

## Introduction to Math Pacing Calendar - SADLIER 2000-2001

The Pacing Calendar is organized in a sequence that maximizes the opportunity to teach concepts which will be tested on Stanford 9/ SABE/2. Units that are more heavily tested have been moved into a sequence that seems to fit in terms of prerequisite skills needed for that unit. In some cases lessons have been marked as optional, not because of their lesser importance, but to give you the options to skip if your group is more in need of basic skill development.

There are many resources in the Sadlier adoption to help you to tailor your lessons to individuals and groups. Some of these resources are:

### **Skills Update** (Before Chapter 1)

- Use designated pages as a review before specific units.
- Use whole unit as a review and assessment evaluation of your group at beginning of year.
- Use as a review prior to Stanford 9.

### **Pre/Post Tests:**

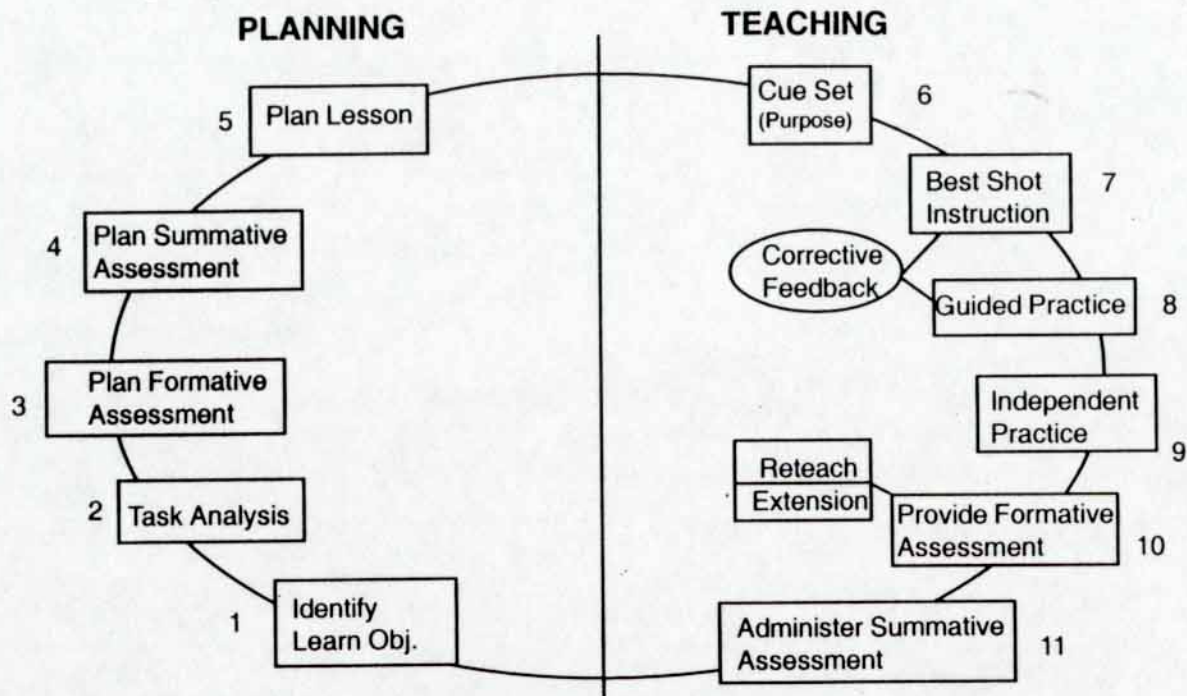
- **Use before you begin teaching a unit.** This is a **diagnostic test** to help you know who needs to learn new concepts in the upcoming unit and who may need extensions. Use the **Item Analysis** on facing page to identify which concepts in the unit individuals have already mastered and which skills will demand more in-depth teaching. **From this evaluation you can plan your unit to meet the needs of subgroups and individuals within your class.**  
For students lacking skill, teach the Basic Course; students with greater proficiency may only need the Challenge Course accompanied by extensions such as Problem of the Day, technology, etc. Not all students will need the same amount of instruction in every concept.
- As you begin each unit, plan lessons to provide each student adequate opportunity to learn and identify ways you will know if they have learned the desired concept for each lesson. The goal is that each child will master each concept before moving on to the next. Most students can learn if provided appropriate instruction and sufficient time. The reality is that some students are fast learners and others slower; some will grasp a concept on the first teaching while others will need more and varied instruction. Mastery is normally measured at 80% correct. The evaluation of mastery is usually done after many experiences with new knowledge. One way to think about the process of planning and teaching to achieve mastery is as follows:

