Comprehensive Assessment of Mathematics Strategies
# CAMS® and STAMS® Program
## Grade-Level Foundational Concepts and Skills

### Book C (Grade 3)
- Place Value
- Add and Subtract
- Multiplication Concepts
- Fact Strategies
- More Fact Strategies
- Division Concepts
- Fact Families
- Fraction Concepts
- Model Equivalent Fractions
- Benchmark Fractions
- Compare Fractions
- Fractions Greater Than 1
- Plane Figures
- Length
- Perimeter
- Pictographs and Bar Graphs

### Book D (Grade 4)
- Multiplication Properties
- Multiply Mentally
- Multiply by 1-Digit Numbers
- Multiply by 2-Digit Numbers
- Relate Division to Multiplication
- Divide Without Regrouping
- Divide with Regrouping
- Equivalent Fractions
- Simplify Fractions
- Decimal Place Value
- Compare and Order Decimals
- Relate Decimals to Fractions
- Angles
- Understand Area
- Area of Rectangles
- Line Plots

### Book E (Grade 5)
- Multiply 3-Digit Numbers
- Divide Mentally
- Estimate Quotients
- 1-Digit Divisors
- Zeros in the Quotient
- 2-Digit Divisors
- Understand Mixed Numbers
- Add and Subtract Like Fractions
- Compare Unlike Fractions
- Add and Subtract Unlike Fractions
- Add and Subtract Mixed Numbers
- Add and Subtract Decimals
- Area
- Surface Area
- Understand Volume
- Line Graphs

### Book F (Grade 6)
- Multiply Whole Numbers by Fractions
- Multiply Fractions
- Divide Whole Numbers by Fractions
- Divide Fractions by Fractions
- Multiply and Divide by Powers of Ten
- Multiply Decimals
- Divide Decimals by Whole Numbers
- Divide by Decimals
- Understand Ratios
- Understand Percent
- Unit Rates
- Ratios in Tables of Data
- Solve Equations Using Number Sense
- Solve Equations Using Inverse Operations
- Use Formulas
- Volume

### Book G (Grade 7)
- Understand Integers
- Add and Subtract Integers
- Multiply and Divide Integers
- Evaluate Expressions
- Solve Linear Equations
- Equations with Rational Numbers
- Proportional Relationships
- Solve Proportions
- Rate Problems
- Percent as a Ratio
- Percent Problems
- Similarity
- Circles
- Cylinders
- Circle Graphs
- Theoretical Probability

### Book H (Grade 8)
- Exponents
- Square Roots
- Solve Two-Step Equations
- Two-Step Equations with Rational Numbers
- Linear and Nonlinear Equations
- Slope
- Graph Linear Equations
- Solve Systems Graphically
- Solve Systems Algebraically
- Special Pairs of Angles
- Angle Sums
- Triangle Similarity
- Pythagorean Theorem
- Distance Formula
- Mean, Median, Range
- Scatter Plots

*Additional lessons and tests (Books C–G) included to address Common Core Standards. See Table of Contents.*

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The CAMS® and STAMS® Program is a powerful integrated program of assessment and data-driven instruction. The program focuses on the critical math concepts and skills that students need to advance to the next grade level. The CAMS Series and STAMS Series work together effectively to ensure that your students gain a solid understanding of the key math concepts and skills. This knowledge will ultimately help them become independent problem solvers and succeed on high-stakes state tests.

Books C–H (Grades 3–8)

Assessment

Use the CAMS Assessment Series to gather information for targeting instruction and measuring progress on 16 concepts and skills necessary for success at grade level.

Instruction

Use the STAMS Instruction Series, with Interactive Whiteboard Lessons, for in-depth teaching of the 16 concepts and skills that will help students succeed.
Assessment with the CAMS® Series

Measure both your students’ progress in and their mastery of 16 foundational math topics, which cover both concepts and skills. Aligned to the NCTM Focal Points and Connections as well as to Common Core State Standards, these topics are key to grade-level success in math. The CAMS® Assessment Series is designed specifically to provide data for targeted instruction with the STAMS® Instruction Series but can also be used as a stand-alone assessment of students’ grade-level progress.

