Getting Results with
Accelerated Math Live™
EASILY MANAGE DAILY MATH PRACTICE FOR ALL STUDENTS
Getting Results with Accelerated Math Live™
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Introduction

Congratulations! You have purchased one of the most effective tools for fostering growth in mathematics—Accelerated Math Live. As with all tools, the results that you and your students achieve with the software will depend on what you do with it. When used casually, Accelerated Math reinforces the learning of mathematics. When it is used thoughtfully and consistently, students get excited about math, math anxiety fades, and achievement accelerates.

Recent enhancements to the Accelerated Math program offer more options for teaching in an interactive, engaging classroom environment. For example, students now have the option to access and work math assignments online using computers, laptops, or tablets instead of printing out their assignments. In addition, new content built specifically for the Common Core State Standards will be available in time for the 2013–2014 school year. Please see the electronic supplement to this guide, titled *Using the Accelerated Math Live Online Student Program*, for more details on these and other exciting new features in Accelerated Math Live. Throughout this book, we will be referring to the supplement, so you may want to keep it handy during your implementation. You can download the supplement for free on the Renaissance Training Center at www.renlearn.com/training.

In this book, we describe some of the techniques that maximize the potential of Accelerated Math Live. First, we explain the underlying goals of Accelerated Math and the software’s basic functions. Then we describe two general frameworks for using Accelerated Math in different settings. After that, we explain how to plan for and get started with the program, as well as how to make adjustments once your implementation is underway. We also address how to set goals with students for their Accelerated Math work. We conclude by discussing some additional topics such as using Accelerated Math in an RTI framework, with primary students, or in a high school. The appendix includes step-by-step instructions for the most common software tasks, along with sample reports and helpful reproducible forms.

We hope that what you find here will inform and inspire you. Bear in mind, however, that this is only an introduction. To learn more about other professional development opportunities, visit our website at www.renlearn.com.
When you log in to your Accelerated Math Live software, look for a Renaissance Place ID logo on the bottom right. If you see one, you have the latest version of the software, which gives you access to all of the features described throughout this book. If not, contact Renaissance Learning to find out how you can get the most updated version.
Accelerated Math Live
Overview
The Purpose of Accelerated Math Live: Powerful Practice

Practice is essential to learning. Research has shown that practice builds the very neurological connections we need for deep understanding. Practice even alters the neurons in the brain so that we can perform skills automatically, without having to think about them. Moreover, when students practice—and practice effectively—teachers benefit from numerous opportunities to immediately check learning and address individual weaknesses. When instruction is followed by practice and practice is based on individual needs, learning accelerates.

In many math classrooms, however, students are unable to take full advantage of the power of practice. Teachers teach the same lesson to every student, and all students work the same problems. Days or weeks go by between the time students are taught a math concept and when their learning is tested. Teachers spend hours hand-scoring tests, after which they generally move on to new objectives. The result? Frustration, both for students who fall behind and for students who could move faster. And for teachers, who know they are not serving every student’s needs.

Accelerated Math Live is a software program designed to enable a different kind of practice. Specifically, it does the following things:

- Generates personalized assignments based on teacher input and student performance
- Scores student work automatically, thus giving teachers more time to plan and instruct
- Provides immediate results to both teachers and students
- Empowers students to take control of their learning through both independent learning and collaborative practice
- Provides a variety of instructional resources, including worked examples, instructional videos, and more

Consider the experience of one student, Emma, to see this in action. Emma works math problems every day, but they’re not just any problems. Rather, Accelerated Math generates problems specifically for Emma so that she receives the right amount of practice or review for each skill she is working on. Emma works the problems independently, occasionally using notes or neighbors as resources. When finished, she scores her assignment. The software immediately generates her TOPS Report (or assignment summary page, if working online) and her next practice assignment. The TOPS Report tells her how she did and lists any problems she missed.

Using the Online Student Program

You and your students have a new option for math practice. If enough computers, laptops, or tablets are available for each student to use a device, you can have them work in Accelerated Math online rather than printing out their assignments. See the supplement, Using the Accelerated Math Live Online Student Program, for more details.
Emma shares her TOPS Report with her teacher. The teacher sees that Emma missed a few problems related to the same math objective. She briefly checks Emma's work with her, asks a few questions, and clears up any misunderstandings. She tells Emma to go ahead and work on her next assignment, knowing that it will include more practice for the objective they just discussed. When later checking the Accelerated Math software to view a summary of class practice, the teacher confirms that a few students are struggling with the same objective as Emma. She plans to meet with the small group of students the next day to address their needs.

This process continues from day to day, leading Emma and her classmates to test on and master objectives that they successfully practice—which ultimately results in improved confidence and math ability. Emma remains in charge of her daily progress: she works problems, submits her responses for automatic scoring, reviews immediate feedback, discusses results with her teacher, and continues with new assignments. After initial instruction, the teacher supports Accelerated Math practice by providing time to practice, managing practice through the software, and planning additional instruction to meet individual needs. (We further explain the principles of effective practice that form the foundation of Accelerated Math on page 8. To learn more about best practices for using the online student program, see the electronic supplement.)

### How Accelerated Math Works

Accelerated Math involves a few basic steps:

1. You schedule time for math practice, either as part of your already established math period or in addition to it, and you implement classroom routines to support this practice.

2. Using whatever materials you wish, you teach a concept to the entire class, a small group, or an individual. (We’ll talk more about these choices later.) You assign related objectives to students through Accelerated Math software, and the software uses this information to generate personalized assignments.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Students</th>
<th>Accelerated Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedules practice time and establishes routines</td>
<td>Work problems using paper and pencil</td>
<td>Generates and scores assignments</td>
</tr>
<tr>
<td>Plans and teaches lessons</td>
<td>Send responses to the software</td>
<td>Provides immediate feedback to teacher and students</td>
</tr>
<tr>
<td>Assigns objectives</td>
<td>Receive immediate feedback and next assignments</td>
<td>Tracks results and reports on student progress</td>
</tr>
<tr>
<td>Monitors progress</td>
<td>Access resources and collaborate with peers</td>
<td>Recommends next steps based on a student’s performance</td>
</tr>
<tr>
<td>Meets with students and plans next steps</td>
<td>Meet with the teacher for additional help</td>
<td></td>
</tr>
</tbody>
</table>
3. You print students’ assignments from the software. Alternatively, students can access their assignments online.

4. Students work their practice problems on paper as necessary and then submit their answers using one of several scoring devices: an AccelScan scanner, Renaissance Responders, or NEO 2s. Students may also score their assignments online. Accelerated Math immediately checks the answers and generates a TOPS Report (or assignment summary, if working online) that shows the student’s score, any problems the student missed, and perhaps a student’s progress toward individualized goals. (See an example below.) The software also generates students’ next practice assignments, based in part on their performance.

5. During practice, students access resources and collaborate as needed, following routines you establish. They take time to understand and correct their answers before conferencing with you.

6. You meet with students regularly to analyze their results and go over any problems they missed. You can use the information from these conferences to plan next steps for instruction.

Core Objectives
Core objectives in Accelerated Math are identified on key reports—like the TOPS Report shown above—and in the software. They are the most critical mathematics objectives for students to learn at each grade level; proficiency with grade-level core objectives also helps students to progress in the grades that follow. Core objectives were identified in the Accelerated Math Libraries (see page 11) after consulting numerous sources, such as the NCTM Curriculum Focal Points, National Math Panel recommendations, state and Common Core standards, top international standards, Accelerated Math student achievement data, and information from recognized mathematicians.
Principles of Effective Practice

For math practice—and, indeed, any kind of practice—to be effective, it must follow certain principles. These are the principles upon which Accelerated Math is built.

Dedicate time to practice.
If you have ever tried to learn a new skill, you know you must spend time practicing it. It’s just common sense: you can take four hours of piano lessons a week, but if you only practice five minutes a day, you’ll never master Mozart. You have probably learned, too, that practice must be scheduled; whenever you try to fit it in around other tasks, it rarely happens. The same holds true for math. Students need a lot of math practice on a regular basis. That means making it a routine part of the school day.

Practice what you need to practice.
Suppose you signed up for piano lessons with a teacher whose twenty students displayed a wide range of abilities. Now imagine that your teacher gave everyone the same music to practice. Would all of you improve? Probably not. A beginner would not learn much if he constantly struggled to play complex melodies, nor would the accomplished player benefit from a steady diet of easy material. To avoid this situation, Accelerated Math allows you to specify the objectives with which individual students practice. If students master objectives quickly, they can move on. If they need additional practice, Accelerated Math provides it.

Practice until you know it.
What happens when you practice a skill halfheartedly? The time comes when you need to use that skill—at a piano recital, maybe!—and it isn’t there. The only way to ensure you’ve really learned something is to practice it until you can demonstrate mastery. That’s why Accelerated Math software keeps track of how a student is doing with every objective. When the student meets certain criteria while practicing an objective, the software concludes the student is proficient enough to be tested. If the student meets certain criteria on a test, the software then reports that the objective is mastered.

Instruction informs practice, and practice informs instruction.
The best kind of practice is linked to instruction: a teacher teaches you something, and then you practice it on your own. But the reverse is true, as well. The best kind of instruction is based, at least in part, on what happens during practice. A good piano teacher watches her students as they practice. So does a good football coach or a good math teacher. All of these instructors know that if a student is having trouble in practice, it’s time to review or reteach. To help you plan instruction, the Accelerated Math software summarizes the results of student work for you to view on reports.

Practice boosts confidence.
Practice means doing something repeatedly. That kind of exposure reduces fear and builds confidence. This is especially important for students who feel anxious about math. They fear it because they believe they can’t do it. That attitude follows them through life and keeps them out of careers for which math is essential. Accelerated Math breaks this pattern. It engages students in math without overwhelming them and, under the guidance of a thoughtful teacher, gives them enjoyable and successful experiences.

Review cements learning.
Use it or lose it, as the old adage says. Accelerated Math incorporates this principle by continuing to give students problems on objectives they have mastered. We call these “review” problems, and they appear automatically on practice assignments when at least two weeks have passed since the student mastered the objective. In fact, an objective is not “retired” until a student successfully reviews it.
How Accelerated Math Looks

Because Accelerated Math supports existing curricula and instructional practices, it can look quite different from district to district, school to school, or even classroom to classroom within a school. But some aspects of Accelerated Math remain the same in any setting: the activities that take place during practice are supported by classroom setup and routines, and practice is managed through the Assignment Book in the software.

The classroom. Here is an overhead view of how an Accelerated Math classroom might look. (Refer to the supplement for an example of a classroom using Accelerated Math online.)

The software **scores assignments** and gives **immediate feedback** to students and teachers. Students scan responses using an AccelScan scanner (shown), submit them wirelessly using a Renaissance Responder or NEO 2, or enter them online through the software.

Accelerated Math supports **differentiated practice** so students can get help where they need it the most.

Some students work in **small groups** while others **practice independently**. Because the software creates individualized assignments, students can work collaboratively and still be accountable for their own work.

**Routines** help students work efficiently and independently, maximizing practice time and giving the teacher more time to plan, instruct, and meet with students.
During the practice portion of this math class, students independently work personalized sets of problems, send responses to the software, retrieve TOPS Reports to find out how they did, and pick up next assignments. The teacher checks in with some students one-on-one to ask about their work or to provide additional instruction. At the same time, a small group works together to discuss and practice similar objectives. Students who finish their Accelerated Math work during the class period move on to related tasks like practicing math facts or completing homework.

Students know what to do at each point during the class period because their teacher establishes routines early and continues to reinforce them throughout the school year. The routines help students work efficiently and independently, making the most of their Accelerated Math practice time and giving the teacher more time to plan, instruct, and meet with students one-on-one or in small groups.

The software. There can be a lot going on in an Accelerated Math classroom. Even so, you can easily keep a handle on student practice through the Assignment Book (found under the Accelerated Math tab in Renaissance Place). From the Assignment Book, you can view information about current assignments, take action to keep students working, and see at a glance how each student is progressing. View an example of the Assignment Book below; we discuss its features in detail throughout this guide.

The Assignment Book is where you manage Accelerated Math practice and view student performance.
How Accelerated Math Knows about Practice

You and your students tell Accelerated Math about practice so it can send the right content to the right student, at the right time. You begin this process in the Assignment Book by choosing the content you want students to practice—first for a class overall and then for particular students. The software is then ready to send problems to students via assignments that can be printed or worked online. When students begin to score assignments, Accelerated Math tracks information about student performance and uses it—as well as your input—to generate next assignments.

**You choose the content.** Accelerated Math is based on content—lots of math problems. The problems are organized into libraries by grade level or subject, such as Grade 5 or Geometry. (See the sidebar for more information about the libraries available in Accelerated Math.) Within each library, closely related problems are grouped by objective, and objectives are ordered within topics to form a scope and sequence (see an example below). Accelerated Math objectives are aligned to state and Common Core standards and national guidelines, and cover a wide range of skills that focus on both conceptual and procedural knowledge. Nearly one-fifth of Accelerated Math objectives require students to work with word problems.

**Accelerated Math Libraries**

New Common Core content libraries will soon be available in Accelerated Math. (Read about this content in the supplement.) These libraries are divided into two general categories: K–8 and high school. Additional libraries—including calculus, financial literacy, and more—are available to help you advance learning. Each was developed with a coherent, focused scope and sequence, and each includes core objectives—the most critical math objectives for a student to learn at each grade level—as well as identification of prerequisite skills for those objectives, worked examples, and sample problems. In addition to consulting a variety of experts and resources during the development of these libraries, we studied the Common Core State Standards and created an empirically validated learning progression that ranges from kindergarten to high school.
You decide which objectives students will practice during the course of the school year by assigning an objective list to a class in the Assignment Book. You then choose which objectives from the list students should work with on their assignments. (We explain how to take these steps in later chapters.)

**The software sends content to students via assignments that can be printed or generated online.** The software draws upon four types of assignments to help address specific needs that arise during practice: practice assignments, exercises, regular tests, and diagnostic tests. In the Assignment Book, you will select whether students will receive their assignments in paper format or online. (See the appendix for common software tasks related to assignment format.)

Most teachers rely on two main assignment types for daily Accelerated Math work: practice assignments and regular tests. These assignments are the driving force behind a cycle of practice, test, and review. Students work on assigned objectives via practice assignments, and, when successful, prove mastery of them on regular tests. About two weeks after a student masters an objective, review problems for it begin to appear on the student’s practice assignments. In this way, students practice content until they understand it, test to show mastery, and then review to cement learning. As students master and review objectives, those objectives exit the cycle; new objectives continually enter the cycle as they are assigned in the software.

Accelerated Math’s advancement criteria determine when a student is ready to move from practicing to testing, from testing to mastery, and then out of review. The criteria help ensure that students receive the right amount of work for each objective at each stage. If a student struggles repeatedly with an objective during any one of the stages—practice, test, or review—the software signals with an intervene symbol and stops including the objective on assignments. This gives you a chance to meet with the student, provide reteaching, and generate another assignment that includes the
Let’s now take a closer look at each of the Accelerated Math assignment types. We’ll begin with the two types—practice assignments and regular tests—that are based, in part, on student performance:

- **Practice assignments** are intended for daily practice of objectives that students can work on independently, or with light guidance. They are individualized and can include a mix of objectives: new objectives, objectives that a student is still working on, and objectives up for review. When a student scores a practice assignment, the software automatically generates another one based on your input as well as the student’s performance. Practice assignments enable students to become ready to test on practice objectives (or demonstrate that they have retained understanding of review objectives).

- **Regular tests** are generated by the software with your direction. You decide when to generate regular tests and how many objectives to include. However, only objectives that a student has practiced successfully—by meeting certain criteria in the software—are eligible for inclusion. Regular tests enable students to master objectives.

The other two assignment types—exercises and diagnostic tests—are in your total control. You decide when to generate them and which objectives to include. If generating work for more than one student for the same objective, you also choose whether problems are identical or individual.

- **Exercises** are designed to provide additional practice on specific objectives to the whole class, a small group, or an individual student. They can be used to pace students, support reteaching, generate homework, and provide students with immediate instructional follow-up. Exercises enable students to become ready to test on objectives.

- **Diagnostic tests** can be used to gauge prior knowledge of objectives or quickly find skill gaps. Some teachers use them to provide a direct path to mastery—perhaps if a student has fallen behind, but understands an objective and needs a boost in confidence. Diagnostic tests enable students to master objectives.