## PLANNING

- **LEARNING OBJECTIVE** Identify specific learning for each lesson.
- **TASK ANALYSIS** Identify prerequisite skills needed by the student to understand this lesson and skills to be taught in this objective.
- **PLAN FORMATIVE ASSESSMENT** Design or select from Sadlier resources what assessment you will use during the teaching of an objective to monitor students' grasp of the new learning. This formative assessment can be observation, interview, walking around and checking guided practice work, etc.
- **PLAN SUMMATIVE ASSESSMENT** Design or select from Sadlier an assessment that evaluates key concepts taught in related objectives. This may be the PostTest, Chapter Test, Mastery Test, or the Chapter Test in the student assessment booklet.
- **PLAN LESSON** Design step-by-step teaching of the objective. (Think through how to teach this objective—what strategies, materials, questions.)

## TEACHING

- **CUE SET** Motivate students. Set purpose for the lesson.
- **BEST SHOT INSTRUCTION** Teach objective using strategies to engage and stimulate thinking. Provide for active participation. Monitor students' grasp of new learning and provide feedback and corrective instruction as needed.
- **GUIDED PRACTICE** Students work with new learning while you walk around and monitor understanding. Actively engage students. Monitor and diagnose who needs corrective instruction. Those demonstrating proficiency with the concept could extend their learning with more complex tasks e.g. Problem of the Day.
- **INDEPENDENT PRACTICE** When students demonstrate confidence with new learning, provide independent practice. The goal of independent practice is to hone skills and anchor the grasp of the new learning. This can be classroom-based and home-based practice.
- **FORMATIVE ASSESSMENT** This is a diagnostic and prescriptive step in teaching/learning. Formative assessment measures new learning in its fluid stages as students grasp for understanding. It can take whatever form provides 1) feedback to the teacher on how well each student has grasped the learning and 2) feedback to the student on his status of learning. Sadlier provides several options within each lesson and unit that can serve this purpose. Check assessment options. This measure will reveal who needs corrective reteaching and who is ready to do extensions. Students who cannot demonstrate understanding at 80% correct need reteaching before moving on. Use suggestions under Follow-Up in Teacher's Guide for Diagnostic Reteaching and Reinforcement. Since this formative assessment is checking the acquisition of knowledge, it should be used as feedback to you and the students and not used for report card scores.
- **SUMMATIVE ASSESSMENT** This assessment summarizes cumulative learning over a unit of related objectives. It is used to evaluate the degree of mastery after sufficient opportunity to learn. This assessment typically comes after several lessons on related objectives in a unit. Administering the Post-Test is recommended here as a comparative analysis with the Pre-Test to determine if instruction has helped students grasp the intended learning of the unit. Use the Item Analysis correlation to identify specific skills. The scores of this assessment can be used for assigning grades since it summarizes learning.



Trimester Assessments

The Trimester assessments are criterion-referenced tests that are summative tests given after several units of study. See the chart on the following page for which units will be tested on each assessment. Check the Pacing Calendar to see which concepts are tested on each Trimester Assessment.

Stanford 9/STAR.

The Pacing Calendar correlates concepts tested on Stanford9/STAR. This correlation is based on what we know now. The STAR test is designed to test the California state mathematical standards and evolves from year to year. Items marked are those currently identified by the state as those included on STAR.

Annual Goal

To instruct concepts in the Pacing Calendar. It is essential to instruct objectives for all lessons except those marked optional because lessons scheduled for after Stanford 9/SABE 2 testing dates contain content necessary for the following year of instruction.