Student Book

- A Pretest diagnoses students’ strengths and weaknesses, and guides their placement in the STAMS Series. Pretest results can be compared with Post Test results to measure progress at year end.
- Four Benchmarks each test the same 16 topics as the Pretest, so individual and class progress can be monitored throughout the year.
- A Post Test assesses students’ mastery of topics following instruction with the STAMS Series or at year end.
- Self-assessment forms prompt students to reflect on their learning and set goals.

Teacher Guide

- Answer keys make scoring fast and easy.
- Reproducible recording forms for each test facilitate data collection and interpretation. Class profiles, as well as individual strengths and weaknesses, are easy to identify.

Instruction with the STAMS® Series

Provide students with explicit instruction of the 16 math topics, which cover both concepts and skills, identified as the most important instructional goals for the grade.

- Highly scaffolded lessons in the student book support struggling students as they become more independent and confident learners.
- Full step-by-step support in the teacher guide helps teachers easily differentiate instruction and effectively present each lesson.
- Optional Interactive Whiteboard Lessons enhance instruction by bringing lessons to life.
Each CAMS® student book includes a Pretest, a Post Test, four Benchmark tests, and three self-assessment forms. The Pretest and Post Test, which both include five items for each of the 16 STAMS® lessons, are designed to assess mastery.

The Benchmarks are designed to be given at regular intervals during STAMS instruction. With one item for each lesson, they provide an ongoing measure of overall progress for individual students and the class as a whole.

The chart below describes common scenarios for when to administer the Pretest and how to use the results.

<table>
<thead>
<tr>
<th>Use</th>
<th>Purpose of Pretest</th>
<th>Timing for Pretest</th>
<th>Using Pretest Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>During the School Year for On-level Students</strong></td>
<td>To determine which grade-level topics students have mastered and which topics need remediation.</td>
<td>Give the Pretest in late fall, about 3 months into the school year.</td>
<td>Use the results to create an instructional plan for the class or small groups based on areas in which students showed weaknesses. (See STAMS teacher guide.)</td>
</tr>
<tr>
<td></td>
<td>To assess students’ mastery of a topic you have taught with your core program.</td>
<td>Following instruction on a specific topic with your core program, give the page or pages from the Pretest that address that topic. (See page 8.)</td>
<td>Immediately begin STAMS instruction in that topic for those students who need it.</td>
</tr>
<tr>
<td><strong>During the School Year for Below-level Students</strong></td>
<td>To identify gaps in each student’s understanding of below-grade-level topics.</td>
<td>Administer the appropriate level of the CAMS® Pretest as early in the school year as possible. Use standardized test scores to identify the grade level at which the student should be tested.</td>
<td>Immediately begin remediation with the corresponding STAMS lessons at that level.</td>
</tr>
<tr>
<td><strong>During Summer School for Below-level Students</strong></td>
<td>To identify the grade-level topics that students have not mastered.</td>
<td>Give the entire Pretest at the start of summer school.</td>
<td>Provide instruction with STAMS lessons for the topics students still need to learn.</td>
</tr>
</tbody>
</table>

**Connecting to the Common Core State Standards**

If your state has adopted or plans to adopt the Common Core State Standards (CCSS), you may wish to test and provide instruction on these topics. Use the CCSS correlation chart on page 14, which correlates the test items in CAMS Book H with the CCSS for grade 8 mathematics, and the CCSS correlation chart on page 33 of the STAMS Book H teacher guide, which correlates the lessons with the CCSS for grade 8 mathematics. Consider the following options for Books C–G:

Option 1: After completing the entire CAMS and STAMS Program, as suggested in the Pacing Chart on page 7, introduce the CCSS topics as a group. Teach the Additional Lessons in the STAMS Series; then assess mastery with the Additional Lessons Test in the CAMS Series.

Option 2: Integrate the Additional Lessons and Test with the 16 foundational topics in the CAMS and STAMS student books. Administer the Additional Lessons Test at the same time as the Post Test.
1 Diagnose with CAMS® Pretest

Use the CAMS Pretest to place students in the STAMS Series. Pretest questions correspond to each of the 16 topics in the STAMS lessons, so results clearly identify exactly which topics your students need to study. 
(See details on pages 8–9.)

2 Instruct with STAMS® Lessons

Use the results of the CAMS Pretest to assign specific lessons in the STAMS Series to remediate or reinforce. 
(See the STAMS teacher guide for more details about instruction.)