**Accelerated Math Problems**

By default, Accelerated Math problems are presented in multiple-choice format. We call them assisted-response problems because having a choice of answers helps students know if they are on the right track. After students work a problem, they can see if their answer is among the choices. If it isn’t, they know they need to try a different strategy. The answer choices for assisted-response problems are not random, however. They include answers produced by making common mistakes. By looking at students’ incorrect answer choices, you can often identify their misconceptions. Assisted-response problems always appear on practice assignments, but the other assignment types can include problems presented in free-response format. Free-response problems, available only for printed assignments, do not offer answer choices and must be hand-scored using an answer key that the software provides.
## Accelerated Math Assignment Types

<table>
<thead>
<tr>
<th>Type of Assignment</th>
<th>What Is Included</th>
<th>Who Configures the Content</th>
<th>How It's Generated</th>
<th>Common Uses</th>
<th>Criteria for Success</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practice</strong></td>
<td>New objectives, objectives a student still needs to practice, and review objectives. Problems are assisted response.</td>
<td>The software determines the content based on the objectives assigned by the teacher and the student’s previous performance. By default, the software generates medium practice assignments, which take a typical student about 20 minutes to complete.*</td>
<td>Automatically generated by the software when the previous practice assignment is scored. Can also be generated by the teacher.</td>
<td>Daily practice</td>
<td>Correctly working 5 of the last 6 problems for an objective causes it to become ready to test. For review objectives, correctly working 3 of the last 4 problems for an objective causes it to become reviewed.</td>
</tr>
<tr>
<td><strong>Exercise</strong></td>
<td>Any objectives the teacher chooses. Problems can be assisted response or free response.</td>
<td>The teacher selects the objectives and the number and type of problems (identical or individual).</td>
<td>By the teacher Reteaching, pacing, homework, and additional practice on specific objectives</td>
<td></td>
<td>Correctly working 5 of the last 6 problems for an objective causes it to become ready to test.</td>
</tr>
<tr>
<td><strong>Regular Test</strong></td>
<td>Objectives that have been successfully practiced, i.e., that have become ready to test. Problems can be assisted response or free response.</td>
<td>The teacher determines how many of the eligible objectives to include on the test. The software includes five problems per objective.</td>
<td>By the teacher Testing mastery of objectives that students have successfully practiced</td>
<td></td>
<td>Correctly working 4 of the last 5 problems for an objective causes it to become mastered.</td>
</tr>
<tr>
<td><strong>Diagnostic Test</strong></td>
<td>Any objectives the teacher chooses. Problems can be assisted response or free response.</td>
<td>The teacher selects the objectives and the type of problems (identical or individual). The software includes five problems per objective.</td>
<td>By the teacher Identifying skill gaps, placing students in appropriate levels of work, and enabling students to directly master objectives</td>
<td></td>
<td>Correctly working 4 of the last 5 problems for an objective causes it to become mastered.</td>
</tr>
</tbody>
</table>

* Practice assignments can be small, medium, or large: small practices take typical students about 10 minutes to complete, medium practices take about 20 minutes, and large practices take about 30 minutes. You can change the default assignment size for a class using the Practice preference in the software; you can also select a size when manually generating practice assignments.
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The Purpose of Accelerated Math: Powerful Practice

Practice

Objective (4 of 4 listed)

49. Divide: \( \frac{1}{3} + \frac{12}{3} \)  
   [A] 4  
   [B] \( \frac{1}{36} \)  
   [C] \( \frac{1}{37} \)  
   [D] \( \frac{1}{4} \)

50. To raise money for charity, Duc and his friends rode 22.6 miles in a bike event. As a group, they had a total of $3,000 pledged for each mile they rode. How much money did Duc and his friends raise?  
   [A] $226  
   [B] $2,260,000  
   [C] $22,600  
   [D] $226,000

51. 1,000  
   [A] 490  
   [B] 4,900  
   [C] 4,900  
   [D] 49  
   \( \times \) 4.9

52. 100  
   [A] 2,700  
   [B] 2,700  
   [C] 27  
   [D] 270  
   \( \times \) 2.7

53. Use the number line to find \( \frac{2}{3} \).

[Image of a number line showing the numbers 0, 0.5, 1, 1.5, 2, with [A] 4 and [B] \( \frac{1}{9} \) marked.]

54. At work, Nico got a raise of $0.75 per trip. After 1,000 hours, how much money did he earn?  
   [A] $75.00  
   [B] $7.50

Test

Objective (4 of 4 listed)

83. Estimate the sum of two decimal numbers through thousandths and less than 1 by rounding to a specified place.
84. Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place.
85. WP: Estimate the sum or difference of two decimal numbers through thousandths using any method.
86. Multiply a decimal number through thousandths by 10, 100, or 1,000.

21. Estimate the difference by rounding each number to the nearest tenth: 6.56 - 0.23  
   [A] 0.2  
   [B] 0.5  
   [C] 0.3  
   [D] 0.4

22. \( 7.59 \times 1,000 \)  
   [A] 799  
   [B] 7,990  
   [C] 79.9  
   [D] 7990

23. Estimate the sum by rounding each number to the nearest tenth: 0.366 + 0.496  
   [A] 1.8  
   [B] 0.7  
   [C] 1.0  
   [D] 0.9

24. Ellie bought some pens at the school store for $0.59. After paying for the pens, she had $0.26 left. Which amount is a reasonable estimate of the money Ellie had to start with?  
   [A] $1.10  
   [B] $0.66  
   [C] $0.39  
   [D] $0.90

25. \( 2.422 \times 100 \)  
   [A] 242.2  
   [B] 2,422  
   [C] 24.32  
   [D] 2,432

26. Molly is buying fruit juice. She saves $0.69 by buying the juice at a sale price of $4.99. Which amount is a reasonable estimate of the regular price of the juice?  
   [A] $5.40  
   [B] $6.50  
   [C] $5.59  
   [D] $3.50

27. Estimate the sum by rounding each number to the nearest tenth: 0.49 + 0.86  
   [A] 1.2  
   [B] 1.5  
   [C] 1.4  
   [D] 1.3

28. Multiply: \( 386 \times 10 \)  
   [A] 3,860  
   [B] 396  
   [C] 3.860  
   [D] 39.6

29. Estimate the difference by rounding each number to the nearest tenth: 6.842 - 0.444  
   [A] 0.4  
   [B] 0.3  
   [C] 0.5  
   [D] 0.2
How Accelerated Math Communicates with You

When students start scoring assignments, Accelerated Math begins to tell you and your students about performance. We’ve seen how it does this on TOPS Reports (and we’ll see other reports in later chapters), but let’s now take a closer look at how Accelerated Math communicates in the Assignment Book. It does this primarily with symbols.

<table>
<thead>
<tr>
<th>Status</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigned</td>
<td>![Green]</td>
<td>The teacher has assigned this objective to the student.</td>
</tr>
<tr>
<td>Ready to Work</td>
<td>![Green]</td>
<td>The student has done some work on this objective but needs more.</td>
</tr>
<tr>
<td>Working</td>
<td>![Green]</td>
<td>The student has a practice assignment or exercise that includes this objective.</td>
</tr>
<tr>
<td>Ready to Test</td>
<td>![Yellow]</td>
<td>The student has done well with the objective and is ready to take a test on it.</td>
</tr>
<tr>
<td>Testing</td>
<td>![Yellow]</td>
<td>The teacher has generated a regular test that includes this objective.</td>
</tr>
<tr>
<td>Mastered</td>
<td>![Blue]</td>
<td>The student has done well with this objective on a test.</td>
</tr>
<tr>
<td>Intervene</td>
<td>![Red]</td>
<td>The student needs the teacher’s help.</td>
</tr>
<tr>
<td>Diagnosing</td>
<td>![Yellow]</td>
<td>The teacher has generated a diagnostic test that includes this objective.</td>
</tr>
<tr>
<td>Reviewed</td>
<td>![Gray]</td>
<td>The student has successfully worked review problems on this objective.</td>
</tr>
<tr>
<td>Hold</td>
<td>![Gray]</td>
<td>The teacher does not want the student to receive assignments on this objective.</td>
</tr>
</tbody>
</table>

Symbols indicate the status of objectives for individual students. Some symbols tell how a student is performing, or has performed, with objectives included on assignments: working, ready to test, testing, mastered, and reviewed. Other symbols indicate actions you have taken in the Assignment Book. For example, assigned appears when you assign an objective to a student—making it available to be included on practice assignments—and hold indicates you have prevented an objective from being included on assignments. Ready-to-work objectives, like assigned objectives, are eligible to be included on practice assignments; we’ll see how this symbol appears if a student has done some work on an objective, but needs more. Lastly, intervene appears if a student has been struggling with an objective while practicing, testing, or reviewing.

Viewing Symbols in the Assignment Book

To view symbols for all students at once, click Assign under Activities on the left. View symbols for an individual student by clicking the student’s name; or, check the box in front of the student’s name and click Assign under Activities on the left.
The Purpose of Accelerated Math: Powerful Practice

• The purpose of Accelerated Math is to enable powerful practice.
• You direct Accelerated Math practice through the Assignment Book in the software; thoughtful classroom setup and routines support student practice.
• Accelerated Math content is organized into libraries of math objectives by grade or subject, such as Grade 5 or Geometry. You tell the software which objectives your students need to practice.
• You choose from four assignment types—practice assignments, exercises, regular tests, and diagnostic tests—to help students advance through a cycle of practice, test, and review.
• Accelerated Math tells you and your students about performance via TOPS Reports that print when students score assignments; you can also monitor student practice in the Assignment Book and on other reports.
Finding the Right Fit

There are many ways to use Accelerated Math—in regular or remedial math classes, for summer school, or for after-school or alternative education programs. Every implementation involves some level of differentiated instruction and practice. The type and amount of differentiation are often influenced by factors such as district or school mandates, the math curriculum, and student needs. Some teachers primarily focus on grade- or subject-level material with the whole class, supplementing whole-group instruction with small-group or individual reteaching as necessary. Other teachers—who perhaps use Accelerated Math practice time in addition to a student’s regular math class—fully differentiate instruction and practice to target individual skill gaps.

If you are new to Accelerated Math, think about how much differentiation you will incorporate and when. We describe below, in general terms, what a couple of frameworks might look like as two teachers get started with Accelerated Math in different settings. As you read through the scenarios, think about which framework is closest to your purpose for using the software.

- Will you primarily keep students close together with whole-group instruction and practice, providing remediation or enrichment as necessary?
- Will you fully differentiate your practice and instruction, addressing each student’s needs at an individual level?

As you read the chapters that follow, you’ll find that some topics, such as how to plan for and get started with Accelerated Math, include information specific to each framework described here. Other topics, such as making adjustments and setting goals, relate to all frameworks for Accelerated Math and can be adapted for your specific implementation.

Whole-Group Instruction and Practice, with Differentiation

Felicia Gregg is a new sixth-grade teacher. She is just getting acquainted with the school’s general math curriculum, and it is also the first year the school is using Accelerated Math. Ms. Gregg plans to rely on the district’s math pacing guide to ensure she’s on track to address the Common Core State Standards for sixth grade. Having attended professional development sessions for Accelerated Math at the beginning of the school year, she feels ready to use the software and begin implementing best practices in her classroom.

Ms. Gregg prepares to use Accelerated Math by creating a new objective list that includes all of the objectives from the sixth-grade library. She assigns the objective list to each of her math classes and prints an Objective List Report. Ms. Gregg uses the report to compare the objectives in her Assignment Book with her pacing guide and curriculum. She notes on the report which objectives align with each chapter in her textbook. Ms. Gregg also takes time to arrange her classroom so students can easily retrieve math folders, work in small groups, score assignments, and hand in work.

Since Ms. Gregg and her students are new to Accelerated Math, she plans to launch her implementation with a practice run. During the practice run, students will work on a few
familiar objectives to review material from the last school year. This allows them to focus on learning new Accelerated Math routines—without worrying about new content—and experience initial success with the program. It also gives Ms. Gregg an opportunity to teach routines and become comfortable with the software. (A practice run is explained further at the beginning of Chapter 4.)

Ms. Gregg begins her practice run by assigning all students a familiar objective in the software and generating each student’s initial practice assignment. She then assigns a second objective to all students. (This ensures that Accelerated Math will automatically generate students’ next assignments.) Students complete their practice assignments, send responses to the software, and retrieve TOPS Reports along with their next assignments. Ms. Gregg tells students to put the new assignments in their math folders for the next day. (Alternatively, if students are working online, their next assignments will be available through Renaissance Place. Students can access them at any time.) She takes time at the end of the period to discuss what went well during Accelerated Math practice and what might be improved upon. In this way, Ms. Gregg keeps practice to a small scale and ensures a solid start during the first few days of her implementation. Ms. Gregg transitions out of the practice run when she feels her students are ready to tackle new material in their Accelerated Math practice.

Ms. Gregg shifts to a full implementation of Accelerated Math by assigning a new objective to all students after she teaches it. Just as in the practice run, students complete their practice assignments, send responses to the software, and pick up TOPS Reports along with next assignments. However, instead of holding on to their next assignments, they continue to work independently while Ms. Gregg checks in with students and meets with those who need extra support. Ms. Gregg sometimes generates exercises to provide additional practice on a specific objective or to support reteaching of an objective. If she plans to teach a difficult objective, she might generate exercises for the whole class to ensure all students have a chance to work a few problems for the objective immediately, and at the same time. She also generates regular tests for students when they are ready to test on a few objectives so they can demonstrate mastery of the material.

Going forward, Ms. Gregg monitors how many objectives students have eligible for practice so Accelerated Math can continue to automatically generate next practice assignments. She does this by checking the Assignment Book frequently. She also incorporates the Status of the Class Report into her daily planning routine so she can quickly see who needs objectives assigned or work generated. The report also helps her confirm who is struggling with objectives, and she makes plans to meet with individuals or small groups during the next class period to reteach objectives. She uses worked examples and sample problems from the

**Whole-Group Instruction and Practice, with Differentiation**

**Key assignment types:** Practice assignments for daily differentiated practice (of objectives assigned to the whole class as well as objectives assigned for individual enrichment or remediation); regular tests for students to master practiced objectives; and exercises to pace students, provide additional practice for specific objectives, and support reteaching.

**Benefit:** Supports a two-tiered program: providing whole-class practice at grade or subject level, with additional practice of targeted objectives at individual levels.

**Keep in mind:** Use diagnostic tests to place students within an objective list, find skill gaps, or help students move ahead by directly mastering objectives they already understand.
software to support her reteaching and gives students exercises to complete for more practice.

As the school year proceeds, Ms. Gregg essentially runs a two-tiered program: she has an instructional strand and a practice strand. Her routine is to teach a lesson to the whole class and then assign a related objective or objectives to all students. Some students become ready to test on the objectives quickly while others need more help and practice. To keep the fast-moving students engaged, she assigns them related but more difficult objectives and allows them to work together to learn the concepts. A few days a week, Ms. Gregg sets aside time to work with struggling students in a small group, and may generate exercises to provide additional practice. She continues to generate regular tests when students are ready to test on a few objectives.

At the end of the school year, Ms. Gregg takes time to consider what is working well with her Accelerated Math implementation and what she can improve for the next school year. She plans to continue differentiating instruction and practice, but intends to create Accelerated Math groups next year for students who need additional practice at a level below or above the rest of the class. (See Chapter 5 for more information about groups in Accelerated Math.) She has also noticed her students’ confidence soaring alongside their math abilities, and enjoys that they have taken ownership of their learning. To further motivate students and make their success tangible, she plans to set goals with students the next school year. (We discuss setting goals in Chapter 6.)

Fully Differentiated Instruction and Practice

Gabriel Lopez is a high school math teacher. Part of his workload involves teaching a class that provides additional help to students. Unlike Mr. Lopez’s regular math classes, his extra class allows for fully differentiated instruction and practice so he can target students’ individual skill gaps and help them move ahead quickly. Mr. Lopez uses Accelerated Math in his regular math classes, and also plans to use Accelerated Math to support the fully differentiated practice in his extra class.

Mr. Lopez has gained valuable experience with Accelerated Math in his regular math classes. He primarily relies on the routines and procedures he developed there, but adapts them for the extra class. For example, he builds in some additional resources for students—computers and worked examples—so he can spend his time meeting with students one-on-one or in small groups. He also has fewer students in the extra class, so he can check his Assignment Book frequently during the period and assign objectives or generate assignments as needed to keep students working.

Mr. Lopez prepares for his extra class by viewing a STAR Math Accelerated Math Library Report to consider where students should begin with math practice. The report’s recommended libraries help him confirm that his students’ math abilities vary widely. Mr. Lopez decides to create groups in his Assignment Book to help manage the wide range of objectives that his students need to practice. He assigns a grade-level objective list to each group. (See Chapter 5 for more information about groups in Accelerated Math.)

Because he doesn’t want to waste time teaching skills that students already know, Mr. Lopez generates diagnostic tests for students that include the beginning objectives from their assigned objective list, or a group of related objectives close to their skill level.
Finding the Right Fit

Some students master objectives on the diagnostic tests and thus skip the practice phase for those objectives. As soon as a student begins to stumble with objectives, Mr. Lopez shifts out of diagnostic testing mode, provides instruction, and generates an initial practice assignment for the student. The practice assignment includes the objectives not mastered via diagnostic testing.

Going forward, Mr. Lopez assigns objectives as he teaches them, making sure objectives are eligible for practice so the software can generate students’ next assignments. Students complete assignments independently, at times collaborating with peers. When finished, they score their work and either retrieve their TOPS Report or view their assignment summary online. If a student struggles with an objective, Mr. Lopez meets with the student one-on-one for reteaching and may generate an exercise to provide additional practice. Mr. Lopez shifts back to diagnostic testing mode if he feels a student is able to advance quickly through a new set of objectives on her assigned objective list.

