Intervention Name:
Word-Problem Mnemonics

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<td>Setting: (check all that apply)</td>
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<td>Small-group</td>
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<td>Individual</td>
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Function of Intervention: The purpose of a word-problem mnemonic is to provide students with a framework for solving word problems. The mnemonic reminds students to work step-by-step through a word problem. Some word-problem mnemonics can be used for problem solving beyond basic word problems.

Brief Description: Mnemonics are strategies and techniques that aid in memory (Mastropieri & Scruggs, 1998). With a word-problem mnemonic, the mnemonic helps students remember the steps to solving a word problem. Often, the first letter of each step can be combined to spell a word that is easy to remember.

Teachers should select one mnemonic that can be used to solve (almost all) word problems at the student’s grade level. Some mnemonics work better for elementary students solving simple word problems, whereas other mnemonics are better for multi-step word problems used in middle or high school. Once a teacher selects a mnemonic, this mnemonic should be used throughout the year during word-problem instruction and practice.

Examples of word-problem mnemonics*:

**CUBES**
- Circle the numbers
- Underline important words
- Box the question
- Eliminate unnecessary information
- Solve and check

Example of CUBES: This mnemonic (CUBES) can be used with a 5th grader to organize information and determine how to solve a word problem. After the student has learned each step of the CUBES mnemonic and can recall and apply the mnemonic, the student may use the CUBES strategy to solve all grade-level word problems. For example, this mnemonic can be applied to word problems that require the student to solve addition, subtraction, multiplication, and/or division problems, as well as problems involving whole numbers and/or fractions.
*We provided citations when available. Many mnemonics are readily available from a variety of sources, and it is difficult to trace the origin of the mnemonic. This is not an exhaustive list, as there are many more word-problem mnemonics available.
**Procedures:**

- **Duration:** The time it takes for students to learn and practice the mnemonic to mastery may vary. Explicit instruction should be used to introduce and practice each mnemonic. Students must know the mnemonic and be familiar with the application prior to using it independently.
- **Teacher training:** Teachers can use mnemonics that have already been created or create their own. While formal training is not necessary, it is recommended that teachers read one of the articles in the references.
- **Instructional practices:** With a whole class, small group, or individual student, teachers explicitly introduce the mnemonic and demonstrate solving a word problem with the mnemonic. Teachers should provide multiple examples, with different types of word problems, and allow for guided and independent practice with teacher feedback. Visual cues may be used in combination with the mnemonic.
- **Monitoring system:** During the learning process, teachers should ask students to recall and apply the steps of the mnemonics.

**Critical Components (i.e., that must be implemented for intervention to be successful):** The mnemonic must be easy for students to remember and follow. Teachers should select one mnemonic that can be generalized and used across word problems. Teachers must provide explicit instruction on the mnemonic along with multiple opportunities for practice.

**Critical Assumptions (i.e., with respect to prerequisite skills):** Mnemonics can be used to solve word problems varying from the simple to complex. The chosen mnemonic should help students organize word-problem information for almost all word problems at the student’s performance level. Word-problem mnemonics help the student organize information to solve the problem; however, students must have the prior knowledge and skills necessary to perform the computations required in the word problem.

**Materials:**

Visual image of mnemonic


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