3 Monitor Progress with CAMS® Benchmarks

Use the four CAMS Benchmarks, each with one question per topic, to monitor students’ progress at convenient points during the year. Refer to the Pacing Chart on this page for suggested intervals. 
(See details on pages 10–11.)

4 Assess Mastery with CAMS® Post Test

Use the CAMS Post Test to assess mastery of each of the 16 foundational topics taught in the STAMS Series. 
(See details on pages 12 and 13.)

TIP: If you choose to present the Additional Lessons in STAMS Books C–G that address topics related to specific Common Core State Standards, use the Additional Lessons Test to assess mastery following instruction in those lessons. 
(See details on page 14.)

Suggested Pacing Chart for Book H of the CAMS® and STAMS® Program

<table>
<thead>
<tr>
<th>Day(s)</th>
<th>Lesson</th>
<th>Assessment and Instruction</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–5</td>
<td>CAMS Pretest</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>6–10</td>
<td>1 Exponents</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>11–15</td>
<td>2 Square Roots</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>16–20</td>
<td>3 Solve Two-Step Equations</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>21–25</td>
<td>4 Two-Step Equations with Rational Numbers</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>CAMS Benchmark 1</td>
<td>30–45</td>
<td></td>
</tr>
<tr>
<td>27–31</td>
<td>5 Linear and Nonlinear Equations</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>32–36</td>
<td>6 Slope</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>37–41</td>
<td>7 Graph Linear Equations</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>42–46</td>
<td>8 Solve Systems Graphically</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>CAMS Benchmark 2</td>
<td>30–45</td>
<td></td>
</tr>
<tr>
<td>48–52</td>
<td>9 Solve Systems Algebraically</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>53–57</td>
<td>10 Special Pairs of Angles</td>
<td>30–45/day</td>
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<tr>
<td>58–62</td>
<td>11 Angle Sums</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>63–67</td>
<td>12 Triangle Similarity</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>CAMS Benchmark 3</td>
<td>30–45</td>
<td></td>
</tr>
<tr>
<td>69–73</td>
<td>13 Pythagorean Theorem</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>74–78</td>
<td>14 Distance Formula</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>79–83</td>
<td>15 Mean, Median, Range</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>84–88</td>
<td>16 Scatter Plots</td>
<td>30–45/day</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>CAMS Benchmark 4</td>
<td>30–45</td>
<td></td>
</tr>
<tr>
<td>90–94</td>
<td>CAMS Post Test</td>
<td>30–45/day</td>
<td></td>
</tr>
</tbody>
</table>

Note: Allocate 19 weeks for full implementation of the CAMS and STAMS program, with each lesson spanning 5 school days.
The CAMS® Pretest consists of 16 pages of test items, with one page of five problems for each STAMS® lesson. Each page is labeled with the lesson name and number, so when Pretest results identify an area of weakness, it is easy to know exactly which lesson should be used to remediate.

### When to Give the Pretest

**On-level students**
- The Pretest includes grade-level topics that will be largely unfamiliar to your students at the start of the school year. So, wait at least three months into the school year before administering the Pretest.

**Below-level students**
- For students functioning below grade level, administer the CAMS Pretest from the previous level early in the school year. Immediately begin remediation with the matching STAMS lessons at that level to help the student catch up quickly.

### How to Administer the Pretest
- Allow 30 to 45 minutes a day over a five-day period to administer the Pretest. Each page should take about 10 to 15 minutes, so students should complete 3 pages per day.
- Provide students with sharpened pencils, an inch ruler (Books C–E only), erasers, and scratch paper.
- Have students detach the Pretest Answer Form from their student book and fill in the personal-information section.
- Direct students to the appropriate page of the Pretest. Have them fill in the answer circles on the Answer Form that correspond to the numbered problems on that page.

### How to Correct the Pretest and Record Results

Use the Pretest Answer Key (page 20) to correct each student’s test. Then use the following two recording forms to record the results.