Mr. Lopez generates regular tests for students when they are ready to test on one or two objectives during the week. This helps him reduce the scope of tests; it also ensures that students test on objectives soon after becoming ready to test on them. Mr. Lopez uses Fridays as catch-up days: he generates regular tests for any outstanding ready-to-test objectives, has students complete outstanding assignments, and meets with students for reteaching. Everyone can then start fresh on Monday with new objectives.

As the extra class progresses, Mr. Lopez continues with this sequence: diagnostic testing, teaching or reteaching individuals and small groups, practicing, and regular testing. There is a lot going on, but Mr. Lopez has taught his students how to work independently, get help from him and other resources, collaborate with peers, and take ownership of their progress.

Mastered Objectives = Math Growth

The more objectives a student masters, the more growth she will show on standardized and state tests. Our research shows that a minimum of four objectives per week (or two per week in the first and second grades) is the pace that students must maintain to make substantial progress. This translates to about 40 minutes of math practice a day. Whichever approach you use with Accelerated Math—one driven by group instruction and practice, such as the one Ms. Gregg adopted, or one that targets individual skill gaps, like Mr. Lopez used—be sure to keep students on target to master the recommended number of objectives, or the number that best suits your implementation.

<table>
<thead>
<tr>
<th>Fully Differentiated Instruction and Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key assignment types:</strong> Diagnostic tests for placement within an objective list, finding skill gaps, and quickly mastering known objectives; practice assignments for daily differentiated practice; regular tests for mastery of practiced objectives; and exercises to support reteaching.</td>
</tr>
<tr>
<td><strong>Benefit:</strong> Supports meeting the needs of each student at an individualized level for instruction and practice.</td>
</tr>
<tr>
<td><strong>Keep in mind:</strong> Accelerated Math is a powerful tool for supporting full differentiation. Mostly, teachers take advantage of this framework when teaching a class that is in addition to students’ regular math classes, has fewer students than a regular math class, and targets individual critical skill gaps to help students move ahead quickly. To learn more about how Accelerated Math can be used to support fully differentiated instruction and practice in an intervention setting see the Accelerated Math for Intervention page on our website at <a href="http://www.renlearn.com">www.renlearn.com</a>.</td>
</tr>
</tbody>
</table>
To do that, we urge you to monitor a couple of numbers for each student: the average score on practice assignments and the average score on regular tests. If students maintain individual averages of at least 75 percent on practice assignments and 85 percent on regular tests, they will move steadily through practicing and testing to mastery of math concepts. In Chapter 5, we introduce you to a report (called the Diagnostic Report) that will help you monitor this data. In Chapter 6, we provide additional information on setting goals for Accelerated Math practice.

Moving Forward

Keep in mind the following guidelines as you move ahead with your implementation:

- **Start slowly.** Take time to understand the basics when just starting out with Accelerated Math. This will help you later adjust your implementation to meet the specific needs of you and your students.

- **Be a motivator.** Your excitement about Accelerated Math will extend to your students! Be sure to get off to a solid start and keep the program engaging for students. We offer suggestions for launching implementations and motivating students in later chapters.

- **Build a community.** Connect with other teachers in your school or district who are using Accelerated Math. With the help of an administrator, establish a learning community around the program to discuss how its implementation is impacting students’ math growth. Share tips, success stories, and troubleshooting advice.

- **Make adjustments.** Your use of Accelerated Math may evolve from year to year—or even within a school year—as you learn more about the program from using it with students and talking with colleagues. As you gain experience, think about how you can adapt the basics outlined in this guide to best support your students.

**SUMMARY**

**FINDING THE RIGHT FIT**

- Accelerated Math can be used in a variety of settings and in different ways.

- Accelerated Math implementations are characterized by the type and amount of differentiation they incorporate.

- Some teachers focus on grade- or subject-level objectives with the whole class, and provide additional, targeted practice at individual levels. Other teachers choose to fully differentiate instruction and practice, especially if using Accelerated Math as part of program that is in addition to a regular math class.

- To make the most growth, students must master at least four math objectives per week (or two per week in the first and second grades) and maintain an average of at least 75 percent on practice assignments and 85 percent on regular tests.
Using Accelerated Math Live with Students
Planning and Beginning Tasks

Before students can work with Accelerated Math assignments, you’ll need to do some preliminary planning and perform a few tasks in the software. In this chapter, we explain how to prepare the software, become familiar with Accelerated Math content, set up your Assignment Book, and get ready for students to score assignments. We then move into classroom routines and setup, listing questions to consider along with some ideas that have worked well for other teachers. We conclude with a checklist that summarizes the key tasks covered in the chapter.

Prepare to Use the Software

As we mentioned earlier, you can choose to have the software print out students’ assignments, or students can access their personalized assignments online through Renaissance Place (if you have a one-to-one student-to-device ratio). Either way, you will want students to show their work in a math notebook or journal. Keep in mind that even if you are working with printed assignments, you will need at least one computer in your classroom to manage the program, along with a printer to print assignments. Some teachers prefer to use two computers in this case, especially if students will be scanning. (We discuss scoring options later in this chapter.)

Check that the Accelerated Math software has been set up for your classes by logging in to Renaissance Place and clicking Assignment Book under the Accelerated Math tab. (Ask your school or district technology administrator for login information.) In the Assignment Book, check that each of your classes has been entered, as well as students’ names. (If you have more than one class, use the Class drop-down list to switch between classes.) A technology administrator should also ensure that your computer meets the software requirements for using Accelerated Math and its related scoring software.

Become Familiar with Accelerated Math Libraries and Objectives

Think about which Accelerated Math library of objectives you would like to know more about. We suggest that you at least become familiar with the library at your grade or subject level. You might decide to look through others as well, such as the grades immediately above and below the one you are teaching. A couple of resources can help you with this process:

- The scope and sequence for a library (see an excerpt on page 11)
- A library guide (see an excerpt on the next page)

A scope and sequence provides an overview of a library by listing all of the objectives in the library grouped into topics. Library guides provide this information as well, but also include sample problems for each objective. The appendix includes instructions for locating both resources in the software.

Common Core content libraries are coming to Accelerated Math Live software in time for the 2013–2014 school year. See the supplement for more information about these new libraries.
Topic 1 - Number Sense and Operations

Obj. 1 - Determine if a number to 50 is prime or composite

2. Which number is a composite number? [A] 28 [B] 17 [C] 47

Obj. 2 - Determine a complete list of whole number factor pairs for a number to 50

3. Which list shows all the factor pairs of 8?
   [A] 1, 8
   4, 2
   [B] 1, 8
   2, 6
   [C] 1, 8
   2, 4
   [D] 1, 9
   2, 4

4. Which list shows all the factor pairs of 44?
   [A] 2, 22
   4, 11
   [B] 1, 44
   2, 22
   4, 11
   [C] 1, 44
   2, 23
   [D] 1, 44
   2, 23
   4, 11

Obj. 3 - Determine all the factors of a whole number to 50

5. Which list shows all the factors for 3? [A] 1 [B] 3 [C] 1, 2 [D] 1, 3
6. Which list shows all the factors for 38?
   [A] 1, 2, 18, 38
   [B] 1, 2, 19
   [C] 1, 2, 19, 38
   [D] 2, 19, 38

Obj. 4 - Determine the prime factorization of a number to 50

7. What is the prime factorization of 29?
   [A] 3 × 3 × 7
   [B] 3 × 3 × 3
   [C] 2 × 3 × 3
   [D] 29 is prime
8. What is the prime factorization of 37?
   [A] 3 × 3 × 7
   [B] 3 × 3 × 3 × 3 × 3
   [C] 3 × 7
   [D] 37 is prime
You can also view sample problems and worked examples when working with objective lists in the software. Simply click the View Example icon or View Worked Example icon after an objective’s name, as shown below. (Worked examples are also available to students and parents in Renaissance Home Connect; see Chapter 5 to learn more about the program.)

Set Up Your Assignment Book

When you first go to your Assignment Book, you will see classes and students, but not content. That’s because Accelerated Math doesn’t know which objectives your students should work with—that’s up to you. In Chapter 1, we briefly explained how assigning an objective list to a class tells Accelerated Math what your students need to practice during the course of a school year. We further describe this process here. In the next chapter, we look at how to choose particular objectives from the list to include on students’ assignments.
There are a few ways you can assign objective lists to classes. Many teachers who are new to Accelerated Math choose to create a new list and include all objectives from a grade- or subject-level library. (They may later decide to pare the list, or add objectives for remediation or enrichment, as the need arises.) Other teachers, who perhaps must use a list created by an administrator or department head, choose to assign an existing list. Finally, teachers who have a grade attached to their class in Renaissance Place will see an option for assigning a default list. We briefly explain each option below, beginning with the common choice of new users of Accelerated Math: *New objective list that I will create*. (The appendix includes common software tasks for working with objective lists; see the software manual for more detailed instructions.)

**New objective list that I will create.** Choose this option to create a new objective list while assigning it to a class. You are the owner of the objective list you create: you name it, choose permissions, and select objectives. You can edit the list if you want to reorder, add, or remove objectives in the future.

**An existing objective list.** Choose this option to assign an existing objective list to a class. You can choose to make a copy of the list, enabling you to edit it independently of the original list.

**Other considerations**
Here we provide a few suggestions for working with objective lists in certain settings.

**Default Objective List?**
If you have a grade attached to your class in Renaissance Place, you will see a third option for assigning an objective list in your Assignment Book: the default option (as shown above). Selecting this option automatically assigns the named Accelerated Math library list to the class, making it a simple one-click way to begin. However, please note that you will not be able to edit a list selected in this way: you cannot reorder, remove, or add objectives. It simply remains the default list, in the default order.
• **Beginning with fully differentiated practice.** Teachers who use Accelerated Math to support fully differentiated practice often begin by identifying an appropriate starting place for each student before assigning an objective list to their class. They consult multiple sources, including recommendations from other math teachers, class work, and information from STAR Math Enterprise or other standardized assessments. The STAR Math Accelerated Math Library Report (shown below) includes recommended Accelerated Math libraries for students based on their STAR Math test scores. (See the next page to learn more about STAR Math.)

![STAR Math Accelerated Math Library Report](link)
STAR Math Enterprise

STAR Math Enterprise is a valid and reliable computer-adaptive test that measures general math achievement of students in grades 1 through 12. (Students in kindergarten may also take the test, but they will not receive norm-referenced scores.) The test can be used for screening, progress monitoring (with the help of a sophisticated goal-setting wizard that makes calculations based on growth norms), and initially placing students in Accelerated Math. Students independently complete the test, and results are available immediately via informative reports designed for a variety of specific purposes. (If your school uses STAR Math Enterprise for universal screening, you can use the Screening Report to view students’ recommended Accelerated Math libraries alongside other data, such as scaled score and percentile rank, for a more complete picture of student performance.)

In addition, STAR Math Enterprise provides skills-based data for screening, progress monitoring, planning instruction, predicting state test proficiency, gauging mastery of state standards and Common Core State Standards, and measuring growth. STAR Math Enterprise also maps student scores to the Core Progress learning progression for math to help teachers determine instructional readiness, identify prerequisite skills, and access materials for the instruction and practice of skills. For more information about STAR Math Enterprise, see our website at www.renlearn.com.

If your students need to practice a wide range of objectives, consider using groups in your class Assignment Book. You can create a group for each objective list that you plan to use with students. Simply add students to groups as you like to give them assignments from the assigned objective list. For example, the STAR Math Accelerated Math Library Report on the previous page shows recommended Accelerated Math libraries ranging from Grade 3 to Grade 5 for Hassan Khan’s students. Because Mr. Khan is fully differentiating instruction and practice, he creates three groups at the beginning of the year and assigns a different grade-level objective list to each of them: Grade 3, Grade 4, and Grade 5. He initially places students in groups based on their recommended libraries; going forward, he adds students to other groups as they’re ready for the next grade-level set of objectives. He creates a new group when students need to work with another objective list. (See Chapter 5 to learn more about groups in Accelerated Math.)

- Working with multiple classes. Some teachers who have several math classes assign the same customized objective list to each of their classes. They use a two-step process. First, they create an objective list—either in the process of assigning it to a class (as described in this chapter) or separately (the appendix includes instructions for creating new lists)—and make adjustments like reordering, adding, or removing objectives. Then, they assign it to each class by going to the Assignment Book, choosing An existing objective list, and selecting the list they created. They might make a copy of the list when assigning it to each class in order to edit the lists independently.
Print the Objective List Report

Print an Objective List Report to view all of the objectives in an Assignment Book.

The Objective List Report helps you easily compare the objectives in your Assignment Book to your curriculum, state and Common Core standards, and pacing guide. Some teachers indicate on the report which objectives align with each of their textbook chapters or which objectives they plan to teach each marking period. If you are working with an objective list that you can edit, decide if you want to reorder, add, or remove objectives at this time. You may also choose to leave objectives in the existing order and assign them in whatever sequence fits your instruction. We recommend that if you are new to Accelerated Math, keep the objectives in their default order; print an Objective List Report, place it by your computer, and assign objectives in the software as needed by referring to this list. (The appendix includes instructions for reordering, adding, and removing objectives. If you decide to make changes, be sure to print a new copy of the Objective List Report.)

Prepare for Students to Score Assignments

Students can use one of several methods to score their assignments, including the AccelScan scanner, Renaissance Responders, and NEO 2s. Each of these hardware components comes with scoring software that requires some setup on your part. Alternatively, students can score their assignments online through the software. In the following pages, we give a brief overview of how to prepare for scoring with each of these methods.
**AccelScan scanner.** If your students will use scan cards and a scanner to score their assignments, you'll need to connect an AccelScan scanner to a computer. It's convenient, though not necessary, to have two computers in your classroom for this purpose: one on which you manage the Accelerated Math software and one for students to use when they scan their answers. That way, if you want to do something in the software, you won't have to interrupt students who are scanning. You also need to have the scanner software (called AccelScan) installed and open on the computer attached to the scanner in order for scanning to work.

Finally, make sure you have Accelerated Math scan cards to distribute to students. Students will use a separate card for each assignment type, but all scan cards look the same: students simply check a box (Practice, Test, etc.) on the scan card to indicate its use. Students will continue to reuse a scan card until it is filled or is close to being filled. They'll know to start a new scan card for an assignment type when they receive a new form number. (A form number, printed at the top of every assignment, identifies the assignment to the software and is filled in by students on the scan card.) See an example of a scan card on page 36.

**Renaissance Responder or NEO 2.** If your students will use Renaissance Responders or NEO 2s to wirelessly transmit answers to the Accelerated Math software, you'll need to install the Renaissance Responder scoring software on your computer, connect the Renaissance Receiver, and set the Renaissance Place address in the wireless server utility. The Renaissance Responder program must be open for students to score assignments; the Accelerated Math software can be closed.
**Scoring assignments online.** When you generate assignments in the software, you select whether students will use the online or the paper assignment format. If students will access and score their assignments online, their assignments will be scored automatically by the software. If you generate paper assignments instead, students can use the online program to score them. (If you will be using the software to score printed assignments, we recommend having at least one computer available for every five students.) Below, we provide some general instructions for scoring online. See the supplement for more details.

**Scoring assignments generated for online access.** Once the student has worked out all of his math problems, he records his answers online and clicks Review and Submit. At this time, the student is given the opportunity to review his work one last time. After reviewing, the student clicks Submit. The assignment is immediately scored and an assignment summary appears on-screen.

**Scoring assignments generated as paper assignments.** If enough computers are available, students working with printed assignments can score them online. In this case, students work their printed assignments as they normally would, keeping track of their answers by circling them and writing their answer choices in the left-hand margin of their assignment sheet as they go. When ready to score, the student logs in to Renaissance Place and clicks Start Working under the Accelerated Math tab. After the student selects his assignment type, the software presents him with a virtual scan card that corresponds to the assignment form he is working on. The student enters his answer choices here. When finished, he clicks Submit, and an assignment summary appears on-screen.

### SUMMARY: BEGINNING TASKS IN THE SOFTWARE

This chart summarizes the tasks that must be done before you can begin making assignments for students. Some tasks are performed by you, and some by other staff.

<table>
<thead>
<tr>
<th>Task</th>
<th>Technology Staff or Administrator</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter district, school, calendar information, teachers, and students.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Add courses and classes, and assign teachers.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Make sure computers meet the software requirements for using Accelerated Math and its related scoring software.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Create groups in your Assignment Book, if needed.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Assign an objective list to each class or group.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Print an Objective List Report for each class.</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Identify Routines and Assemble Materials

To get results with Accelerated Math, it’s essential that you establish routines so students can work efficiently and independently. It’s also important, as we discuss further in the next chapter, that you explicitly teach these routines to students and provide plenty of opportunities for practice and reinforcement. Effective routines enable students to work without you, which in turn frees you to help individuals and teach small groups. If you find yourself chained to your desk, have students standing in lines for a long time, or feel exhausted after math class, then you may need to establish more efficient procedures for basic tasks.

As you read through the information on the following pages, think about how you can best establish routines to support Accelerated Math practice in your classroom. The appendix includes step-by-step instructions for some common procedures that you can adapt for your use.

