction, increasing the ability of teachers to teach, and enabling students to reach challenging state academic standards</p>	<p>GO Solve Word Problems includes various student assessment features. Interactive activities check for student understanding after each instructional animation. Word problem performance is measured by success on the first try, number of problems solved, and adaptive levels. Detailed performance reports capture data on word problem performance, use of learning supports, and time on task. Performance data can be analyzed by word problem situation, number form, and other characteristics.</p>
<p>12. <u>Supporting resources:</u> A description of the supporting resources, such as services, software, other electronically delivered learning materials, and print resources, that will be acquired to ensure successful and effective uses of technology</p>	<p>GO Solve complements a mathematics curriculum in Grades 3-6, and can be used as a powerful intervention with students in Grades 7-8 who struggle with word problems. The following supporting resources are included:</p> <ul style="list-style-type: none"> ▪ Mac/Win CD-ROM for network and stand alone use ▪ Comprehensive Teacher's Guide with student activities ▪ Quickstart Card and Installation Guide