Helpful Hints for Stanford 9/STAR Test Preparation:

- use chapter Cumulative Reviews
- use Skills Updates at beginning of text before appropriate chapters
- use Problem Solving pages at beginning of text
- Chapter 14 is tested on Stanford 9
- engage students in “Check Your Mastery” after each unit and discuss

| Trimester 1  | Trimester 2  | Trimester 3   |
|--|--|---|
| Skills Update<br>Problem Solving<br>Place Value,<br>Addition & Subtraction      Ch. 1<br>Multiplication                      Ch. 2<br>Division                                Ch. 3<br>Number Theory and Fractions    Ch. 4<br>Fractions:<br>Addition & Subtraction      Ch. 5 | Fractions:<br>Multiplication & Division    Ch. 6<br>Probability & Statistics        Ch. 7<br>Geometry                              Ch. 8<br>Moving On: Algebra                Ch. 14 | Measurement Topics                Ch. 9<br>Decimals:<br>Addition & Subtraction        Ch. 10<br>Decimals:<br>Multiplication & Division      Ch. 11<br>Metric Measurement,<br>Area and Volume                 Ch. 12<br>Ratio, Proportion, and Percent    Ch. 13 |

SKILLS UPDATE/PROBLEM SOLVING Instructional Time: Trimester 1

| Lesson                  | Title   | Pages |  |      |  | Standard | SAT9/STAR | T1 | T2 | T3 |  |
|-------------------------|---|-------|--|------|--|----------|-----------|----|----|----|--|
| 1                       | Place Value to Thousands                            | 1     | Use as sponge activity review before appropriate chapters, or do as a sequenced review prior to chapter one. Students can return to these Skills Update pages throughout the year for a quick review. See also practice items in Skills Update Practice Book. These practice items could serve as a review prior to testing. |      |  |          |           |    |    |    |  |
| 2                       | Compare and Order Whole Numbers                     | 2     |  |      |  |          |           |    | 1  |    |  |
| 3                       | Rounding Whole Numbers                              | 3     |  |      |  |          |           | 2  | 3  |    |  |
| 4                       | Add and Subtract Whole Numbers                      | 4     |  |      |  |          |           | 1  |    |    |  |
| 5                       | Multiplying 1 Digit                                 | 5     |  | 1-13 |  |          |           |    |    |    |  |
| 6                       | One-Digit Quotients                                 | 6     |  |      |  |          |           |    |    |    |  |
| 7                       | Two-Digit Quotients                                 | 7     |  |      |  |          |           |    |    |    |  |
| 8                       | Fractions   | 8     |  |      |  |          | 1         | 1  |    |    |  |
| 9                       | Equivalent Fractions                                | 9     |  |      |  |          | 1/1       | 2  |    |    |  |
| 10                      | Adding and Subtracting Fractions: Like Denominators | 10    |  |      |  |          | 2         |    |    |    |  |
|                         | Tenths and Hundredths                               | 11    |  |      |  |          |           |    |    |    |  |
|                         | Lines and Angles                                    | 12    |  |      |  |          |           |    |    |    |  |
|                         | Identifying Polygons                                | 13    |  |      |  |          | 1         |    |    |    |  |
|                         | Customary Units of Length                           | 14    |  |      |  |          | 1         | 2  |    |    |  |
|                         | Customary Units of Capacity and Weight              | 15    |  |      |  |          | 0/1       |    |    |    |  |
|                         | Metric Units of Length                              | 16    |  |      |  |          | 1         |    |    |    |  |
|                         | Metric Units of Capacity and Mass                   | 17    |  |      |  |          |           |    |    |    |  |
|                         | Making Pictographs                                  | 18    |  |      |  |          |           |    |    |    |  |
|                         | Making Bar Graphs                                   | 19    |  |      |  |          |           |    |    |    |  |
|                         | Equally/Not Equally Likely Outcomes                 | 20    |  |      |  |          |           |    |    |    |  |
|                         | Calculating Money                                   | 21    |  |      |  |          | 1         | 1  |    |    |  |
|                         | Intro to Problem Solving                            | 22-23 |  |      |  |          | 2         |    |    |    |  |
| <b>Problem Solving:</b> | Strategy: Logical Reasoning                         | 24    |  |      |  |          | 1         |    |    |    |  |
|                         | Strategy: Interpret the Remainder                   | 25    |  |      |  |          | 1         |    |    |    |  |
|                         | Strategy: Missing Information                       | 26    |  |      |  |          | 1         | 1  |    |    |  |
|                         | Strategy: More Than One Solution                    | 27    |  |      |  |          | 1         | 1  |    |    |  |
|                         | Applications  | 28    |  |      |  |          | 2         | 2  |    |    |  |

KEY: NS = Number Sense MR=Mathematical Reasoning AF=Algebra and Functions MG=Measurement and Geometry SDP = Statistics, Data and Probability  
 SAT9: Top Number=on SAT9; Bottom Number=STAR