How will students organize their materials?

For maximum efficiency, students must keep their materials organized and near at hand. Many teachers give each student a binder or folder where they can put work in progress, outstanding assignments, and TOPS Reports. Three-ring binders with pocket dividers can help students organize papers by assignment type, but some teachers find that pocket folders—vinyl holds up well under heavy use—are easier to store in a classroom. If students will scan, consider creating a folder that includes pockets so students can easily keep track of their scan cards. You might have students color-code the scan cards by marking the top of each one with a highlighter pen: green for practice assignments, pink for regular tests, and so on. (See below and right for examples of how students can organize their Accelerated Math materials.)

Examples of How Students Can Organize Their Accelerated Math Materials
A two-pocket folder makes it easy to keep everything in one place, including extra paper and work in progress.

A three-ring binder with pocket dividers can help students organize work by assignment type.

A four-pocket folder—one pocket for each assignment type—can be made by gluing together two 2-pocket folders.

Teach students to leave their folders in a designated place at the end of each math period to ensure that materials won’t get lost and so you have easy access to students’ work. Some teachers, especially in middle or high school, choose to have students bring materials to and from class each day.

How will you give students new work?
Accelerated Math usually generates practice assignments automatically for students, but there will also be times when you need to generate and distribute assignments, like tests. If students leave their folders in class, take a few minutes before class to put new assignments in the folders—perhaps clip them to the outside or slip them inside on top of other papers. That way, you won’t need to waste time handing out assignments at the beginning of math class. If your students will bring their folders to and from class, establish a system for handing out new work, perhaps designating a student helper, so you don’t have to waste time at the beginning of class.

How should students complete and score assignments?
Instruct students to complete an entire assignment before scoring it. That means working each problem—being sure to show the work on the assignment itself or on a separate piece of paper—and circling answer choices. You might also have students write their
answer choices in the margin next to each problem. After all this is done, students can fill in the scan card (if scanning) or input their answers (if using Renaissance Responders or NEO 2s or scoring online). In our experience, taking the above steps makes students less likely to make scoring mistakes, like bubbling an answer on the wrong line or entering an answer for the wrong problem.

You will want to establish a routine so students can score assignments efficiently. Below we outline a few tips for each method of scoring: the AccelScan scanner, Renaissance Responders, NEO 2s, or online using computers, laptops, or tablets.

**AccelScan scanner.** Take time early in the school year to thoroughly teach students how to complete scan cards and scan them. That way, you can spend less time later on with troubleshooting.

As you notice common scanning mistakes, discuss them with the whole class in a constructive way so that students can learn how to avoid them. Here are some important points to emphasize:

1. Check that you have the right scan card for the assignment type. If starting a new card, be sure to copy the form number from the top of the assignment onto the scan card. Also check the box that indicates the assignment type.
2. As you bubble in answers, be sure to match the question number on the scan card with the question number on the assignment.
3. Press firmly and fill in the bubbles completely.
4. Check that you have ended on the correct question number, have only one answer for each question, and have bubbled in the choices circled on your assignment. (You might even establish a peer-checking system to help with this; we discuss “bubble buddies” in Chapter 8.)

5. Erase any stray marks.

6. Bring your scan card, assignment, and paper showing your work to the scanner.

Set up a system so that students can take turns at the scanner in a fair and organized manner. Here are some suggestions:

- Have students write their names on the board when they finish an assignment. After one student scans, she erases her name. This signals the next student on the list to take her turn at the scanner.
- Have students pick up a numbered card from the top of a pile as they are ready to scan. After one student scans, he quietly calls out the number that follows his.

Make sure students who are waiting to scan have productive work to do, like completing other assignments or practicing math facts. To cut down on wait time, allow students to scan throughout the day and not just during the math period—when they’ve finished work in other subjects, before and after school, or during a free period.

Renaissance Responders and NEO 2s. Most students learn how to score with Renaissance Responders or NEO 2s with ease. Even so, it helps to create routines around scoring—like when and how to retrieve a scoring device—to ensure that the process runs smoothly. Here are some points to consider:

- Establish a routine that supports the number of students versus the number of scoring devices in your room. If students will share devices, teach them to get a Renaissance Responder or NEO 2 when they’re ready to score and then return it to a central location when finished. If you have as many scoring devices as you have students in a math period, you might have students pick up a Renaissance Responder or NEO 2 at the beginning of math class and then return it at the end. Also consider storing the scoring devices in several locations around the room to avoid a bottleneck at the beginning or end of class. Some teachers number their Renaissance Responders or NEO 2s and also assign a number to each student. This helps keep track of scoring devices during math class, and also sets the stage for teaching students to take responsibility for their assigned devices.

If the Bell Rings When Students Are Scoring...

If students need to switch classes or periods before they finish scoring an assignment with a Renaissance Responder or NEO 2, go ahead and click End Session in the Renaissance Responder scoring software. The program will then prompt you to make a choice: score assignments as completed so far (causing any unanswered problems to be scored as incorrect) or save them to be completed later. Choose to save the assignments to be completed later so that in-progress assignments will not be scored. Students can then re-enter responses the next time they log in to score their assignments.
• Be sure that students can locate the form number at the top of their assignments. The form number identifies each assignment to the software, and students will need to enter it on the Renaissance Responder or NEO 2 when prompted.

• Have students double-check responses on their Renaissance Responder or NEO 2 before submitting them to the software. Students should enter all answers, choose “No” when asked *Are you ready to submit work?*, and then go through their answers again. If they entered an answer incorrectly, they can change it the second time around. This helps catch errors before work is scored.

**Scoring online.** If students will be scoring their assignments online, you will still want to consider many of the points already mentioned. For example, if there are not enough computers, laptops, or tablets for every student, students will need to share the available scoring devices. You will need to establish a routine to streamline this process. See the supplement for more information about scoring online.

**How will students share their work with you?**

When students score assignments, they receive a TOPS Report (or an assignment summary, if working online) and possibly a next practice assignment. Teach students to retrieve their TOPS Report from the printer, and then staple it to the top of their scored assignment and other papers showing their work. This helps keep all the related pieces together for an assignment. Also think about when you want to review the TOPS Reports. We offer a couple of suggestions below.

• Some teachers set up a system for handing in TOPS Reports based on student performance. For example, they might use two baskets: one for students who answered all problems correctly (colored green or labeled Wow!) and another basket for students who missed some problems (colored red or labeled Oops!). Students who receive 100 percent immediately put their TOPS Report (and attached assignment and related work) in the green/Wow! basket. Students who missed problems first attempt to correct their mistakes using resources in the room—notes, textbooks, online videos, or peers—and then put their TOPS Reports in the red/Oops! basket. (In the next section, we discuss various resources and explain a strategy that students can use when they need help.) If you choose a system like this to check student performance, try to review TOPS Reports soon after they’re handed in, starting with those at the bottom of the red/Oops! pile. Students are primed for instruction right after scoring; plus you want to reach them before they repeat their errors on the next assignment.

• Other teachers remain at their desks during Accelerated Math practice time and have students come to them after scoring. They quickly acknowledge students who did well, sign their TOPS Reports, and give the go-ahead to keep practicing. For students who struggled, they look over the work with the student, ask questions, and try to clear up simple misunderstandings. They may even rework a problem with the student before having the student independently correct the other missed problems. (In the next section, we discuss various resources and explain a strategy that students can use when they need help.) If you choose a system like this to check student performance, it might take time to figure out the workflow. If you find students are clustered around your desk or are waiting for a long time, teach them how to wait for you and try to keep the traffic moving. Students who are doing well may not need much of your time, and those who
are struggling may be able to rework a couple of problems independently before returning to you for additional help.

Be sure to keep track of which students you meet with each day to ensure that no one is neglected. You might choose to fill out a Status of the Class Record Sheet (a reproducible form is in the appendix) or make notes on a copy of your Status of the Class Report (see an example in the next chapter). We further discuss meeting with students one-on-one to provide feedback and discuss their work in the next chapter.

**What resources will students access independently?**

Students will inevitably need help while working on assignments. However, since there’s only one of you and a roomful of them, think about what additional supports you can build in the classroom. By helping students help themselves—at least with smaller issues—you will have more time to meet with students one-on-one or in small groups to tackle bigger problems. Below we describe a few possible resources and explain a strategy students can use when they need help.

- **Notes.** Make it explicit that students must take notes during your lessons. This way they will have something to refer to as they complete assignments and rework missed problems. Give students precise instructions on how to take good notes and model the procedure.

  For example:
  1. Write the date of the lesson, the name and number of the Accelerated Math objective, and any corresponding textbook pages at the top of the notebook page.
  2. Accurately copy sample problems from the lesson.
  3. Indicate the steps in the solution. Highlight or underline the key points.

  You may want to share an example of a good notebook entry with students and post it in the room. Some teachers like to supplement student notes with sample problems from the software or library guides. (A reproducible form for taking notes is in the appendix.)

- **Worked examples.** Consider having students refer to worked examples when they need help. The worked examples could be supplied by you, come from master notes compiled by a student during class, or be copied by students during instruction. (We explain how to access worked examples in the software earlier in this chapter.) If you decide to create your own worked examples, be sure to include the objective number and related textbook pages. (Students also have ac-
cess to worked examples in Renaissance Home Connect; see Chapter 5 to learn more about the program.)

- **Assistance from peers.** Teach students how to get help from their peers while working on practice assignments or exercises, and arrange desks so students can easily work together. You could also identify students who could help each other with specific objectives. For example, choose one student who has done well with an objective and another one who is struggling with it. Call the students to you at the same time without identifying who is struggling. When the students arrive at your desk, ask the student who is doing well to help the other student with a practice assignment or exercise that includes the objective. To identify pairs of students, scan the Assignment Book. Focus on the student who is having difficulty with an objective and then look for a student who has mastered the same (or a similar) objective. If students are working online, the software will provide suggestions for who they might work with on a particular objective.

- **Reference materials.** Of course, textbooks and other curricular materials are also valuable resources for students. Be sure students know which textbook pages relate to each Accelerated Math objective. (You may have indicated this on a copy of your Objective List Report.) If students will reference instructional videos online, be sure to provide the appropriate links for the concepts they’re working on.

When students make mistakes on practice assignments or exercises, require them to use their TOPS Reports to identify the problems they got wrong. Then have them rework the problems, getting help as needed from their notes, the textbook, other materials in the room, or another student. We suggest you teach students a procedure that we call “three before me” (**3 B4 Me**). This means that students must use three resources to figure out how to rework a problem before asking you for help. If students still have questions, they write them down on their assignment so they can remember to discuss them with you. In the next chapter, we discuss having one-on-one meetings with students to discuss their work.

**TOPS Report Options**

By default, students will see correct answers for missed problems on their TOPS Reports or on the online assignment summary. You have the option to not print the correct answer by changing the preference for a class. (See TOPS Report under Preferences in the software.) Regardless of whether students see the correct answer or not, the protocol is for students to rework missed problems and show how they arrived at a different answer.

---

**Notes**

**Textbook**

**Neighbor**

**Teacher**

**3 B4 Me:** Teach students to use three resources to figure out how to rework a problem before asking for your help.
How will students test?
Establish a way to identify students who are testing and make sure everyone knows not to disturb them. Some teachers print tests on colored paper for this purpose, or have students place a privacy shield or testing signal (like a colored cup) on their desk. You could also designate a special section of the room for testing. We recommend that you set the following rules so that students test consistently:

- No talking when testing.
- Have only your test, blank paper, and scoring materials (scan card, Renaissance Responder, NEO 2, or computer device) in your testing space.
- Finish before the end of the math period.

You may choose to establish additional procedures to reinforce that testing to show mastery is a different task than practicing. For example, some teachers establish a protocol for checking in with students right after they test, either setting up a separate basket to collect tests or having students come directly to them. Others quickly skim work for tests before students score: they make sure that work has been shown for each problem, that bubbles on the scan card are filled in for the assignment (if scanning), and that students aren’t generally off course. This preemptive measure helps troubleshoot guessing, failing, and becoming frustrated.

Friday as Testing Day
Some teachers dedicate Fridays to testing. This helps their students focus on practicing objectives—and becoming ready to test on them—during the rest of the week. It also makes it likely that students won’t accumulate too many ready-to-test objectives before testing on them. Finally, it ensures a quiet testing environment.
How will students know what to do next?

Students need to know what to do at each point during the math period, especially if you want them to practice independently and efficiently. Post daily the main planned activities so students can anticipate the flow of class. For example, on Monday through Thursday, some teachers start with whole-group instruction, transition to Accelerated Math practice and small-group or one-on-one reteaching, and close with a whole-group activity. They reserve Fridays for testing, having students move on to related tasks when finished. Whatever your schedule, try to keep it consistent from week to week so students can anticipate how class will run each day.

One Teacher’s Plan

<table>
<thead>
<tr>
<th>Monday through Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole-group instruction</td>
<td>Testing on ready-to-test objectives</td>
</tr>
<tr>
<td>Accelerated Math practice and small-group or one-on-one reteaching</td>
<td></td>
</tr>
<tr>
<td>Whole-group closing activity</td>
<td></td>
</tr>
</tbody>
</table>

Give students additional instructions for Accelerated Math practice time. Which assignment should students complete first? When should they score? Some teachers post guidelines in the room and have students keep a copy of them in their math folders. The guidelines include the order that assignments should be completed, the steps for scoring assignments, and what to do if finished with Accelerated Math work. Teachers refer to the guidelines often, especially at the beginning of the school year, to reinforce the behavior of students working well and redirect students who are off task.

Arrange Your Classroom

Think about how your classroom setup can support Accelerated Math practice. For example, make sure your scoring station is in an easy-to-access location and includes the following:

- Printer
- Stapler and a box of staples
- Extra copy paper
- Supply of pencils, erasers, and blank paper on which students can work problems

If students will scan, also include the AccelScan scanner, extra scan cards, and perhaps a computer (with the AccelScan software installed) dedicated to scanning. If scoring with Renaissance Responders or NEO 2s, make sure there is at least one computer in the classroom with the Renaissance Responder scoring software installed and the Renaissance Receiver attached. In either case, make sure that the computer with the scoring software installed can print to the scoring station. Lastly, if students are scoring online, you will need at least one computer-scoring device for every five students in your classroom. Because students will enter their answers through Renaissance Place, each device will need a reliable Internet connection.

Also determine where to place a couple of boxes or baskets (if using them to collect student work) and where to store scoring devices (if using them to score assignments).
Finally, arrange seating to facilitate small-group instruction, one-on-one meetings with students, and student collaboration. (See page 9 for an overhead view of a sample Accelerated Math classroom; examples of scoring stations are below.)

Examples of Scoring Stations
Checklist

☐ Prepare to use the Accelerated Math software.
  ☐ You need at least one computer on which to manage the software. Some teachers use two computers during Accelerated Math practice, especially if students will scan: one to manage the Accelerated Math software and the other for scoring assignments.
  ☐ Log in to Renaissance Place and access your Assignment Book to confirm that a technology administrator has added your classes and students.

☐ Become familiar with Accelerated Math libraries and objectives by viewing the library guide and scope and sequence for at least your grade or subject level.

☐ Set up your Assignment Book.
  ☐ Create groups in your class Assignment Book, if needed.
  ☐ Assign an objective list to each class (or group).

☐ Print an Objective List Report for each class.

☐ Prepare for students to score assignments.
  ☐ If students will scan, install the AccelScan software on a computer and connect the AccelScan scanner. (See the software manual for instructions.) Also make sure you have Accelerated Math scan cards for students to use.
  ☐ If students will use Renaissance Responders or NEO 2s, install the Renaissance Responder scoring software on your computer, connect the Renaissance Receiver, and set the Renaissance Place address in the wireless server utility. (See the software manual for instructions.)
  ☐ If students are scoring online, be sure each computer, laptop, or tablet being used has a reliable Internet connection and access to Renaissance Place.

☐ Identify routines and assemble materials.
  ☐ Help students create folders or binders to organize their math materials.
  ☐ Decide whether students will bring their folders or binders to and from class or if students will keep them in your classroom. If keeping them in the classroom, identify where they will be stored, and set up any necessary bins or containers.
  ☐ Determine how you will distribute assignments to students.
  ☐ Outline a procedure for students to use when completing assignments.
  ☐ Create a scoring routine.
  ☐ Plan for how students will share their work with you.
  ☐ Assemble resources so students can get help independently, and decide how and when students should use the resources.
  ☐ Identify routines for testing, including how students will test and if you will set protocols for scoring tests and viewing results.
  ☐ Decide how students will know what to do during the math period, and create any guidelines that you will post and/or give to students.

☐ Arrange your classroom to facilitate Accelerated Math practice. Keep in mind student routines and procedures for scoring assignments, receiving and handing in work, accessing resources, getting help from peers, and meeting with you one-on-one or in small groups.
SUMMARY

PLANNING AND BEGINNING TASKS

• Take time to explore the software and become familiar with Accelerated Math libraries and objectives.

• Perform some preliminary tasks in the software, including setting up the Assignment Book, so students can begin working with Accelerated Math assignments.

