



Frequently Asked Questions

Standards, Study Teams, Closure,
Universal Access, Lesson flexibility,
Pacing, Student Placement, Monitoring
Progress, Assessment

Algebra Connections, California Edition

Where are the California Algebra 1 Standards listed in the student and teacher texts?

The Algebra 1 California Mathematics Content Standards are listed in the back of the student text and in the “Standards Correlations” tab section of the teacher edition. The teacher edition has two sets of correlations: first, each standard is mapped to the lessons where it is taught (first table, pages 1-5); second, each standard is mapped to the problems in the book that introduce and practice it (California Department of Education Standards Map).

Each lesson in the student text begins with a short paragraph that explains the purpose of the lesson and often its connection to previous studies. The notes for each lesson in the teacher text begin with a statement of its mathematical objective. The requirement to include the California Mathematics Content Standards in grades K-8 textbooks does not mandate listing them for every lesson. A list is sufficient.

Where is there support for using student study teams? Chapter closure? Universal access? Literacy?

These topics are addressed in detail in the front of the teacher edition in their respective tabbed sections. In addition, there are specific suggestions for these topics in the teacher notes for most of the lessons. In particular, the “Lesson Overviews” and “Suggested Lesson Activities” address how to use the lessons flexibly, any difficulties that may be encountered, questions to ask students during the lesson, guidance with materials preparation, and a description of how the lesson should unfold. The “Closure” notes for each lesson describe how to conclude the day and how much time to allocate to do so. Some lessons include specific notes about using team roles for that lesson.

The lessons are structured to use “best practices” for teaching mathematics. Thus, many of the strategies often suggested for use with special student populations are already incorporated into the *Algebra Connections* lessons. The course uses manipulatives, models, visualization, and auditory cues on a regular basis. The Universal Access and Literacy section has specific suggestions for working with individual students should additional support be necessary.

How does the course offer flexibility within the daily lessons?

Each lesson has a clear mathematical objective, a structured problem or sequence of problems with an intended outcome, and closure. The lesson's suggested activity is not a script; rather, it is a description of the authors' intent and a set of suggestions. In several lessons, teachers have the option to have students take an open-ended approach, or follow the more structured "Further Guidance" section. Problems are written so they can be used with pairs, in teams of four, or as a whole class discussion. Math Notes boxes and the Extra Practice booklet (also available online) offers support for a direct instructional approach as an alternative for some students and teachers. Technology options are included when appropriate. There are multiple options for chapter closure. The Universal Access section (pp. 5 - 11) offers numerous suggestions and strategies for dealing with benchmark, strategic, special needs, and English Learners. Pages 15 and 16 offer strategies for help with reading.

What can teachers do to accelerate or decelerate the pace of the course?

The core problems and extensions for each day give flexibility based on the needs of the class. Teachers should emphasize the core problems for students and classes that need more time and omit the enrichment problems. Benchmark classes and accelerated learners should do the complete lessons daily. There are more than 20 specific lessons in the course that contain explicit extensions that offer added challenge for accelerated students.

Since content in this course is spiraled, the structure does not require the teacher to alter the pace of the chapter since students will revisit the content again in later lessons. One of the research-based tenets of this program is that teachers follow the pacing suggested in the teacher's text because the content will be revisited several times.

Pacing, complexity, and advanced learners are addressed in the Universal Access section, pages 12 and 13. The emphasis there is that acceleration should be depth, not speed. The richness of the problems and what accelerated students can do with them gives students a deep understanding of mathematics. We also suggest what to do if a teacher has an exceptional group that can complete the course in less than a year.

This course addresses the California Algebra Content Standards. With the advent of the Algebra Readiness course (2007 adoption), students taking this course should have met prerequisites (i.e., 7th grade standards). However, for students who have difficulties, we offer multiple resources: Extra Practice booklet, Parent Guide booklet, Math Notes box with explicit examples, Universal Access tab (pp. 6 and 7) and online homework help at Hotmath.com.

Where do the teacher notes discuss reasons why students may find particular problems more challenging and point to specific remedies?

Notes about mathematical misconceptions are embedded in the “Suggested Lesson Activity” notes. The notes also include extensive strategies and suggestions for problems that the authors expect will be challenging.

What resources help with the assessment of students’ initial knowledge, that is, whether they are properly placed?

There is a multiple choice assessment test based on the 7th grade California Mathematics Content standards immediately following the assessment tab in the Teacher Edition. Guidelines for how to use it are provided, as well as resources teachers can use to address weaknesses. Teachers may also assess student preparation for the course throughout Chapter 1. One of the goals of Chapter 1 is to assess students’ knowledge of pre-algebra (data analysis, signed-number problems, reading graphs and graphing on a coordinate plane, area and perimeter, fractions, decimals, & percents, ordering numbers, integer exponents, and solving a basic word problem).

How does the assessment program support monitoring student progress and using the information in the classroom?

The Assessment Handbook describes several forms of assessment and their purpose: participation quizzes, student presentations, portfolios, individual test ideas, and team tests. In the “Assessment Resources” section, there is a template for each chapter with suggestions for how and when to use them and what to do for each of the five formats. Teachers are provided sample individual and team tests for summative assessments, as well as a bank of problems from which to craft their own tests.

In the broadest sense, assessment takes place on a daily basis. Teachers use observations of daily work to make instructional decisions. When interacting with individual students and study teams, teachers can readily assess how well students understand the topics in the lesson, check on the understanding of previous topics, and review or re-teach topics tailored to the specific concerns of the student or study team. The Assessment Handbook discusses classroom observations on pages 15-17.