Introduction

CLE Sunrise Math is built on the thesis that most students can learn, understand, and master mathematics concepts. It seeks to relate math to everyday life and to make it practical. We believe that mathematics should help students achieve the ultimate goal—loving, serving, and bringing glory to God.

CLE Sunrise Math introduces concepts in incremental steps. This allows the student to master each increment of a skill before advancing to the next step. Thus he does not face entire lessons or chapters on a single concept but meets several simple concepts simultaneously. Each increment easily becomes a part of his "big picture," not only because it is small but also because it fits with what he has already learned.

The only way a student will retain what he has learned is by consistent, systematic review. CLE Sunrise Math uses a system of continuous review. Instead of having a grand review at the end of the year, a large part of every day's work is review. The goal is mastery, not just exposure.

Course Materials

Items in italics are available from CLE.

For the Teacher:

→ Teacher's Guides for Math 600 (601-605 and 606-610)

For each student:

- → *LightUnits* 601-610
- → Answer Keys 601-605 and 606-610 (Classrooms may need only one set for the entire class.)
- → Elementary Math Reference Chart and Intermediate Math Reference Chart for each student or small group of students.
- → Rulers with millimeters, centimeters, meters, inches, feet, and yards
- → Protractor for each student (the smallest ones work best)
- → Compass for each student

How to Use the LightUnits

Math 60

The purpose of Math 601 is discussed on page 2 of the 601-605 teacher's guide.

Speed Drills. Sunrise Math 100-500 included regular speed drills for each day's lesson. In Math 600 only Math 601 includes speed drills.

Math 602-610

Themes—Each LightUnit from Math 602-610 builds on the theme of mathematics in history. Students will learn about famous mathematicians from the past in the introduction to every LightUnit and in story problems.

Lessons 1-17

New Concepts. New material in Math 602 through 610 is introduced at the beginning of each lesson, right under the lesson number and theme picture. Students with average reading ability for this level should be able to work through most new material on their own with only occasional help from the teacher. A large Teacher Check circle beside the new lesson indicates that the material is unusually challenging. You may need to formally teach that lesson

Refresher lessons. This symbol indicates that this concept was originally taught in Math 500. Either it is a spiral kind of concept that appears for a short time in several different levels and is then dropped, or it came too late in the previous level to be thoroughly mastered, and needs to be taught again.

We Remember. This section of each lesson contains continuous regular review of previously taught skills and concepts. It ensures mastery of these concepts. Students should need little help with this section.

Quiz 1, Quiz 2, and the LightUnit Test. Quizzes and tests cover only material that has been reviewed for five days or more. Quizzes and tests are cumulative. Quiz 1 is Lesson 5, Quiz 2 is Lesson 10, and the test is Lesson 16 in each LightUnit.

Fascinating Discoveries. Lessons 5, 10, and 17 contain this optional enrichment material. You may use this part of Lessons 5 and 10 after the quiz if time and interest permit. Lesson 17 is an extra enrichment lesson for the day after the test. These lessons will not be reviewed or tested at any time. You may skip them if your school year is shorter than 170 days.

Symbols Used in the LightUnits

Teacher Check. Used before guizzes and tests, and anywhere else the child must obtain the teacher's initials before proceeding.

△ **Teacher Aide Check.** Used with exercises that need to be checked by the teacher or teacher's aide. The child may continue working beyond this symbol even if the exercise has not yet been checked.

Optional Activity. The student should check with the teacher as to whether to do exercises marked with a star.

Refresher Lesson. This concept was taught in Math 500 and appears again in Math 600.

Story Problem.

We Remember – This daily review section continuously reviews skills and concepts learned in previous lessons.

?... Mental Math – Exercises in which the student works mentally and writes down only the answers.

+ - $\dot{}$ × Skill Builders – Mixed computation practice.

Mastery Drill – Contains information students are expected to memorize, know, and use.

Fascinating Discoveries – Optional activities, usually found in Lessons 5, 10, and 17.

Calculator may be used for this problem.

Grading a LightUnit

To obtain a final LightUnit grade, average the two quiz grades and any other optional grades. Add this average to the LightUnit Test grade and divide by two. This average will be the final grade for the LightUnit.

Example: Quiz 1 – 96% Ouiz 2 - 98%

Average - 97%

Test score – 93%

Average - 95%

LightUnit score is 95.

Scores Below 80. If a student scores 75-79% on a LightUnit Test, he may review the concepts he is weak in. Verify that he knows the material by quizzing him or giving a remedial assignment.

If a student scores 70-74%, have him restudy for the test and take the Alternate LightUnit Test located in Appendix C.

If a student scores 70% or below, have him do a thorough review of the LightUnit before taking the Alternate LightUnit Test or have him redo the entire LightUnit and then take the Alternate LightUnit Test. For both scenarios, if the student scores between 75-100% on the Alternate LightUnit Test, record the score for the LightUnit as 80%.

If all controls are followed but the student consistently fails to achieve 80%, consider underlying causes. What is the student's natural ability? Can he be expected to achieve 80% or above? These students may need to be evaluated by a trained person or to have one-on-one assistance.

Math Reference Charts

The Elementary and Intermediate Math Reference Charts are portable, durably laminated glossaries. They are filled with definitions, diagrams, equivalent measures, geometry, common abbreviations, etc. The elementary chart contains a full set of multiplication facts through the 9s. Students can work more independently when they can look up information as needed. The reference chart is a tool that will help them achieve this goal.

The Appendixes

Take time to become familiar with the appendixes in this Teacher's Guide.

Appendix A: Math 500 Skills Index tells you where in Math 500 each skill is introduced.

Appendix B: Math 600 Scope and Sequence gives an overview of the whole course. Many states require homeschoolers to submit a scope and sequence of the course they plan to study. You may copy this one for that purpose.

Appendix C: Alternate LightUnit Tests cover the same concepts as the regular LightUnit Tests, but with alternate exercises. They may be photocopied and used when a student needs to retake a test for any reason.

Appendix D: Math 600 Skills Index tells you where in Math 600 each skill is introduced.

Appendix E: Extra Practice Sheets provide reinforcement for concepts in LightUnit 601.

Appendix F: Math Reference Charts are reproduced here for the teacher's benefit.