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## Using the CAMS® Plus and STAMS® Plus program

Each *CAMS® Plus* 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® Plus* lessons, are designed to assess mastery.

The benchmarks are designed to be given at regular intervals during *STAMS® Plus* 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.

| Use  | Purpose of pretest   | Timing for pretest  | Using pretest results   |
|--|--|---|---|
| <b>During the school year for on-level children</b>    | To determine which year-level topics children have mastered and which topics need remediation. | Give the pretest about 3 months into the school year.   | Use the results to create an instructional plan for the class or small groups based on areas in which children showed weaknesses. (See <i>STAMS® Plus</i> teacher guide.) |
|  | To assess children's mastery of a topic you have taught with your core program.                | Following instruction on a specific topic with your core program, give the page or pages from the pretest that address that topic. (See page 9.)  | Immediately begin <i>STAMS® Plus</i> instruction in that topic for those children who need it.  |
| <b>During the school year for below-level children</b> | To identify gaps in each child's understanding of below-year-level topics.                     | Administer the appropriate level of the <i>CAMS® Plus</i> pretest as early in the school year as possible. Use standardised test scores to identify the year level at which the child should be tested. | Immediately begin remediation with the corresponding <i>STAMS® Plus</i> lessons at that level.  |

## Implementing CAMS® Plus assessments and STAMS® Plus lessons

### Option 1: Data-driven instruction

#### 1 Diagnose with CAMS® Plus pretest

- Use the *CAMS® Plus* pretest to place children in the *STAMS® Plus Series*. Pretest questions correspond to each of the 16 topics in the *STAMS® Plus* lessons, so results clearly identify exactly which topics your children need to study. (See details on pages 9–10.)

#### 2 Instruct with STAMS® Plus lessons

- Use the results of the *CAMS® Plus* pretest to assign specific lessons in the *STAMS® Plus Series* to remediate areas that need improvement. (See the *STAMS® Plus* teacher guide for more details about instruction.)

#### 3 Monitor progress with CAMS® Plus benchmarks

- Use the four *CAMS® Plus* benchmarks, each with one question per topic, to monitor children's progress at four points during the year. (See details on pages 11–12.)

#### 4 Assess mastery with CAMS® Plus post test

- Use the *CAMS® Plus* post test to assess mastery of each of the 16 fundamental topics following instruction with *STAMS® Plus*. (See details on pages 13–14.)

### Option 2: Comprehensive instruction

#### Suggested pacing chart for Book D

| Day(s) | Lesson | Assessment and instruction        | Minutes   |
|--------|--------|-----------------------------------|-----------|
| 1–5    |        | <i>CAMS® Plus</i> pretest         | 30–45/day |
| 6–10   | 1      | Multiplication properties         | 30–45/day |
| 11–15  | 2      | Multiply mentally                 | 30–45/day |
| 16–20  | 3      | Multiply by 1-digit numbers       | 30–45/day |
| 21–25  | 4      | Multiply by 2-digit numbers       | 30–45/day |
| 26     |        | <i>CAMS® Plus</i> benchmark 1     | 30–45     |
| 27–31  | 5      | Relate division to multiplication | 30–45/day |
| 32–36  | 6      | Divide without regrouping         | 30–45/day |
| 37–41  | 7      | Divide with regrouping            | 30–45/day |
| 42–46  | 8      | Equivalent fractions              | 30–45/day |
| 47     |        | <i>CAMS® Plus</i> benchmark 2     | 30–45     |
| 48–52  | 9      | Simplify fractions                | 30–45/day |
| 53–57  | 10     | Decimal place value               | 30–45/day |
| 58–62  | 11     | Compare and order decimals        | 30–45/day |
| 63–67  | 12     | Relate decimals to fractions      | 30–45/day |
| 68     |        | <i>CAMS® Plus</i> benchmark 3     | 30–45     |
| 69–73  | 13     | Angles                            | 30–45/day |
| 74–78  | 14     | Understand area                   | 30–45/day |
| 79–83  | 15     | Area of rectangles                | 30–45/day |
| 84–88  | 16     | Dot plots                         | 30–45/day |
| 89     |        | <i>CAMS® Plus</i> benchmark 4     | 30–45     |
| 90–94  |        | <i>CAMS® Plus</i> post test       | 30–45/day |

**Note:** Allocate 19 weeks for full implementation of the *CAMS® Plus* and *STAMS® Plus* program, with each lesson spanning 5 school days.

# The Australian Curriculum

Each book in the *CAMS® Plus*, *STAMS® Plus* and *Solve® Series* covers a range of Australian Curriculum content descriptions spread across two year levels. This allows teachers to select lessons for remediation or extension based on each student's needs. The content descriptions addressed by the lessons in Book D are listed here. Please note that not all the content descriptions for years 4 and 5 are addressed by these 16 standard lessons and 3 additional lessons (presented in bold), as the focus of the *CAMS® Plus*, *STAMS® Plus* and *Solve® Series* is on fundamental maths skills and concepts. For more information on the Australian Curriculum go to: [www.australiancurriculum.edu.au/](http://www.australiancurriculum.edu.au/)

| Australian Curriculum Content Descriptions |  | Relevant Lesson(s)  |   |
|--|--|---|---|
| YEAR 4                                     | ACMNA073   | Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems   | 2 4 6 7 <b>17</b>   |
|  | ACMNA075   | Recall multiplication facts up to 10 x 10 and related division facts  | 2 3 4 5 6 7 <b>17 18</b>  |
|  | ACMNA076   | Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder  | 1 2 3 4 5 6 7<br><b>17 18</b>   |
|  | ACMNA077   | Investigate equivalent fractions used in contexts   | 8 9 <b>19</b>   |
|  | ACMNA078   | Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line   | 8 9 <b>19</b>   |
|  | ACMNA079   | Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation   | 10 11 12  |
|  | ACMNA080   | Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies  | 10  |
|  | ACMNA081   | Explore and describe number patterns resulting from performing multiplication   | 2   |
|  | ACMNA082   | Solve word problems by using number sentences involving multiplication or division where there is no remainder  | 1 2 3 4 5 6 7   |
|  | ACMMG087   | Compare the areas of regular and irregular shapes by informal means   | 14 15   |
|  | ACMMG089   | Compare angles and classify them as equal to, greater than or less than a right angle   | 13  |
|  | ACMSP096   | Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values | 16  |
|  | YEAR 5   | ACMNA098  | Identify and describe factors and multiples of whole numbers and use them to solve problems |
| ACMNA099                                   |  | Use estimation and rounding to check the reasonableness of answers to calculation   | <b>17</b>   |
| ACMNA100                                   |  | Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies   | 3 4 15 <b>17</b>  |
| ACMNA101                                   |  | Solve problems involving division by a one digit number, including those that result in a remainder   | 5 6 7 <b>18</b>   |
| ACMNA103                                   |  | Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator  | <b>19</b>   |
| ACMNA105                                   |  | Compare, order and represent decimals   | 10 11 12  |
| ACMNA121                                   |  | Use equivalent number sentences involving multiplication and division to find unknown quantities  | 15  |
| ACMNA291                                   |  | Use efficient mental and written strategies and apply appropriate digital technologies to solve problems  | 1 2 5 6 7 8 9 <b>17 18 19</b>   |
| ACMMG109                                   |  | Calculate the perimeter and area of rectangles using familiar metric units  | 14 15   |
| ACMMG112                                   |  | Estimate, measure and compare angles using degrees. Construct angles using a protractor   | 13  |
| ACMSP119                                   | Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies | 16  |   |