**Individual Record Sheet**
- Make one copy of the Individual Record Sheet—Pretest/Post Test (page 16) for each student.
- Record the number of correct responses for each topic on the Individual Record Sheet. Then calculate and record the percent of correct responses.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Pretest Score</th>
<th>STAMS® In</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Exponents</td>
<td><em>4</em> / 5 = 80%</td>
<td>yes</td>
</tr>
<tr>
<td>2. Square Roots</td>
<td><em>2</em> / 5 = 40%</td>
<td><strong>yes</strong></td>
</tr>
<tr>
<td>3. Solve Two-Step Equations</td>
<td><em>2</em> / 5 = 40%</td>
<td><strong>yes</strong></td>
</tr>
<tr>
<td>4. Two-Step Equations with Rational Numbers</td>
<td><em>0</em> / 5 = 0%</td>
<td><strong>yes</strong></td>
</tr>
<tr>
<td>5. Linear and Nonlinear Equations</td>
<td><em>1</em> / 5 = 20%</td>
<td><strong>yes</strong></td>
</tr>
<tr>
<td>6. Slopes</td>
<td><em>2</em> / 5 = 40%</td>
<td><strong>yes</strong></td>
</tr>
</tbody>
</table>

### Using the Pretest

**TIP:** If you do give the Pretest at the beginning of the school year, expect low scores, because the concepts and skills have not yet been taught. Use the results only as a baseline from which to measure progress.
**Class Record Sheet**

- Make a copy of the Class Record Sheet—Pretest/Post Test (page 18).
- Write each student’s name on the Class Record Sheet.
- Record the number of correct responses for each topic next to each student’s name. Then calculate and record the total number of correct responses for all 16 topics.

**How to Use the Pretest Data**

**Individual Record Sheet**

Use the data on each student’s Individual Record Sheet to evaluate mastery of the topics.
- Circle yes or no in the corresponding box of the STAMS® Instruction column, using the following criteria.
  - For a score of 80% or more (4 or 5 correct) per topic, no instruction is suggested.
  - For a score of less than 80% (3 or fewer correct) per topic, remediation is recommended.

**Class Record Sheet**

Use the data on the Class Record Sheet to help plan instruction.
- Highlight each score of 3 or fewer correct responses.
- Scan down each column to see which students require remediation for that topic.
- Use this information to group students and create an instructional plan. Choose the corresponding STAMS lessons from the same grade level to remediate.
- If students are not succeeding with a lesson, review prerequisite skills taught in earlier lessons or in the previous grade level.

(See pages 10–13 in the STAMS teacher guide for more details about instruction.)

**How to Use the Performance Graph and Self-Assessment**

After finishing the Pretest, have students self-evaluate their performance.

**Individual Performance Graph**

The Individual Performance Graph (page 17) provides students with a visual display of their performance. It also encourages students to think about their strengths and weaknesses before they complete the Self-Assessment/Pretest in their student book.
- Make one copy of the Individual Performance Graph for each student.
- Model for students how to shade bars to show the number of correct responses.
- Have students complete the Self-Assessment/Pretest.
- Use this information as a basis for individual conferences. Make a plan to provide instruction in specific topics for each student.

### Individual Performance Graph—Pretest/Post Test ©Curriculum Associates, LLC

#### Student’s Name: ___________________________

**Directions:** Use the results of the Pretest or Post Test to make a bar graph. For each topic, shade the boxes to show the number of correct responses.

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</table>

**TIP:** If a student responds correctly to 3 items for a topic, you may want to conduct a brief interview to determine whether or not instruction for that topic is necessary.
- Ask the student to explain or show how he or she solved two different problems. Choose one problem that was answered correctly and one that was answered incorrectly.
- Use your judgment to assess the student’s level of understanding and decide whether or not STAMS instruction is needed.
The CAMS® student book includes four Benchmarks that provide a snapshot of the class’s progress while working with the CAMS® Series and STAMS® Series. Each Benchmark includes 16 items, one for each of the foundational topics. These tests are not meant to assess mastery of topics, but rather to give a quick measurement of the class’s growth overall.

When to Give the Benchmarks
The Benchmarks cover all STAMS lesson topics and can be given at different times during STAMS instruction. See the suggested intervals provided in the Pacing Chart on page 7. These intervals may be modified to meet your students’ needs or your school’s schedule.