• Prepare for students to score assignments with the AccelScan scanner, Renaissance Responders, or NEO 2s. If students will be scoring online, prepare them for using the appropriate devices for this purpose.

• Identify routines and procedures for Accelerated Math practice—and arrange your classroom to support them—so you can set up students for success.
Getting Started

Keep it simple. That’s the key to a successful launch of Accelerated Math. We begin this chapter by describing how to use a practice run as one way to accomplish this. We then explain how to transition out of the practice run to get started with regular instruction and practice. The rest of the chapter covers checking daily performance, planning, and pacing.

Begin with a Practice Run

A practice run can help you and your students ease into Accelerated Math practice. During the first few days of your implementation, have students practice a few familiar Accelerated Math objectives so they can focus on learning new routines rather than tackling new material. This will also give you time to teach routines and try out basic software tasks.

To start with a practice run, assign a familiar objective to the whole class and generate an initial practice assignment for each student. Then assign another objective in the software. (This ensures that Accelerated Math can generate students’ next assignments. Going forward, next practice assignments will automatically generate as long as objectives are eligible for practice in the software.) The objectives you choose might be prerequisites for your current instruction, serving as a refresher for students before they practice new content. Or you could simply start out with objectives that all students would benefit from reviewing, like those related to basic math facts. In any case, it’s a good idea to start out with objectives students already know so they can experience immediate success with the program. (The appendix includes instructions for assigning objectives and generating assignments.)

As students complete assignments during the practice run, they will try out scoring assignments, picking up TOPS Reports and next assignments, and handing in work. Be sure to give clear and explicit instructions for these routines, and make any necessary adjustments as the need arises.

Using Exercises during a Practice Run

During a practice run, some teachers use exercises instead of practice assignments. This gives them maximum control over when assignments are generated and makes it possible to use identical assignments with students. Exercises can also help teachers begin with familiar objectives even if their students have previously used Accelerated Math: a mastered or reviewed objective can be included on an exercise without changing its status. (In other words, a mastered or reviewed objective will retain its status regardless of a student’s performance on additional exercises that include the objective.) If you choose to start out with exercises, remember to incorporate practice assignments after a few days so Accelerated Math can automatically generate assignments and so students can benefit from personalized practice, including review.
Also remember to post visual aids that support procedures or create them with students during the practice run. Make copies of the procedures that you want students to include in their math folders.

We suggest the following steps for teaching classroom procedures:

1. Break the procedure into steps. Explain and model each step.
2. Create a poster listing the steps, if appropriate. Place the poster near the spot where the procedure must be followed.
3. Ask a few students to demonstrate the procedure before the entire class. Tell the others to notice if it was followed correctly or if steps were missing.
4. Have all students practice the procedure. Don’t expect perfection. Correct mistakes and acknowledge students who follow procedures well.
5. Review the procedure throughout the year.

Even if your students have previously used Accelerated Math, you might still choose to use a practice run to teach procedures and routines specific to your classroom. Keep in mind that Accelerated Math practice will run much more smoothly if students are given clear and explicit instructions on how to complete assignments, enter their answers, show their work, review reports, store their papers, and ask for help.

**Start Differentiating Instruction and Practice**

Are students following routines with little help from you? Are you comfortable with the software? If so, then it’s probably a good time to transition out of the practice run into a full implementation of Accelerated Math. In this chapter, we explain how to get started with the two frameworks first described in Chapter 2:

- **Whole-group instruction and practice, with differentiation**
- **Fully differentiated practice and instruction**

See Chapter 3 to learn how to set up your Assignment Book to support either framework.

**Whole-group instruction and practice, with differentiation.** This framework enables teachers to focus on grade- or subject-level objectives with the whole class, while also providing additional individualized instruction and practice as needed. Most teachers who use this approach start out with practice assignments as their main assignment type for daily practice. (Practice assignments can include objectives assigned to the whole class as well as objectives assigned to individual students for remediation or enrichment.) Then, as the need arises, teachers might use exercises alongside practice assignments, perhaps to help with pacing or to target specific objectives with individual students, small groups, or the whole class. To learn more about how to begin with this approach, see the next page.
# How to Get Started: Whole-Group Instruction and Practice, with Differentiation

<table>
<thead>
<tr>
<th>Before Day One</th>
<th>Day One</th>
<th>Day Two</th>
<th>Succeeding Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan lesson</td>
<td>Teach lesson</td>
<td>Teach lesson</td>
<td>Assign objectives</td>
</tr>
<tr>
<td>Assign first objective</td>
<td>Distribute first practice assignments</td>
<td>Reteach objectives to small groups, as necessary</td>
<td>Teach lessons</td>
</tr>
<tr>
<td>Generate first practice assignments</td>
<td>Review student work</td>
<td>Review student work</td>
<td>Review student work</td>
</tr>
<tr>
<td>Assign second objective</td>
<td>Plan next steps</td>
<td>Plan next steps</td>
<td>Reteach objectives to the whole class, small groups, or individuals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assign third objective</td>
<td>Generate exercises as needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Generate regular tests for successfully practiced objectives</td>
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<td></td>
<td></td>
<td></td>
<td>Plan next steps</td>
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</tbody>
</table>

The day before your first lesson, choose an objective related to what you plan to teach. Assign it to the whole class and then generate practice assignments for all students. This way, the practice assignments will be ready for you to distribute after you finish the lesson, and they will contain problems for only the objective you plan to teach. Now think ahead. Which objective will you teach next? Assign it but don’t generate anything additional. By assigning it, you’re simply letting the software know that it can generate another practice assignment that includes the second objective when a student scores the first one.

The next day, teach your lesson on the first objective and hand out the related practice assignments. After a student submits answers, the software will check them and generate a TOPS Report (or an assignment summary, if students are working online) and a new practice assignment. Students can correct any problems they missed, and hand in the work to you. Students should wait to begin their next practice assignments until the next day. Check TOPS Reports and the Assignment Book to see how students are doing. Identify students who may need help.

On the second day, teach your lesson on the next objective and tell students to complete the practice assignments they received the day before. If any students need help with the first objective, meet with them at this time. Students will score assignments, pick up TOPS Reports, correct missed problems, and hand in work. Again, view TOPS Reports and the Assignment Book to check student progress. Decide whether students are ready to move ahead with another objective. If so, assign the objective in the software and plan to teach it the next day.

Over the succeeding days, continue to assign and teach objectives, provide time for math practice, review student work, and reteach as necessary. While students are practicing independently, check in with anyone who is struggling. You may want to generate exercises to target specific objectives with an individual, a small group, or the whole group. Also generate regular tests to enable students to master practiced objectives. (Later in this chapter, we discuss how the Status of the Class Report can help you monitor practice and plan next steps.)
How to Get Started: Fully Differentiated Instruction and Practice

<table>
<thead>
<tr>
<th>Before Day One</th>
<th>Day One</th>
<th>Next Few Days</th>
<th>Succeeding Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan diagnostic testing</td>
<td>Administer first diagnostic tests</td>
<td>Hand out diagnostic tests</td>
<td>Teach lessons to small groups or individuals</td>
</tr>
<tr>
<td>Generate first diagnostic tests</td>
<td>Review student work</td>
<td>Teach lessons to small groups or individuals</td>
<td>Reteach objectives to small groups or individuals</td>
</tr>
<tr>
<td>Plan next steps</td>
<td>Plan next steps</td>
<td>Review student work</td>
<td>Review student work</td>
</tr>
<tr>
<td>If students are successful, generate second diagnostic tests; if not, generate initial practice assignments</td>
<td>Generate additional diagnostic tests (for students testing)</td>
<td>Plan next steps</td>
<td>Plan next steps</td>
</tr>
<tr>
<td>Assign and monitor objectives (for students practicing)</td>
<td>Generate diagnostic tests</td>
<td>Generate regular tests</td>
<td>Generate diagnostic tests</td>
</tr>
</tbody>
</table>

The day before your first math period, generate a diagnostic test for each student. Include the objectives that appear first on the student's assigned objective list, or a set of objectives on the list close to the student's skill level. Some teachers choose to include only core objectives on diagnostic tests, perhaps as identified by their school or district. (Core objectives are also identified in most of Accelerated Math's libraries; see Chapter 1 for more information.)

On day one, hand out the diagnostic tests, explain their purpose to students, and have students complete and score the tests. Students should then retrieve their TOPS Reports from the printer (or access their assignment summary online), staple the report together with the scored assignment and related work, and hand in the whole packet. (Students should not correct missed problems since you're trying to pinpoint where practice and instruction should begin for each of them, not testing their understanding of objectives taught in class.) Review each student's TOPS Report and plan for the next day. Keep in mind that your goal is to identify the objectives students need to practice. So, for students who showed mastery, generate another diagnostic test including the next set of objectives on their assigned objective lists. If some students are already struggling, generate initial practice assignments for them. The software will automatically include objectives with which they had trouble on the diagnostic test.

The next few days, continue to give students diagnostic tests as long as they show mastery of objectives. When you see that a student is encountering math concepts he doesn’t know, discontinue diagnostic testing and move the student into the cycle of practice, test, and review: reteach an objective, check that its status is ready to work in the software (or assign it), and generate an initial practice assignment. (Accelerated Math automatically generates a next practice assignment when a student scores one, as long as objectives are eligible for practice in the software.) If you identify several students who need help with the same objectives, plan instruction for the small group and generate practice assignments or exercises that include the objectives. Students score assignments, retrieve their TOPS Reports, and perhaps access their next practice assignment. They should correct problems, with help from you or other resources in the room, and hand in completed work. To plan your next steps, review TOPS Reports and check the Assignment Book. (Later in this chapter, we discuss how the Status of the Class Report can also help you plan next steps.)

Over the succeeding days, continue to generate diagnostic tests as needed. Once students are in the cycle of practice, test, and review, shift to assigning the next objective or group of objectives you want them to work on, identifying who needs instruction, and preparing short lessons for individuals and small groups. Also generate regular tests so students can master practiced objectives and diagnostic tests to help students advance through sets of known objectives.
**Fully differentiated instruction and practice.**
This framework enables teachers to meet the needs of each student at an individualized level for instruction and practice. Mostly, teachers will take advantage of this framework when they are teaching a class that is in addition to students’ regular math classes, has fewer students than a regular math class, and targets individual critical skill gaps so students can move ahead quickly. Teachers who adopt this approach often start by generating diagnostic tests to help pinpoint the specific objectives students already understand and the ones with which they need more practice. They then provide instruction on the objectives a student does not understand, generating practice assignments for follow-up practice. To learn more about how to begin with this approach, see the previous page.

**Leading with Diagnostic Tests**
Be sure to explain the purpose of initial diagnostic tests to students in a fully differentiated classroom. Even though students may see “test” at the top of their assignments, a poor score will really mean, “Great, we found what you need to practice!,” not “Bad job.” That’s because the diagnostic tests are meant to help you and your students find where instruction should logically begin for each of them. Then, going forward, you’ll shift between the practice mode and the diagnostic testing mode to efficiently provide instruction where each student needs it the most.

**Practice Assignments vs. Exercises**
Students become ready to test on objectives via practice assignments or exercises. Practice assignments are based on objectives you assign as well as on student performance. When the software generates a new assignment, it sees the objectives you assign as eligible for practice; it considers the order of the objectives assigned in the objective list; and it considers the student’s performance-to-date with the objectives in its queue. The software automatically generates a next practice assignment after a student scores one as long as objectives are eligible for practice, e.g., *assigned*, *ready to work*, or up for review. Exercises, on the other hand, are generated by you for any objectives and for a specified number of problems; they do not include review objectives. When students complete five out of the last six practice problems correctly for an objective—either on practice assignments, exercises, or a combination of the two—the objective becomes *ready to test*. 

**Guide Students through Practice, Test, and Review**
Regardless of the framework you choose for Accelerated Math, the cycle of practice, test, and review will be at its core. We briefly described this cycle in Chapter 1: students practice content until they know it (either on practice assignments or exercises), take regular tests to demonstrate mastery, and then review mastered objectives on practice assignments. Here, we take a closer look at each stage.

**Practice.** During the practice stage, students work independently or with light guidance on objectives you teach in class. However, before you include an objective on a practice assignment or exercise, be sure to preview problems for it in the software or in a library guide. Does your textbook present an objective differently than Accelerated Math? If so, point out the
differences to students so they know how to approach the assignment. Some teachers project the sample problems or worked examples for this purpose. They discuss strategies or walk through a problem with the whole class before students work on assignments independently. You can access the math glossary in the software to help teach or review terms related to the practice objectives. (Locate the math glossary in the Assignment Book under Other on the left. The math glossary and worked examples are also available to students and parents in Renaissance Home Connect; see Chapter 5 to learn more about the program.)

Monitor practice by checking TOPS Reports and the Assignment Book—or by viewing the Status of the Class Report, discussed later in this chapter—to make sure students are on track to advance to testing. (When a student answers five out of the last six problems correctly for an objective, the objective becomes ready to test.) Make sure that students know how to get help if they are struggling with an objective, either from resources in the room—including notes, textbooks, and peers—or from you. (We discuss resources, and a strategy for using them, in Chapter 3.) The practice stage is an ideal time for students to work with one another to learn objectives, and Accelerated Math facilitates this collaboration by generating a vast supply of problems for the same objectives. So, even if students are working on the same objective while they practice, they will likely have different problems.

Test. Regular tests enable students to master objectives that they have practiced successfully—i.e., that have become ready to test—via practice assignments or exercises. You can view TOPS Reports, the Assignment Book, or the Status of the Class Report (discussed later in this chapter) to see how many testable objectives each student has. As a general rule, generate a regular test when a student is ready to test on three to five objectives. You may decide to limit the scope of tests for some students by including only one or two objectives at a time. Some teachers establish a weekly testing day, such as Friday, so students don’t accumulate too many ready-to-test objectives and to ensure a quiet testing environment. (The appendix includes instructions for generating regular tests.)

Tests include five problems per objective. When a student answers four out of the last five problems correctly for an objective, the objective becomes mastered. The Test TOPS Report, which prints when a student scores a test, shows how many objectives the student mastered. (See an example on the next page.) If a student doesn’t master an objective on a regular test, check in with her to see if she understands her mistakes. If not, provide additional instruction before generating another test so the student can master the objective on the second attempt.
Getting Results with Accelerated Math Live

**Test TOPS Report**

*for Max Bryson*

- **School**: West Middle School
- **Class**: Math 5B
- **Teacher**: J. Evans
- **Grade**: 5

**Number Correct: 17 / 20 (85%)**

**Objectives Mastered: 3**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem</th>
<th>Your Answer</th>
<th>Correct Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>84. Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>29</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>85. WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>33</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>86. WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>35</td>
<td>D</td>
<td>C</td>
</tr>
</tbody>
</table>

**Objectives on this Practice (4)**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Results</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>83. Estimate the sum of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>5 / 5</td>
<td>100%</td>
</tr>
<tr>
<td>84. Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>4 / 5</td>
<td>80%</td>
</tr>
<tr>
<td>85. WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>3 / 5</td>
<td>60%</td>
</tr>
<tr>
<td>86. Multiply a decimal number through thousandths by 10, 100, or 1,000</td>
<td>5 / 5</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Overall Progress**

<table>
<thead>
<tr>
<th>Average Percent Correct</th>
<th>Objective Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marking Period (10% Complete)</td>
</tr>
<tr>
<td>Practice %:</td>
<td>82%</td>
</tr>
<tr>
<td>Test %:</td>
<td>87</td>
</tr>
<tr>
<td>Review %:</td>
<td>82</td>
</tr>
</tbody>
</table>

**Ready to Test: 1**

Goal for Marking Period: 36

Total Mastered this Marking Period: 10 (28% of Goal)

Total Mastered this Year: 51

**Test TOPS Report**

This report is generated after a test is scored. It includes the student’s score, the number of objectives mastered on the test, incorrect responses, and progress toward individualized goals.

**Review.** About two weeks after a student masters an objective, review problems for it begin to appear on the student’s practice assignments. Each practice assignment includes one problem per review objective. When a student completes three out of the last four problems correctly for a review objective, the objective becomes reviewed and Accelerated Math stops automatically including it on the student’s assignments.
Overview: Practice, Test, and Review

- **Objective Assigned**: Teacher assigns objectives related to instruction.
- **Exercise Generated**: Student is Working 5 out of 6 required.
- **Practice Generated**: Student is Working 5 out of 6 required.
- **Exercise**: Teacher generates if objective is in intervene state due to student being unsuccessful while practicing.
  - **Student is Working 5 out of 6 required**.
- **Diagnostic Test**: Teacher generates if objective is in intervene state due to student being unsuccessful while testing or reviewing.
  - **Student is Diagnostic Testing 4 out of 5 required**.
- **Did the student pass?**
  - No after 3 attempts
  - Yes
  - Student is Ready to Test
  - Teacher generates regular test
    - **Student is Testing 4 out of 5 required**.
  - Did the student pass?
    - No after 2 attempts
    - Yes
    - **Objective Mastered**: After two weeks, the objective begins to appear on practices as Review. 3 out of 4 required.
    - Did the student pass?
      - No after 2 attempts
      - Yes
      - **Objective Reviewed**: Objective has been reviewed and will no longer automatically appear on assignments.