Chapter One Chapter Title: PLACE VALUE, ADDITION, AND SUBTRACTION Instructional Time: Trimester 1

| Lesson | Title                                     | Pages | 16 Days                            | 17 Days                        | 15 Days          | Standard                               | SAT9/STAR | T1 | T2 | T3 |
|--------|---|-------|------------------------------------|--------------------------------|------------------|--|-----------|----|----|----|
|        |   |       | Basic Course                       | Average Course                 | Challenge Course |  |           |    |    |    |
| 1-1    | What Is a Billion?                        | 30-31 | All                                | All                            | All              | NS 1; 1.1; MR 2.3; 2.4; MR 3; 3.1; 3.3 |           |    |    |    |
| 1-2    | Place Value to Billions                   | 32-33 | 1-17 Odd; 24-26; 30-32; 37         | 7-23 Odd; 25-28; 30-37         | 7-23 Odd; 27-39  | NS 1.1                                 | 2         | 1  |    |    |
| 1-3    | Expanded Form                             | 34-35 | 1-19 Odd; 23-30                    | 1-11 Odd; 16-30                | All              | NS 1.1                                 | 1         | 1  |    |    |
| 1-4    | Thousandths                               | 36-37 | 1-27 Odd; 33-37 Odd; 43-46; 49-50  | 1-41 Odd; 43-47; 49-50         | 1-41 Odd; 43-50  | NS 1.1; 2.1                            |           |    |    |    |
| 1-5    | Decimals Greater Than One                 | 38-39 | 2-14 Even; 21-25; 30-33; 40-42; 45 | 2-18 Even; 23-27; 32-37; 40-46 | 2-38 Even; 40-52 | NS 1.1 MR 2.3                          |           |    |    |    |
| 1-6    | Compare and Order Numbers                 | 40-41 | 2-10 Even; 12-17; 18-22 Even       | 2-6 Even; 8-23                 | All              | NS 1.1                                 | 1         | 1  |    |    |
| 1-7    | Rounding Numbers                          | 42-43 | 2-26 Even; 31-35; 41               | 2-40 Even; 41-42               | 2-20 Even; 26-42 | NS 1.1                                 | 4         | 3  |    |    |
| 1-8    | Addition Properties/<br>Subtraction Rules | 44-45 | 1-6; 7-21 Odd; 23-24               | 1-6; 7-15 Odd; 16-25           | All              | NS 1.1 A&F 1<br>MR 2.3; 3.3            | 1         | 1  |    |    |
| 1-9    | Estimating Sums and Differences           | 46-47 | 1-10; 13-22                        | 1-24                           | All              | NS 1.2 MR 2.1; 2.4; 3.1                |           |    |    |    |
| 1-10   | Addition: Three or More Addends           | 48-49 | 2-24 Even; 27; 29-32               | 2-26 Even; 27-32               | 2-26 Even; 27-34 | NS 1.1 MR 1; 3.1; 3.2                  |           |    |    |    |
| 1-11   | Subtraction with Zeroes                   | 50-51 | 1-39 Odd; 45; 47                   | 1-41 Odd; 45-47                | 1-33 Odd; 35-47  | NS 1.1 MR 2.3; 2.4; 3.1                |           | 1  |    |    |
| 1-12   | Larger Sums and Differences               | 52-53 | 1-17 Odd; 21-22; 25-26; 29         | 1-19 Odd; 21-23; 25-27; 29     | 5-29             | NS 1; 1.1 MR 2.4; 3.1                  |           |    |    |    |
| 1-13   | Roman Numerals                            | 54-55 | 1-29 Odd; 43-47 Odd; 49            | 1-33 Odd; 45-49                | 1-41 Odd; 43-49  | MR 2.4                                 |           | 2  |    |    |
| 1-14   | Technology: Flowcharts                    | 56-57 | All                                | All                            | All              | none given                             |           |    |    |    |
| 1-15   | Problem Solving: <i>Guess and Test</i>    | 58-59 | All                                | All                            | All              | A&F 1.2 MR 1; 2.4; 2.6; 3.1            | 2/1       | 1  |    |    |
| 1-16   | Problem-Solving Applications              | 60-61 | 1-8; 12-14; 16-17; 19              | 1-10; 13-19                    | All              | A&F 1.1 MR 1; 1.1; 3.1                 | 1/1       | 1  |    |    |

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