How to Administer the Benchmarks
- Allow 30 to 45 minutes to administer each Benchmark.
- Provide students with sharpened pencils, an inch ruler (Books C–E only), erasers, and scratch paper.
- Have students detach the Benchmark Answer Form from their student book and fill in the personal information before the first Benchmark is given.
- Direct students to the appropriate Benchmark test page and make sure they know which answer circles to fill in on the Answer Form.

How to Correct the Benchmarks and Record the Results
Use the Benchmarks Answer Key (page 21) to correct each student’s test. Then record the results.

Class Record Sheet
- Make a copy of the Class Record Sheet—Benchmarks (page 19).
- Write each student’s name on the Class Record Sheet.
- Record the number of correct responses for each Benchmark next to each student’s name.
- Calculate the average number of correct responses for the class by dividing the total number of correct responses by the number of students. Record the result at the bottom of the corresponding column.
- Use the space at the bottom of the page for recording any notes or observations about student behavior or progress.

How to Use the Data
Class Record Sheet
- Use the Class Record Sheet—Benchmarks to see individual overall progress. Recognize that scores will be quite low on the earlier Benchmarks because many topics have not yet been taught.
- If you give the first Benchmark after instruction in four STAMS lessons, as shown on the Pacing Chart, you shouldn’t expect scores higher than about 7 or 8.
- For the second, third, and fourth Benchmarks, expect the highest scores to be around 10, 13, and 16, respectively.
- Compare the results of each Benchmark with the previous one to see individual student progress.
- If the class average of a Benchmark is lower than expected, you might want to take extra time to review topics with which the whole class struggled. Since these are foundational math topics, it’s important to fill gaps in understanding before moving on.
How to Use the Student Self-Assessment

After finishing each Benchmark, have students self-evaluate their performance.

- Have students turn to the Self-Assessment/Benchmarks form in their student book.
- Suggest that they briefly look back at each problem in the Benchmark test and think about how well they understood the problem.
- Have students locate the column in the Self-Assessment form that corresponds to the Benchmark they just took. Ask them to write 1, 2, or 3 next to each problem to describe their level of understanding. You may wish to discuss the meaning of the numbers with students:
  1. The student did not understand the problem at all.
  2. The student understood the problem a little and was able to begin to solve it.
  3. The student was able to solve the problem and could explain how to solve it.
- Be sure students understand that the first three Benchmarks include problems on some topics they have not yet been taught. Make it clear that they are not expected to understand all the problems until Benchmark 4.
- Use this information as a basis for individual conferences. Make a plan for each student to provide instruction in specific topics.
Using the Post Test

The Post Test structure directly matches the Pretest structure, with five problems for each STAMS® lesson. This uniformity makes it easy to see student progress with each topic and to know exactly which lessons need to be reviewed to address areas of weakness.

When to Give the Post Test
Administer the Post Test after completing instruction for all the STAMS lessons.

How to Administer the Post Test
- Allow 30 to 45 minutes a day over a five-day period to administer the Post Test. Students will complete 3 pages per day, and each page should take about 10 to 15 minutes.
- Provide students with sharpened pencils, an inch ruler (Books C–E only), erasers, and scratch paper.
- Have students detach the Post Test Answer Form from their student book and fill in the personal-information section.
- Direct students to the appropriate page of the Post Test and make sure they know which answer circles to fill in on the Answer Form.

TIP: Consider correcting the Post Test orally with the class after its completion.
- On the board, have students show how to solve each problem. Explain concepts that students may not fully understand. Discuss why an answer choice is correct and why the remaining answer choices are not correct.
- If possible, elicit from students their reasoning for choosing both correct and incorrect answers. Discussions like these provide review and practice for upcoming state tests.

How to Correct the Post Test and Record Results
Use the Post Test Answer Key (page 22) to correct each student’s test. Then use the following two recording forms to record the results.

Individual Record Sheet
- An individual student’s Post Test scores are recorded in the same chart that includes the Pretest scores. This provides a convenient one-page summary of the student’s performance.
- Record the number of correct responses for each topic on the Individual Record Sheet. Then calculate and record the percent of correct responses.

Class Record Sheet
- Make a copy of the Class Record Sheet—Pretest/Post Test (page 18).
- Write each student’s name on the Class Record Sheet.
- Record the number of correct responses for each topic next to each student’s name. Then calculate and record the total number of correct responses for all 16 topics.