This flowchart shows how an objective moves through the stages of practice, test, and review. (An objective also goes to the intervene stage if a student struggles repeatedly with it during practice, test, or review.) This flowchart begins with an objective in the practice stage; however, a student may also encounter an objective for the first time on a diagnostic test.
Check Daily Performance

As students practice, view TOPS Reports and the Assignment Book to check daily performance and to gauge whether students need extra help. Later in the chapter, we’ll see how the Status of the Class Report can help you efficiently monitor practice and plan instruction.

Review TOPS Reports or Assignment Summaries

As mentioned in Chapter 3, establish a system for collecting and viewing TOPS Reports, perhaps setting up a two-basket system or having students come to you after scoring. If you notice that a student is having difficulty with an objective, plan to have a one-on-one meeting with the student. This conference is driven by three important pieces of information: the assignment the student was working on, the student’s work for each problem, and the TOPS Report or online assignment summary. Using these pieces of information, you can target instruction to address the very problems with which the student needs help. You and the student discuss the student’s work to analyze errors, gauge the level of necessary reteaching, and decide whether the student is ready for further practice on the objective.

One-on-One Conferences

The one-on-one conference between teacher and student is driven by three important pieces of information: the student’s assignment, the student’s work for the assignment, and the TOPS Report (or assignment summary, if the student is working online). More recommendations for effective conferences are provided in the supplement.
You can stay seated and call students to you for conferences or circulate around the room. Keep the discussion brief, especially if the student understands his mistakes. If the student has not been able to correct his errors, examine his work and help him understand what he is doing wrong. Rework a problem together and ask the student to rework the remaining problems on his own (perhaps returning to his desk to do so). If the student missed problems on several objectives, discuss the simplest objective first. Wait until he has reworked the problems for that objective before moving on to the others.

Meeting with students having difficulty is your highest priority, but don’t neglect those who are doing well. Acknowledgment from the teacher for a job well done motivates students to keep working hard.

Check the Assignment Book

The Assignment Book updates as students score their assignments to reflect practice in real time. In Chapter 1, we explained how the Assignment Book uses symbols to communicate each student’s status with individual objectives. View the Assignment Book on the next page as we explain additional information it provides:

- **The date on which outstanding assignments of each type were generated.** By moving the mouse over the date, you can also see the assignment’s form number and the objectives included. Dates in bold show you which assignments were generated three or more school days ago.

- **The number of objectives a student is ready to test on.** Find this number in parentheses in the Test (Ready) column. You will see a number if a student is ready to test on objectives and does not already have a regular test.

- **Whether action may be needed for each student.** You may need to generate an assignment, intervene because a student is struggling with an objective (discussed further in the next section), or assign objectives because a student has no or few objectives that are eligible for practice. “Generate Test” appears when a student is ready to test on five or more objectives and has at least one outstanding assignment that is not a regular test. Click a message in the Action column to begin the action.

The above information also appears on the Status of the Class Report, discussed later in this chapter.

**Math Error or Scoring Error?**

Checking the TOPS Report can help you see if a student missed a problem because of a scoring mistake. If the software cannot identify an answer for a problem, it considers the problem incorrect and puts either a dash or a question mark for “Your Answer” on the TOPS Report: a dash indicates that the student did not record an answer for the problem, and a question mark means that the AccelScan scanner read two answers for the same problem (either the student didn’t erase the scan card completely, or he bubbled in two answers on one line). In situations like these, check the answers on the student’s assignment and then manually rescore the assignment. (See the appendix for instructions.)
Getting Results with Accelerated Math Live

**Performing the listed actions will keep students working.**

**This student is ready to test on two objectives.**

**A date in bold indicates that an assignment is at least three days old.**

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**Watch for the Intervene Symbol**

Frequently viewing TOPS Reports and checking in with students will help you reach students before they really start to struggle. The software also has a backup plan: it stops giving work on an objective if a student completes the maximum number of problems while practicing, testing or reviewing without advancing to the next stage. If this happens, you’ll see an intervene symbol in the Assignment Book and on certain reports. The chart below summarizes the advancement criteria:

<table>
<thead>
<tr>
<th>Practice</th>
<th>Test</th>
<th>Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 out of last 6 correct</td>
<td>4 out of last 5 correct</td>
<td>3 out of last 4 correct</td>
</tr>
<tr>
<td><strong>Ready to test</strong></td>
<td><strong>Mastered</strong></td>
<td><strong>Reviewed</strong></td>
</tr>
<tr>
<td>18 problems maximum</td>
<td>10 problems maximum</td>
<td>8 problems maximum</td>
</tr>
</tbody>
</table>

In order for a student to work again with an *intervene* objective, you must clear the intervene symbol from the software: go to the Assignment Book, click the student’s Intervene link in the Action column, and generate an assignment that includes the objective. After meeting with the student for reteaching, use the assignment to give the student another chance to work with the objective. (If more than one student has an intervene symbol, you can use the link at the top of the table to address all symbols at once; the appendix includes more instructions for working with the intervene symbol.)
• **The intervene symbol during practice.** If an objective is flagged for intervention while a student is working on a practice assignment or an exercise, generate an exercise to clear the intervene symbol. Also generate the objective’s sample problems to support reteaching the objective to the student. Work the first sample problem together and have the student work the second one out loud to you. If the student is on track, she can complete the exercise independently. If successful with the exercise, the student will become ready to test on the objective. If not, the objective will revert to *ready to work*, indicating that the student needs more practice with the objective; provide more instruction and generate another exercise for the student.

• **The intervene symbol during testing or reviewing.** If an objective is flagged for intervention while a student is testing or reviewing, meet with the student and correct the errors together. If you feel the student understands the material, generate a diagnostic test to clear the intervene symbol. If successful with the diagnostic test, the student will master the objective. If not, the objective will revert to *ready to work*, indicating that the student needs to keep working on the objective; provide more instruction and generate another diagnostic test for the student.

**Use the Status of the Class Report to Plan Every Day**

The Status of the Class Report helps you monitor practice, plan instruction, and identify students who need extra help while working on objectives. It takes information from the Assignment Book, consolidates it, and presents it in an easy-to-read format so you can quickly determine next steps. We recommend that you generate and view this report daily when planning for your classes. In addition, you might place it on a clipboard and have it in hand as you touch base with students during the math period. View the sample report on the next page as we go through each of its sections. (A full-page example is in the appendix.)

• **Assignment Status.** Skim the Action Needed column. Check if students need objectives assigned or work generated. Next, look at the Objectives Ready to Test column. Generally, if a student is ready to take a test on three to five objectives, you will generate a regular test. Use your judgment as to whether any students should test on only one or two objectives at a time. Finally, look at the dates of when assignments were generated. Were any generated more than a few days ago? If so, check with the student to find out why the work hasn’t been scored.

• **Intervention Needed.** These students have one or more objectives flagged with an intervene symbol in the software. Plan on meeting with these students to provide additional instruction. Check the column that lists objectives by number and name. Are any students having trouble with the same or similar objectives? Can you pull them together for small-group instruction? Which students must you meet with individually? Generate assignments to address the intervene symbols in the software, and plan on getting to all of the students listed here the next time you see them. Use the assignments to give students another chance to work with an objective after you provide additional instruction.

• **Objectives Causing Difficulties.** This category alerts you to opportunities for small-group instruction: if three or more students are struggling with a particular objective, you will see the objective and the student names listed here. (You may be able to select a different minimum number of students—2, 4, or 5—depending on your subscription to Accelerated Math.)
• **Outstanding Assignments.** Check the dates to see if you need to follow up with any students. Consider using this report, which includes the form numbers of outstanding assignments, to help students keep track of and prioritize their work.

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### How Many Outstanding Assignments Can a Student Have at Once?

Students can only have one outstanding assignment, per assignment type, at a time. This is at the class level. If you create groups in an Assignment Book, however, then the class restriction extends to each group. That means a student in a group could have, for example, two practice assignments at the same time: one for the class and one for the group. (Learn more about groups in Chapter 5.)

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### Status of the Class Report

This report provides an overview of students’ current work and helps you plan next steps.
Pay Attention to Pacing

When practice is individualized, students will inevitably begin to forge their own paths. Some will become ready to test on objectives quickly, while others will need to spend more time practicing. Still others won’t be able to advance without your help. Try to keep a handle on student progress by checking TOPS Reports, the Assignment Book, and the Status of the Class Report. Also keep in mind the following guidelines:

- **Assign objectives thoughtfully.** For example, if you plan on teaching a group of objectives together, assign them all at once. If you foresee students will have problems with a set of objectives, assign them one by one. Keep in mind that Accelerated Math will include on a practice assignment any objective you assign and will ignore any objective you don’t assign. Don’t assign an entire library at once or students will feel overwhelmed and discouraged when they attempt to tackle problems on objectives they haven’t learned. On the other hand, don’t neglect to assign objectives; if you do, students will be idle and their progress will slow. You may find that more able or confident students can sometimes work ahead, teaching themselves with materials that you provide.

- **Pay attention to individual needs.** If students are beginning to fall behind, meet with them to assess the situation and provide reteaching if necessary. If students are advancing quickly, consider assigning advanced but related objectives and forming small study groups, if possible.

- **Use exercises to keep students together for specific objectives.** We’ve discussed how you can generate exercises for the whole class, a small group, or an individual student to provide additional practice on an objective after reteaching. You might also generate exercises if students are starting to spread out on their practice assignments, and you want them all to work with an objective directly after you teach it—when it’s fresh. For this purpose, consider including four or fewer problems per objective on the exercise: this will help ensure that students work with the objective again later on their individualized practice assignments. (For a practice objective, students must answer five out of the last six problems correctly for it to become ready to test; those six problems can be from practice assignments, exercises, or a combination of the two.)
• **Develop a daily planning routine.** Base the routine around data to keep a handle on what you need to reteach, who needs help, and who can move forward. Here is one suggestion:
  
  1. **Check who needs work generated.** Review the Status of the Class Report and generate assignments as needed. If students will be using printed assignments, put them in students’ folders before class begins, or plan to distribute them at the beginning of the next math period.
  
  2. **Plan your instruction.** For whole-class instruction, assign the relevant objective and decide what materials you will use to teach your lesson. If students are working on many different objectives, check the Status of the Class Report to see who needs to have objectives assigned. Identify who is ready for instruction on a new objective—a small group, individuals? Generate and assemble any materials you may need.
  
  3. **Plan how to help students who are struggling.** Take another look at the Status of the Class Report. Do any students have objectives flagged for intervention? Are any students having difficulty with the same objectives? How will you help these students? Do you need to meet with them yourself? Could you pair them with another student?
  
  4. **Finally, make the plan for the day apparent to students.** Use the board or another visual device to communicate whether you will be starting out with a lesson and, if so, with whom.

As you gain more experience with Accelerated Math, you’ll find yourself adjusting your instructional schedule to suit the objective or objectives you are teaching. Instead of teaching a short lesson each day followed immediately by practice, you might devote an entire period to either one challenging objective or a number of related objectives. In that case, students would use the next day for practice. Alternatively, you might spend the period teaching short lessons to two or three separate groups.

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**SUMMARY**

### GETTING STARTED

- Consider using a practice run to ease into your Accelerated Math implementation, having students work with familiar objectives while you teach routines and try out basic software tasks.
- Start differentiating instruction and practice when students are ready to tackle new objectives that you teach in class.
- Guide students through the cycle of practice, test, and review.
- Check daily performance with TOPS Reports and the Assignment Book.
- Take action when an intervene symbol prevents a student from working with an objective.
- View the Status of the Class Report daily to monitor practice, plan instruction, and identify students who need extra help with certain objectives.
- Pay attention to pacing.
Making Adjustments

Take a step back and evaluate your implementation so far. Are things working well? Are students meeting with success on their assignments? Perhaps you are ready to enhance student practice or fine-tune classroom routines. This chapter explores topics such as these to help you make adjustments to your ongoing implementation of Accelerated Math. We begin by looking at a report (called the Diagnostic Report) that can help you monitor overall progress and identify students who are struggling. We then discuss how to adjust practice, refine routines, and extend practice outside the classroom. We conclude with some suggestions for how to make students’ success visible, both to themselves and to others.

Monitor Overall Progress with the Diagnostic Report

The Diagnostic Report helps you gauge the quantity and quality of students’ Accelerated Math practice. It includes the following information for a specified reporting period:

- The number of objectives mastered
- The average percent correct for each of the four assignment types (practice assignment, exercise, regular test, and diagnostic test), as well as the average percent correct for review objectives

(See an example of the report on the next page; a full-page example is in the appendix.)

We recommend that you generate and view the Diagnostic Report on a weekly basis to monitor students’ overall progress in Accelerated Math. The average-percent-correct data on the report can alert you to students who are struggling: if students’ averages fall below 75 percent on practice assignments, 85 percent on regular tests, or 80 percent on review, they are unlikely to be mastering many objectives or retaining understanding of the concepts. The Diagnostic Report uses codes to point out students who are not meeting the recommended averages: P for practice, T for regular test, and R for review. The report also includes two additional diagnostic codes: the intervene symbol, for students who have one or more objectives flagged for intervention, and M, for students who are well below the class median of objectives mastered.

Students with a “P” Code

If students struggle with practice assignments, then they’re having difficulty with some of the concepts, principles, and procedures associated with the objectives they are working on. Be sure to support these students, perhaps by remediating instruction; we provide specific suggestions for helping students who are falling behind in the next section.
Adjust Practice

Reviewing data helps you see when and how you need to adjust math practice. Even if the majority of your class is mastering objectives at a steady pace, a few students will inevitably advance more slowly than others. At the same time, you might have several students who are capable of working ahead.

When students fall behind

You have a number of options for helping students who fall behind the rest of the class:

- **Pair up students.** Even when students are working on practice assignments for the same objective, the software will give them different problems. Assign a buddy to every student—a peer with whom they can consult when they have trouble with a problem. Some teachers identify pairs of students to help each other with specific objectives (see Chapter 3 to learn more).

- **Review TOPS Reports quickly.** As you become experienced with Accelerated Math, review TOPS Reports as quickly as you can—within a few minutes of students handing them in—rather than waiting until the end of the period. See if you can provide immediate one-on-one instruction or quick acknowledgment of success. This cuts down waiting time, and students can move forward faster.

- **Meet with small groups.** If several students are having trouble with the same objective, pull them together for a short lesson. Work a few problems together. Then generate an exercise for the objective and have students complete it on their own.
• **Emphasize showing work.** Be consistent with the requirement that students show you their work, not just choose an answer. Analyze the work to identify what students are doing wrong and help them with those specific issues.

• **Use worked examples as teaching tools.** Worked examples can be projected, shared with students on-screen, or generated to support one-on-one or small-group instruction. Elaborate on the approach and steps included in the example, and explain how they lead to the correct answer. If applicable, ask students if they know another way to solve the problem or possibly demonstrate another method. (See Chapter 3 to learn how to access worked examples in the software; students and parents can also view worked examples in Renaissance Home Connect, discussed later in this chapter.)

• **Identify skill gaps.** Diagnose difficulties with an objective by having a student work on related lower-level skills. You can use the Core Progress learning progression for math—available to you in the software—to help identify prerequisite skills for certain objectives and plan instruction (see the sidebar for more information). Rather than adding supplemental objectives to an objective list, consider using sample problems for additional practice on the spot. (See Chapter 3 to learn how to access sample problems in the software; you can also view or print sample problems from Core Progress.)

• **Build computational fluency.** Are students fluent with basic math facts? If not, their lack of fluency may be slowing them down and preventing them from mastering objectives on pace with their peers. Students must know the answers to basic facts—without having to think about them—so they can free up their working memory for more complex problem solving. Devote some time during the math period to helping students develop, or become prepared to develop, automaticity with math facts. (See the next page for information about MathFacts in a Flash—a Renaissance Learning software program that helps provide and manage effective practice with math facts.)

• **Provide additional practice at the student’s level.** If a student continues to struggle even with the above additional supports, consider having the student practice objectives at a lower level. Either add the objectives to your class objective list, or create a group in your Assignment Book and assign it an objective list that includes the lower-level objectives. (See pages 66–67 for more information about groups in Accelerated Math.)
MathFacts in a Flash

MathFacts in a Flash provides students at all levels with personalized practice of facts related to addition, subtraction, multiplication, division, fractions, decimals, and percents. It offers students the practice necessary to develop computational fluency and prepare for algebra, moving them away from using strategies for figuring out or deriving answers and into timed automaticity.

Timed tests at appropriate skill levels accurately measure students’ practice and mastery, with feedback provided both on-screen and via a variety of detailed reports. Feedback motivates students, and it helps teachers inform instruction and monitor student progress throughout the year toward research-based, grade-level benchmarks. Students can also practice math facts on Renaissance Responders and NEO 2s, or through Renaissance Home Connect. For more information about MathFacts in a Flash, visit our website at www.renlearn.com.

