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FOR THE TEACHER

Strategies to Achieve Mathematics Success (STAMS) provides essential instruction in key mathematics strategies. The series is the instructional piece of the mathematics system that includes the ***Comprehensive Assessment of Mathematics Strategies (CAMS)*** diagnostic series, and the ***Comprehensive Assessment of Mathematics Strategies II (CAMS II)*** assessment series. Diagnose with ***CAMS***, teach with ***STAMS*** and assess with ***CAMS II***. Used alone or as part of the system, ***STAMS*** provides precise instruction in and practice of the strategies students need to master in order to achieve mathematics success in years 2 to 9.

In ***STAMS Book 8,*** students receive step-by-step instruction in 12 mathematics strategies:
- number sense
- estimation
- addition
- subtraction
- multiplication
- division
- time and money
- working with measurements
- algebra
- shape
- probability and averages
- interpreting data.

Each of the strategy lessons focuses on one specific mathematics area. Teaching sequences use metacognition to lead students to understandings about the mathematics concepts.

The content of the student book is based on themes encountered in students' everyday experiences and in their reading materials. Solving the word problems may require use of information found in the following kinds of formats:

- recipes
- instructions
- games
- maps
- charts
- graphs
- schedules
- calendars
- illustrations

- sport articles
- science articles
- news stories
- biographies
- emails
- social studies articles
- letters
- interviews
- narratives.

What is in the student book?

Each student book contains:
- 12 strategy lessons (8 strategy lessons in Book 1)
  Each lesson provides instruction and practice in a specific mathematics area. Students use information found in the context of a theme-based reading passage and/or graphic to answer questions that focus on the target mathematics strategy.
- 4 review lessons
  A review lesson follows every three strategy lessons. (Every two strategy lessons in Book 1.) Students use information found in the context of two reading passages and/or graphics to answer 12 selected-response questions that focus on the target mathematics strategies in the three previous lessons.
- 1 final review.
  The final review gives practice in the mathematics areas presented in the strategy lessons. Students use information from reading passages and/or graphics to answer questions that focus on the target mathematics strategies presented in the book.

What is in the teacher guide?

Each teacher guide contains
- suggestions and instructional guidelines for using the ***STAMS*** series in the classroom
- a section entitled Know your strategies.
- a blank answer form for students to record their answers
- a completed answer form for correction of student forms.

Where do students record their answers?

Students can record their answers on the answer form in the teacher guide. Students may also record their answers directly in the student book.

What is the correction procedure?

For best results, correct each strategy lesson orally with students immediately following its completion. Explain concepts that students do not seem to understand. Encourage students to participate in a discussion about the targeted strategy and how to apply it.

When should I begin using the *STAMS Series* in the classroom?

STAMS should be initiated after an assessment of mathematics has been administered to students and analysed by a teacher. ***CAMS*** provides the diagnostic portion of the mathematics system, and is designed specifically for making such a strategy-based assessment. Students may be assigned specific strategy

KNOW YOUR STRATEGIES

Number

Number sense

You use **number sense** when you think about the place value of each digit in a number.

- Each digit in a number has a place value, such as ones, tens, hundreds or thousands. The value of a digit depends on its place in the number.

- A comma separates groups of three digits in large numbers. Look at the placement of any commas when trying to determine the value of digits in large numbers.

- In a number with a decimal, a digit that is one place to the right of the decimal is in the tenths place. A digit that is two places to the right of the decimal is in the hundredths place. The value of a number in the tenths place is greater than the value of a number in the hundredths place.

- A number may be written in digits or in words.

Estimation

You use **estimation** to find a number that is close to another number. You also use estimation to check if a sum or product is reasonable.

- Numbers can be rounded to the nearest hundredth, tenth, ten, hundred, thousand, ten thousand and so forth.

- To round a mixed number, find its nearest whole number or its nearest ten.

Addition

You use **addition** to find the sum of two or more addends.

- Put addends in any order and get the same sum.

- When writing addends, line up the place values. When addends are decimals, line up decimal points. When addends include both decimals and whole numbers, add a decimal point and zeroes to each whole number.

- When adding decimals that do not have matching place values, put one or more zeroes to the right of the decimal point to line up place values correctly.

- Add columns of addends from right to left. Regroup, if necessary. If the sum is a decimal, place the decimal point to the left of the tenths place.