<table>
<thead>
<tr>
<th>Student</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams P.</td>
<td>4 4 2 5 4 4 3 4 5</td>
</tr>
<tr>
<td>Ansard, M.</td>
<td>5 4 4 4 5 4 5 4 5</td>
</tr>
<tr>
<td>Chu D.</td>
<td>4 4 4 5 5 5 4 4 5</td>
</tr>
</tbody>
</table>
How to Use the Post Test Data

**Individual Record Sheet**

Use the data on each student’s Individual Record Sheet to compare Pretest and Post Test results and determine where progress has occurred.

- Also use the results of the Post Test to evaluate mastery of each topic. Identify the topics for which the student’s percent of correct responses is 80% or 100%.
- Make note of the topics with a score below 80%. The student could benefit from a review of these topics prior to state testing.

**Class Record Sheet**

Use the data on the Class Record Sheet to identify areas of weakness.

- Highlight each score of 3 or fewer correct responses.
- Scan down each column to identify those topics with which the class as a whole is still struggling. You may want to provide additional review of those topics for the whole class prior to state testing.

How to Use the Student Self-Assessment

After finishing the Post Test, have students self-evaluate their performance.

**Individual Performance Graph**

- Make a copy of the Individual Performance Graph (page 17) for each student.
- Have students locate the Individual Performance Graph that they completed for the Pretest. Explain that they are going to make a similar graph to show the results of the Post Test.
- Ask students to shade bars on the graph to show the number of correct responses for each topic in the Post Test.
- Have students turn to the Self-Assessment/Post Test in their student book and complete the form.
- After the Self-Assessment/Post Test has been completed, suggest that students compare it with the Self-Assessment/Pretest they filled in at the beginning of the program.
- Use this information as a basis for individual conferences. Discuss progress made during the year.

Using the Post Test

Comprehensive Assessment of Mathematics Strategies (CAMS) Book H TG • Curriculum Associates LLC • www.CurriculumAssociates.com • 800-225-0248
The concepts and skills in the CAMS® and STAMS® Program are based on the NCTM Focal Points and Connections. The Common Core State Standards Initiative has developed a set of standards that present some math concepts and skills at different grade levels than the NCTM Focal Points recommend. The CAMS and STAMS Program addresses that discrepancy in grade-level content and anticipated differences in schools’ timelines for implementing the Common Core State Standards. It bridges the gap with Additional Lessons and a corresponding test (Books C–G).

- The Additional Lessons Test has five items for each lesson, just like the Pretest and Post Test.
- Because the Additional Lessons address concepts and skills that have traditionally been taught at higher grades, students are not likely to have been exposed to the content. For this reason, the Additional Lessons Test is best used as a Post Test, after instruction has been completed.
- There is no space on the CAMS recording forms for the Additional Lessons Test scores. It is best to treat the test results informally until your school begins formal assessment of the Common Core State Standards.

The chart below correlates the test items in CAMS Book H with Common Core State Standards (CCSS) for grade 8 mathematics.