Of course, some students may need to develop prerequisite skills before practicing for fluency in MathFacts in a Flash at any level. To support this process, we offer two guides written by mathematics education expert Dr. Kenneth E. Vos: Numeracy Development and Intervention Guide and Fractions, Decimals, and Percents Development and Intervention Guide. They provide guidance on how to develop number sense and a complete understanding of fraction numbers by using various protocols to diagnose errors, address them, and evaluate results. Both guides are available for purchase on our website at www.renlearn.com.

Letting students get ahead

Just as some students will struggle, others will quickly meet with success. Most teachers find that these students can usually move forward, either on their own or working collaboratively. They may need a little instruction from you, or they may be able to teach themselves by drawing upon their textbook or other resources that you provide. As with struggling students, you can generate exercises and use them to teach brief power lessons to groups that are working ahead of the class. You can also set up a group in your Assignment Book so that these students can work with an advanced set of objectives in addition to working with the class objective list. (See pages 66–67 for more information about groups in Accelerated Math.)

Refine Routines

Spend some time evaluating the routines in your classroom. Consider the following:

- Are students organized and do they have what they need for math practice?
- Are students able to complete assignments, score them, check results, and keep working?
- Do the resources in the classroom help students correct missed problems? If not, what alternate or additional resources can you provide?
- Do you spend a lot of time directing students during math practice? If so, what additional supports can help students become more independent?
- Do you need to revise posted procedures? Should you create any new ones?
- Does your classroom setup facilitate student collaboration or meetings with small groups and individuals? If not, how can you rearrange things to better support practice and instruction?
Be sure to document things that are going well: you can share them with your colleagues and also create a starting point for the next school year. If a routine isn’t fulfilling its intended purpose, try to determine the root of the problem before changing it. If students are simply forgetting what to do, reteach the routine and give students time to practice. You might also post a visual aid to remind them of the steps going forward. For example, suppose you’ve asked students to rework missed problems but you find they rarely do. You may need to add more structure: perhaps establish a protocol to help students consult worked examples, make notes on the steps, and then rework the problem or jot down notes about what they’re unsure of. Other times, you may decide to get rid of a routine altogether—perhaps if it’s hindering math practice or is simply no longer necessary.
Getting Results with Accelerated Math Live

**Using Groups in Accelerated Math**

Groups help you manage a wide range of objectives within one Assignment Book. Some teachers create groups in their Assignment Book during the course of the school year when students start falling behind—or begin to move ahead—and need to practice objectives in addition to those at the class level. Other teachers create groups at the beginning of the school year to support fully differentiated practice. In the software, you will see Groups in the Assignment Book on the left.

**Things to Know about Groups**

- Groups simply let you use several objective lists within one class Assignment Book; they will not necessarily relate to any student groupings you use for instruction.
- Any groups you create are in addition to the class (a “group” by default). Students who are part of a group are still part of the class as well, and they can be doing work in both places.
- Create a group for each objective list you plan to use with your students that is in addition to the class objective list. Add a student to a group if you want to make assignments for the student from the group’s objective list.
- Each group name in a class must be unique, but you can use the same group name within different class Assignment Books. Keep in mind that students working online or in Renaissance Home Connect can see the name of any group they are in. (See pages 68–69 for more information about Renaissance Home Connect.)
- Students can have one outstanding assignment, per assignment type, per group.
- When the status of an objective changes for a student in one place, it changes everywhere. For example, if a student masters an objective in a group, and that objective is also being used for the class, the objective is shown as mastered in the class, too. For this reason, we recommend you assign unique objective lists to groups, or at least make sure they have little overlap with the class and with one another. This will help you more easily keep track of how a student is performing.
- Removing students from groups or deleting groups altogether will prevent you from seeing specific results of the group work on reports. For example, if a student masters an objective in a group, and you then remove the student from the group, the mastered objective will no longer be included on reports. (The student’s work on the objective, however, will not be lost. If the objective is included on another objective list assigned to the student, the status of the objective based on past work will be reflected there.) If you do choose to remove a student from a group—or delete a group altogether—keep in mind that outstanding assignments generated for the group can no longer be scored.
- Work that students do in groups counts toward goals in Accelerated Math and is reflected on team reports. See Chapter 6 for more information about goals in Accelerated Math.

**Working with Groups**

To send assignments to students from a group, first create the group in your Assignment Book and assign an objective list to it (just like you do with a class). You can then select a group to work with in the Assignment Book using the Group drop-down list. Choose Class Overview from the list to see student work for all groups at once, including the class. Certain reports, like the Status of the Class Report, allow you to report on group data separately, while other reports, like the Goal History Report, automatically roll up data from groups with data from the class. (See the appendix for common software tasks related to groups; the software manual includes more detailed information.)
Sample Frameworks for Using Groups
Below we show how two teachers use groups in the Accelerated Math software to manage differentiated practice.

Felicia Gregg, a sixth-grade teacher, set up groups in her Assignment Book mid-year to provide some students with remediation or enrichment in addition to their work at the class level.

Gabriel Lopez, a high-school teacher, set up groups in his Assignment Book at the beginning of the school year to support the fully differentiated practice that drives his extra class. He used a class objective list during a practice run so all students could work with the same lower-level objectives while learning new routines.
Extend Practice outside the Classroom

To help students make gains in mastering objectives, think about extending practice outside the classroom. For example, some teachers use Accelerated Math assignments as homework, sending home unfinished practice assignments or generating a homework exercise for the whole class. Students come to class the next day, score their assignments, and know right away if they were successful with the objectives. The teacher can check results and address any issues with the whole class before moving on to new material.

Take advantage of Renaissance Home Connect. Renaissance Home Connect is a great tool for extending student math practice outside of school and for involving parents in their child’s work. From any Internet-connected computer, students can log in to Renaissance Home Connect and monitor their Accelerated Math progress, access worked examples and a math glossary, and—if a preference is set—score practice assignments and exercises by filling in an on-screen scan card. If students have online assignments assigned to them, they can open these assignments and work on them at home. Parents can also monitor their child’s progress through Renaissance Home Connect. They can even choose to have results e-mailed to them upon their child’s completion of an Accelerated Math test at school. Renaissance Home Connect can be viewed in English or Spanish.
After a district administrator sets up Renaissance Home Connect and activates it for your school, you and your students can begin using the program. Go to the Renaissance Home Connect tab in Renaissance Place to find resources to help you get started, including general information about the program and Informational Letters (under Reports). Print the Informational Letters—available in English and Spanish—to generate a letter for each student that includes a web address for Renaissance Home Connect and personalized login information. Have students take the letter home to share with their parents.

Be sure to explain how to use Renaissance Home Connect to students, perhaps attaching a cover letter to the Informational Letter so parents also know your guidelines. For example, you might decide to let students score certain assignments at home. (Keep in mind that only practice assignments and exercises can be scored in Renaissance Home Connect; tests must be scored at school.) Accelerated Math treats work scored through Renaissance Home Connect like work scored at school: students receive TOPS Reports and possibly next practice assignments, and the results are entered in your Assignment Book. Even if students won’t score assignments through Renaissance Home Connect, they and their parents can still track progress, view worked examples, and access the math glossary from home. (Check the Renaissance Home Connect scoring preference in the software to ensure that it matches your scoring preference; see the appendix for instructions.)

Make Success Visible

Students become motivated when they can see their progress. Help them keep track of the objectives they master, and establish a routine in which you recognize their success. Here are a few ideas:

- Give students a certificate to congratulate them for the number of objectives they mastered. The appendix includes instructions for printing a certificate from the software.
- Have students maintain a graph on which they keep track of the number of objectives they master.
- Give students a copy of the Objective List Report to keep in their math folders. Students can check off or highlight objectives as they master them.
- At the end of each month, acknowledge students who have averaged at least 75 percent correct on practice assignments and 85 percent correct on regular tests. Use the Diagnostic Report to find this information; see an example earlier in this chapter.
- In the next chapter, we explain how setting goals in the software can help you and your students track and acknowledge success.
## SUMMARY

### MAKING ADJUSTMENTS

- Review the Diagnostic Report weekly to check overall progress and identify students who may need extra help.
- Adjust math practice when students get behind or when you want to let students get ahead.
- Consider creating groups in your Assignment Book if any students need to work with more than one objective list.
- Evaluate classroom routines and refine them as necessary.
- Extend practice outside the classroom, perhaps by taking advantage of Renaissance Home Connect.
- Make success visible.
Setting Goals

Goals are a powerful motivator. We set them for ourselves when we want to achieve something meaningful but difficult, like buying a new house or achieving a weight-loss goal. Moreover, when our goals are both verbal and visible, we are more apt to meet them. For example, sharing progress with friends and keeping a weight-loss chart on the refrigerator can provide support and structure when working toward a weight-loss goal.

In this chapter, we explain how to harness the power of goals—and make them verbal and visible—to drive your students’ math practice. We begin by listing considerations for setting goals with students. We then explain how to enter goals in the software and use reports to monitor them. We also discuss how Accelerated Math teams can boost student motivation for reaching goals. We conclude by offering some advice for connecting goals with grades.

Considerations for Setting Goals

You might already be setting goals with your students to influence a variety of behaviors, like spending time on task or helping peers. Here, we talk specifically about goals related to Accelerated Math work. You can set individualized goals in the software, per marking period, for two outcomes of Accelerated Math practice:

- The number of objectives mastered
- The average percent correct for regular tests

Consider the following when setting goals in Accelerated Math with students:

- Keep in mind the general guidelines. We first discussed our general guidelines for student math practice in Chapter 2. As a rule of thumb, if students have at least 40 minutes of practice with Accelerated Math per day (or the equivalent), they should master a minimum of four objectives per week to make substantial progress (or two objectives per week in the first and second grades). If your students have less than 40 minutes of daily Accelerated Math practice (or the equivalent), you may need to adjust these numbers accordingly. Also consider how many objectives you plan to teach each marking period when determining an appropriate quantity goal for your students.

  We also recommend that students maintain an average percent correct of at least 85 on regular tests and 75 on practice assignments. In fact, for regular tests, you must enter an average-percent-correct goal of at least 85 in the software. Goals for practice assignments are not entered in the software, but they can be monitored using a Diagnostic Report (see an example in Chapter 5).

- Choose appropriate goals for each student. What is the student’s skill level? What about the student’s personality? Does she seek challenge? Does he need to experience success? To build students’ confidence, it’s important to set individualized goals at attainable levels.

- Formally set goals with students. Meet with students individually to discuss goals and get buy-in. Also consider recording the goals at this time, using a document like the Student Math Plan. (See the next page for an example. Addi-
tionally, the appendix includes several reproducible Student Math Plans; you can also find examples under Resources in the software.) Going forward, periodically meet with students one-on-one to discuss their performance in relation to the plan. Add comments as needed to encourage or congratulate students. If using a weekly version of the Student Math Plan—as shown below—help students complete the tally section each week with the help of a Diagnostic Report. If a student is absent for several days, insert an X for that week and don’t count it toward the total.

### Student Math Plan – 9 Weeks

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student:</strong></td>
<td><strong>Grade/Class:</strong></td>
</tr>
<tr>
<td><strong>Teacher:</strong></td>
<td><strong>Goal Period Begin Date:</strong></td>
</tr>
<tr>
<td><strong>Goal Period End Date:</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1. Number of Objectives Mastered</strong></th>
<th><strong>2. Minimum Average Test % Correct</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal: _____</td>
<td>Goal: _____</td>
</tr>
<tr>
<td>Suggested Goal: 4 obj./week-Grades 3 &amp; up</td>
<td>Suggested Goal: 85% average on regular</td>
</tr>
<tr>
<td>Actual: _____</td>
<td>Actual: _____</td>
</tr>
<tr>
<td>2 obj./week-Grades 1 &amp; 2</td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

**Weekly Tally (enter number of objectives):**

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____
    7. ____ 8. ____ 9. ____

**Weekly Tally (enter average percent):**

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____
    7. ____ 8. ____ 9. ____

<table>
<thead>
<tr>
<th><strong>3. Minimum Average Practice % Correct</strong></th>
<th><strong>4. Other Goals</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal: _____</td>
<td>Goal: _____</td>
</tr>
<tr>
<td>Suggested Goal: 75% average on practices</td>
<td></td>
</tr>
<tr>
<td>Actual: _____</td>
<td>Actual: _____</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

**Weekly Tally (enter average percent):**

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____
    7. ____ 8. ____ 9. ____

**Weekly Tally (enter if goal met):**

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____
    7. ____ 8. ____ 9. ____

**Student Signature**

**Teacher Signature**

**Parent Signature**

---

**Signing a Contract**

Think of the Student Math Plan as a contract that requires a signature from everyone: you, the student, and a parent. The signed contract shows the plan is truly a team effort to meet the goals, and also confirms that everyone is on board with what is expected. At the beginning of the marking period, send the completed form (signed by you and the student) home with a cover letter explaining each category to parents. (Some teachers also explain how each category contributes to an overall grade; we further discuss grades and Accelerated Math later in this chapter.) Ask parents to sign the plan and return it to you. Use this version of the form to document the student’s actual performance.
Setting Goals

- **Start out slowly and build over time.** Think about first establishing and monitoring a goal with students outside of the software—perhaps maintaining an average of at least 75 percent correct on practice assignments. As students meet this goal, focus on the next one: an average of at least 85 percent correct on regular tests. Then, after everyone is on board with practice assignments and tests, enter the average-percent-correct goal for tests in the software. (We explain how in the next section.) Consider also setting a goal for number of objectives mastered at this time, especially if students are meeting with success on their tests. This plan allows you to slowly incorporate goal-setting as students are ready; it also puts the focus on quality first, which will naturally support students in mastering objectives.

- **Consider how you will monitor goals.** As we mentioned previously, you can use the Diagnostic Report to informally monitor goals before you enter them in the software. Later in this chapter, we discuss how other reports can help you monitor goals once they are entered in the software.

You can also have students self-monitor progress. For gauging success with average-percent-correct goals, students can refer to the Overall Progress summary at the bottom of their TOPS Reports. (See an example in Chapter 1.) Although the summary might include results from exercises or diagnostic tests (if indicated on the report), it can still give students a general idea of how they are doing. For objective mastery, students can keep an Accelerated Math Student Goal Chart in their math folder and update it when they score a test. (See the appendix for a reproducible form.) Alternatively, students could highlight objectives as they master them on a copy of an Objective List Report that you provide.

**Entering Goals in the Software**

Entering goals in the software enables Accelerated Math to track them for you and your students. To enter goals, first click Teams & Goals under the Accelerated Math tab in Renaissance Place. Then click Manage Goals under Goals on the left. Select a class and marking period, enter goals for each student, and click Save. Keep in mind that a district or school administrator must define the school’s marking periods before you can enter goals in the software. (The appendix includes instructions for working with goals; see the software manual for additional information.)
Monitoring Goals

After you enter goals in the software, monitor students’ progress toward them and make any necessary adjustments.

**Monitor progress.** A couple of reports can help you and your students monitor goals:

- **TOPS Report.** TOPS Reports include goal information in the Objective Summary at the bottom of the report. (See an example in Chapter 1.) The summary lists the objectives-mastered goal for the marking period, how many objectives the student has mastered so far, and how that number translates to a percentage of the goal. As we mentioned previously, TOPS Reports also include average-percent-correct data, which can help you and students easily see if they’re on track with the average-percent-correct goal for tests. Keep in mind, however, that this information may include results from diagnostic tests (if indicated on the report). To view a student’s average-percent-correct data for only regular tests, view the Diagnostic Report or—as we discuss next—the Goal History Report.

- **Goal History Report.** The Goal History Report lists students’ goals and actual performance for each marking period. (See an example on the next page; the appendix includes a full-page example.) For each student, you can view the goals you entered in the software, the student’s actual performance data for those goals, and the student’s progress toward the objectives-mastered goal. The report also lists each student’s average percent correct for practice, indicating whether the average includes results from exercises. At the end of the report, you’ll find a class summary that averages data, as well as a report summary that consolidates the data if more than one class was included on the report.

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How will students see their progress if they are working online?

If students are working online, they will receive an on-screen assignment summary after completing each assignment. In addition, the Progress page will display their progress toward marking-period goals for average percent correct and number of objectives mastered. See the supplement for more information on these reporting features.
View the Goal History Report at least twice per marking period after you enter goals in the software: mid-marking period to gauge if students are on track to meet their goals, and at the end of the marking period to see who met with success. You may decide to view the report more frequently, especially if students are new to goals and are still learning to monitor their own progress.
Make necessary adjustments. Confer regularly with students about their goals. If some students are lagging and becoming discouraged, adjust goals in the software as necessary to maintain motivation. If other students are easily exceeding goals and becoming bored, consider raising the stakes: challenge them to reach 125 percent of their goals for number of objectives mastered. Monitor progress with TOPS Reports or the Goal History Report. If students achieve 125 percent, move on to 150 percent, and so on. (Resist raising the goal for number of objectives mastered in the software, as students will then see a decrease in percent of goal achieved on their TOPS Reports. This may have a demotivating effect.)

Pay attention to your pace in teaching objectives during the marking period. If you need to adjust the number of objectives you teach, also adjust goals in the software and explain this to students. Some teachers dedicate more time to Accelerated Math work as the end of a marking period nears if there have been several disruptions during the regular school schedule. They might also use diagnostic tests during this time, if appropriate, to help students directly master objectives and achieve goals.