<table>
<thead>
<tr>
<th>CCSS Grade 8</th>
<th>Test Items</th>
<th>Pretest and Post Test</th>
<th>Benchmarks 1–4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Number System</td>
<td>8.NS.1</td>
<td>16–20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>8.NS.2</td>
<td>6–10</td>
<td>2</td>
</tr>
<tr>
<td>Expressions and Equations</td>
<td>8.EE.1</td>
<td>1–5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>8.EE.2</td>
<td>6–10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>8.EE.6</td>
<td>56–60</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>8.EE.7</td>
<td>11–25</td>
<td>3, 4, 5</td>
</tr>
<tr>
<td></td>
<td>8.EE.8</td>
<td>36–45</td>
<td>8, 9</td>
</tr>
<tr>
<td>Functions</td>
<td>8.F.3</td>
<td>21–25, 31–35</td>
<td>5, 7</td>
</tr>
<tr>
<td></td>
<td>8.F.4</td>
<td>21–35</td>
<td>5, 6, 7</td>
</tr>
<tr>
<td></td>
<td>8.F.5</td>
<td>21–25</td>
<td>5</td>
</tr>
<tr>
<td>Geometry</td>
<td>8.G.5</td>
<td>46–60</td>
<td>10, 11, 12</td>
</tr>
<tr>
<td></td>
<td>8.G.6</td>
<td>61–65</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8.G.7</td>
<td>61–65</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8.G.8</td>
<td>66–70</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>8.G.9</td>
<td>1–5</td>
<td>1</td>
</tr>
<tr>
<td>Statistics and Probability</td>
<td>8.SP.1</td>
<td>76–80</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>8.SP.2</td>
<td>76–80</td>
<td>16</td>
</tr>
<tr>
<td>Strategies and Features</td>
<td>Examples</td>
<td>Research Says</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Computational Fluency</strong></td>
<td><em>CAMS Student Book</em></td>
<td>“Efficient, accurate computational fluency is key to students’ success in higher-level mathematics necessary for the workplace.” — National Research Council, 2001</td>
<td></td>
</tr>
<tr>
<td>Computational fluency is having quick recall of number facts and knowledge and ability to apply multiple computational methods.</td>
<td>Problems in the Pretest, Benchmarks, and Post Test reinforce grade appropriate methods for computing.</td>
<td></td>
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</tr>
<tr>
<td><strong>Data-driven Instruction</strong></td>
<td><em>CAMS Student Book</em></td>
<td>“Districts and schools that are improving generally show a commitment to the use of student assessment data to diagnose weaknesses and guide improvement efforts. They provide data to teachers and principals in a timely manner, train teachers in how to use these data effectively and give the teachers time to analyze the data.” — U.S. Department of Education, 2010</td>
<td></td>
</tr>
<tr>
<td>Data-driven instruction involves instructional decisions that are based on the systematic collection of data that reflects students’ understanding.</td>
<td>• 1 Pretest • 4 Benchmarks • 1 Post Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formative Assessments</strong></td>
<td><em>CAMS Entire Series</em></td>
<td>“Teachers’ regular use of formative assessment improves their students’ learning, especially if teachers have additional guidance on using the assessment to design and to individualize instruction.” — NMAP, 2008</td>
<td></td>
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<tr>
<td>A formative assessment is an assessment tool to guide teacher’s instruction by setting an action plan based on a student’s performance.</td>
<td>• 1 Pretest • 4 Benchmarks • 1 Post Test</td>
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<tr>
<td><strong>Problem Solving</strong></td>
<td><em>CAMS Entire Series</em></td>
<td>“Problem solving is an integral part of all mathematics learning. In everyday life and in the workplace, being able to solve problems can lead to great advantages.” — NCTM, 2000</td>
<td></td>
</tr>
<tr>
<td>The problem solving process standard enables students to build new math knowledge through problem solving and to solve problems using various strategies.</td>
<td>• 1 Pretest • 4 Benchmarks • 1 Post Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Progress Monitoring</strong></td>
<td><em>CAMS Student Book</em></td>
<td>“Teachers’ regular use of formative assessments improves their students’ learning, especially if teachers have additional guidance on using the assessment results to design and to individualize instruction.” — NMAP, 2008</td>
<td></td>
</tr>
<tr>
<td>Progress monitoring is a strategy that involves frequent, in-classroom progress checks of student’s understanding and mastery of math concepts and skills.</td>
<td>• 1 Pretest • 4 Benchmarks • 1 Post Test</td>
<td></td>
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<tr>
<td><strong>Test-Taking Practice</strong></td>
<td><em>CAMS Student Book</em></td>
<td>“The more times one repeats an action (e.g., practice) or recalls the information, the more connections of new memories to old are made, and the more efficient the brain becomes in its ability to retrieve that memory or repeat that action. Eventually, just triggering the beginning of the sequence results in the remaining pieces falling into place.” — Willis, 2007</td>
<td></td>
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<tr>
<td>Selected-response test questions are consistently used on state and national standardized tests.</td>
<td>• 1 Pretest • 4 Benchmarks • 1 Post Test</td>
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<td></td>
<td><em>STAMS Student Book</em></td>
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<td></td>
<td>• Parts One through Part Four: Your Turn activity • Part Five: Independence Practice</td>
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<td><em>STAMS Student Book</em></td>
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<tr>
<td></td>
<td>• Part Five: Independent Practice</td>
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</tbody>
</table>

For a full report and bibliography, go to CurriculumAssociates.com/STAMS/research.