At the end of each marking period, meet with students to assess progress toward goals and set goals for the next marking period. If using a Student Math Plan, fill it out for the next marking period when meeting with students. (Also remember to update the plan going forward if you make any adjustments to student goals during the marking period.)

Using Teams

Create teams in the software to unite students in their efforts to achieve individual goals. Track team progress on two reports:

- **Team Standings Chart.** This chart focuses on quantity: it compares teams’ progress toward goals for number of objectives mastered. Each percentage shown on the graph

Discouraged Students

Sometimes a side effect of setting goals is students becoming discouraged if they can’t meet them. Take action immediately if you see this happening. First meet with the student to ask about the lack of progress and try to determine the cause. If the issue is related to not understanding the math, take steps to prevent the student from falling further behind. (We offer specific suggestions in Chapter 5.) Also adjust the student’s goal for number of objectives mastered, if necessary, to make it attainable. When the student is ready to tackle objectives again, consider generating a diagnostic test. Quickly mastering objectives can boost students’ motivation and put them back on track to reach their goals.

Team Sets

Each team is a part of a “team set” in Renaissance Place. A team set acts as an umbrella for teams whose progress you want to compare. For example, a team set could include teams for the same teacher (“Mr. Cohen’s Mathletes”), grade (“Grade 3 Math Tournament”), or subject (“Geometry Competitors”). Team sets have an owner, who has full control over the structure of the team set. Teachers can only change team sets they own, school administrators can change team sets in the school, and district administrators can change team sets in any school.
Setting Goals

is the number of objectives mastered by a team divided by the number of objectives the team aims to master. To prevent strong members from having too great of an effect on the standings, the number of mastered objectives counted for each team member is limited to the member’s individual goal. (So, for example, if a student’s goal for the marking period is to master 34 objectives and she masters 44, only 34 objectives will count toward the team goal.) Because the chart includes team names only—and not student names—some teachers post it in the room or hall to promote competition between students or classes. Seeing who’s ahead each week can build excitement.

- **Team Status Report.** Use this report to check how well each member of a team is progressing toward individual goals or to view averages for each team. Keep in mind that a team can’t meet its goal unless each team member meets his individual goals. Support students in helping their teammates so they can ensure that everyone is successful.
To create teams, start by clicking Teams & Goals under the Accelerated Math tab, and then click Add Team Set under Teams on the left. Enter a Team Set name and click Done. You will then be able to add teams and team members under the team set.

(The appendix includes instructions for working with teams; see the software manual for additional instructions.)

If you plan to use teams with your students, we suggest the following guidelines:

- **Form mixed-ability teams.** Even though students work toward individual goals on their teams, mixed-ability groupings might be useful if team members will help one another with practice assignments and exercises.

- **Start out on the right foot.** Teams should inspire all students to do their best, not pit individual students against one another. Discuss teams with students before introducing them in Accelerated Math. Make sure everyone is on the same page as to how to be a team member and what it means to compete.

- **Use teams later in the school year.** When motivation starts to lag, introduce teams as a way to spice things up. This also gives students time to adjust to Accelerated Math if they are new to the program.

- **Involve your colleagues.** Consider using teams to spark competition with other math teachers in your school. This unifies the efforts of the whole class, and gives you an opportunity to model how to be a strong competitor and a good sport.

### One Teacher’s Plan for Introducing Math Goals

<table>
<thead>
<tr>
<th>Marking Period 1</th>
<th>Marking Period 2</th>
<th>Marking Period 3</th>
<th>Marking Period 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not set goals</td>
<td>Enters individual goals in the software</td>
<td>Uses teams for in-class competitions</td>
<td>Uses teams for competing with other grade-level math classes</td>
</tr>
<tr>
<td></td>
<td>Monitors progress with TOPS Reports and the Goal History Report</td>
<td></td>
<td>Monitors progress with team reports</td>
</tr>
</tbody>
</table>

### Grades and Accelerated Math

Determining grading policy is ultimately the decision of a school or district. If your school or district decides to factor Accelerated Math work into grades, we encourage you to keep in mind the following considerations:

- If several teachers at your school are using Accelerated Math in a similar manner, decide on a grading formula together. At a minimum, teachers using Accelerated Math within a grade level or subject area should be consistent with their grading policy. Some schools or districts even have a school- or district-wide grading formula.

- To determine how Accelerated Math work translates into a specific grade—A, B, C, etc.—or how it contributes to an overall math grade, take into account the guidelines of your school or district. The goal is to design a grading scale that motivates all students to work to the best of their ability. Be sure students understand the grading scale and are able to determine their progress toward specific grades during each marking period.
• Consider all aspects of students’ math work. Most teachers set two goals for Accelerated Math work: number of objectives mastered and an average percent correct of at least 85 on regular tests. They may weight each factor differently and also include other Accelerated Math work as part of the grade. A Student Math Plan—discussed earlier in this chapter—can help establish and document progress toward different aspects of an Accelerated Math grade.

• Meet with students periodically to discuss grades and make a plan if they are not on track for success.

Let’s see how a couple of teachers give grades by weighting different aspects of math practice and looking at students’ progress toward goals.

• Jennifer Evans decides to equally weight two main aspects of students’ math practice: percent of objectives mastered and average-percent-correct for regular tests. Each is worth 45 percent. Practice percent correct, which includes a student’s attempts at becoming ready to test, is worth 10 percent. Looking at the Goal History Report on page 75, we see that—at the end of the second quarter—Robert Schaeffer has reached 103 percent of his objectives-mastered goal. His average-percent-correct is 85 for regular tests, and 79 for practice. Ms. Evans calculates Robert’s grade in this way:

Percent of objectives-mastered goal: \(103 \times 0.45 = 46.4\)
Regular test percent correct: \(85 \times 0.45 = 38.3\)
Practice percent correct: \(79 \times 0.10 = 7.9\)

\[\text{Total (Accelerated Math grade): } 92.6\]

Ms. Evans might have chosen to equally weight the three pieces of data reported on the Goal History Report. Or she could have focused solely on the goals she entered in the software—thereby excluding practice percent correct—when calculating grades:

Percent of objectives-mastered goal: \(103 \times 0.5 = 51.5\)
Regular test percent correct: \(85 \times 0.5 = 42.5\)

\[\text{Total (Accelerated Math grade): } 94.0\]

• Charles Lee counts Accelerated Math work as 30 percent of students’ overall math grades. Half of this percentage comes from successfully completing an objectives-mastered goal, and the other half is an average of test and review average-percent-correct scores. Mr. Lee uses both the Goal History Report and the Diagnostic Report to find this information. He also puts supports in place to help students meet their goals: he has students aim for 80s and 90s with practice, test, and review; and he closely ties Accelerated Math practice to his instruction.

Keep in mind that some teachers choose to factor in progress toward class-wide goals—such as scoring homework at the start of class, keeping detailed notes, and staying on task during practice time—when calculating grades for Accelerated Math.
SUMMARY

SETTING GOALS

- When set thoughtfully, goals help students work to the best of their ability and become invested in their own learning.
- Enter goals in the software to monitor two outcomes of Accelerated Math practice: number of objectives mastered and average percent correct for regular tests.
- Monitor goals using TOPS Reports and the Goal History Report.
- Teams enable students to work collectively toward individual goals; view team progress on the Team Standings Chart and the Team Status Report.
- If you give grades for Accelerated Math work, be sure to explain your grading scale to students and parents and make sure students are able to measure progress toward specific grades.
Additional Topics
The RTI Connection

In a Response to Intervention (RTI) framework, Accelerated Math serves two functions. It facilitates differentiated math practice, which boosts achievement for all students in all tiers. At the same time, it provides a stream of data that helps you evaluate your instruction, identify student needs early, and intervene quickly and effectively.

In this chapter, we talk about the connections between Accelerated Math and RTI. To implement Accelerated Math with fidelity, be sure to read the rest of this book, which explains best practices in more depth. To learn more about RTI in general and how Renaissance Learning products support such a framework, please see our website at www.renlearn.com.

A Math Practice Program for All Tiers

Here’s how Accelerated Math looks in each tier.

In **Tier 1**, students are largely served by the core instructional program. When you add Accelerated Math to this tier, students also spend a substantial amount of time engaged in math practice, which reinforces and advances their skills. Accelerated Math helps you differentiate this practice by taking student performance into consideration when generating practice assignments: it provides more practice on objectives to students who need it, and advances other students who are ready to test on objectives. The Status of the Class Report helps you pinpoint specific objectives each student is struggling with, and perhaps identify small groups of students who need additional help with the same or similar objectives. TOPS Reports show missed problems (enabling students to correct their work, possibly with help from you or other resources), and they inform students of progress toward personalized goals. When students struggle with an objective while practicing, testing, or reviewing, you provide assistance. If students continue to struggle with grade- or subject-level objectives and fall behind the rest of the class, you analyze the situation and consider intervening at a Tier 2 level.

Students in **Tier 2** (or the middle tiers, if your school has more than three tiers) require additional help—an “intervention”—in addition to core instruction. Accelerated Math is an effective individualized practice program for students in intervention, just as it is for students in Tier 1. However, students in intervention are more likely to receive individualized practice and instruction at a level closer to their base of knowledge, not at grade or subject level. Instruction may primarily take place in small groups or one-on-one, and teachers may have students shift between diagnostic testing and practice modes so they can efficiently target critical skill gaps and help students move ahead. Students may practice lower-level critical skills at the same time and in the same room as other students working at grade or subject level, or they may practice those skills in a.

**A Reliable and Valid Progress-Monitoring Tool**

Accelerated Math is highly rated as a progress monitoring tool by the National Center on Intensive Intervention (NCII) and is the highest rated for progress-monitoring mastery measurement by the National Center on Response to Intervention (NCRTI), with perfect scores in all categories. Accelerated Math has also earned the top rating for Prevention and Intervention at all grade levels by the National Dropout Prevention Center/Network.
Getting Results with Accelerated Math Live

separate intervention class in which other intervention programming takes place, such as Accelerated Math for Intervention.

Accelerated Math helps ensure that students receive the level of intervention they require. For each objective they are practicing, students must meet certain advancement criteria to move on to mastery and review. If a student has difficulty with an objective during any stage—practice, test, or review—the software stops the student from working on the objective, giving you a chance to meet with the student, provide reteaching, and generate another assignment that includes the objective. The software also helps you closely monitor a student’s progress with individual objectives because it can generate multiple alternate forms of assignments at the same level for each objective. Accelerated Math scores assignments immediately, making daily, weekly—even hourly—progress monitoring possible.

Students in Tier 3 (or the upper tier, if your school has more than three tiers) need even more intense intervention. Like students in Tiers 1 and 2, their math achievement is boosted by the individualized nature of Accelerated Math. We recommend that instruction takes place one-on-one in this tier, and that you use a combination of diagnostic testing and practicing to efficiently and effectively target each student’s critical skill gaps. Students in Tier 3 may also benefit from a more robust intervention program, such as Accelerated Math for Intervention.

Use Accelerated Math Data to Assess Your Core Instruction

Accelerated Math lets you know on a daily basis whether or not students can apply your math instruction to independent math practice. Think of it the way you would coaching a sport. For example, if you are a swimming coach, you teach and demonstrate strokes. Then students jump in the pool. You immediately observe them applying what you just taught and decide what to do next. It’s the same with Accelerated Math. After you deliver math instruction, monitor your students’ math practice with Accelerated Math data to see with whom you may need to intervene. You don’t need to wait for an interim assessment to identify struggling students.

Also use the data to evaluate instruction at a class or grade level. Are students, in general, making progress? Are they mastering objectives and maintaining at least the recommended average percentages correct on practice assignments (75 percent),
regular tests (85 percent), and review (80 percent)? Are more and more students easily meeting their goals? If so, you know all is well with your core instruction. If not, consider how you can improve it.

Bring Accelerated Math Data to Data-Team Meetings

Include Accelerated Math data as part of the body of evidence you bring to data-team meetings. Accelerated Math data, along with other classroom data sources, helps you interpret interim assessment results and enriches your understanding of a student's strengths and weaknesses. For example, suppose a STAR Math test shows that Alex is working at a level two years below grade level. The Accelerated Math Diagnostic Report shows that his average percentages correct for practice assignments—55 percent—and regular tests—60 percent—are well below the recommendations. He also has an “M” diagnostic code, indicating that he is not keeping pace with the class median of objectives mastered.

Alex's teacher brings this data to a grade-level team meeting. Staff members interpret the data collaboratively and set specific, measurable goals: By the end of the next eight weeks, Alex will boost his average-percent-correct data to at least 75 percent for practice assignments and 85 percent for regular tests. He will also master 25 objectives, which takes into consideration an upcoming holiday that will reduce the amount of math practice time at school. Alex's teacher meets with Alex and his parents to share and explain these goals. She also reminds Alex and his parents of Renaissance Home Connect and demonstrates how to access the program.

To ensure he meets his goals, Alex's teacher uses an existing routine of “coaches and players” to pair Alex with another student to work on practice assignments. Alex brings his TOPS Reports to the teacher after scoring. If he struggles with an objective, Alex's teacher meets with him immediately to check on the problem. She generates regular tests for Alex when he is ready to test on one or two objectives at a time. This limits the scope of tests, and ensures that Alex will test on an objective soon after he becomes ready to test on it.

Alex's teacher monitors his daily progress with the Status of the Class Report. She sees that his outstanding assignments are always recently generated and he is seldom flagged for intervention by the software. She reviews the Diagnostic Report weekly to check on average-percent-correct data and the total number of objectives mastered during the eight-week time frame. Alex's teacher gives an account of his progress at grade-level team meetings, and after eight weeks, the Diagnostic Report shows his average percentages correct for practice assignments and regular tests have increased to 75 percent and 90 percent, respectively. He has also mastered 28 objectives in the eight-week period. In addition, Alex's latest STAR Math test indicates that his overall math ability has improved.

Use STAR Math Enterprise for Screening and Progress Monitoring

Renaissance Learning's STAR Math Enterprise (also briefly described in Chapter 3) is a computer-based assessment that provides screening, progress-monitoring, and diagnostic data. In addition to reporting a variety of individual scores, it places students in categories—At/Above Benchmark, On Watch, Intervention, and Urgent Intervention—
so you can set instructional priorities and make plans. The software also enables you to set intervention goals, and it charts student progress over time. Finally, STAR Math Enterprise also provides an Instructional Planning Report which can help you plan instruction for students in all tiers. For more information, see *Getting the Most out of STAR Enterprise*, which is available through our website at www.renlearn.com.

**SUMMARY**

**THE RTI CONNECTION**

- Accelerated Math supports an RTI framework by facilitating differentiated practice and providing a stream of data for evaluating instruction, identifying student needs, and intervening quickly.
- Accelerated Math boosts the math achievement of all students in all tiers.
- Include Accelerated Math data as part of the body of evidence you bring to data-team meetings.
Accelerated Math with Primary Students

Thousands of first- and second-grade students use Accelerated Math successfully. We have found, however, that a few modifications make the program run more smoothly for these students. We recommend that you create assignments that are easier for primary students to navigate and that you take a little more time teaching routines such as how to complete and score assignments. Young students also benefit from visual aids that remind them of the steps they need to follow when using the program. Below are a few tips for working with first and second graders.

Change Software Preferences for Printing

For primary students, we encourage you to have students use the online student program rather than paper assignments. If this is not possible, alter the format of the paper assignments so that they are easier for young eyes to read. For example, consider changing the answer placement option to vertical, which means that each answer choice will appear on a separate line. You can also change the font size to large, which is 14 points. (See the appendix for instructions.)

Prepare Tracking Aids for Scan Cards

If your students will scan, create a tool for students to help them bubble answers on the correct lines on the scan cards. You can laminate bookmarks or simply distribute sticky notes. Some teachers use library pockets (or envelopes) with the bottoms cut off and affix them to a sturdy surface like a manila folder; a student can then slip a scan card into the library pocket or envelope and pull on the card to reveal one line at a time.

Teach Students How to Complete Assignments

Generate an identical exercise for everyone to do together that includes only two problems. Students won’t actually score this exercise, so you can generate it for one student, cover the student’s name, make copies, and then delete the assignment from the software.

Project the exercise and distribute copies of it to students. Show students how to draw a line between the problems to separate them visually. Model working the problems and circling answer choices on the exercise itself. Write the letter for each answer choice in the left margin. Complete both problems before introducing a scoring device.

Practice Scoring

Establish a routine so students can score assignments efficiently. Explicitly teach the routine to students and make sure they have plenty of opportunities to practice with your
guidance. Below we outline a few tips for using each scoring method: computer-scoring devices, an AccelScan scanner, Renaissance Responders, and NEO 2s.

**Computer-Scoring Devices**

While many primary students today begin school with a basic understanding of computers, laptops, and touch-screen devices, you will need to be sure that all students are familiar with the capabilities and interface of the device that they will be using during Accelerated Math practice time. If you will be using a class set of devices, you could save set-up time by assigning a student to hand out and collect the devices each day. You may also want to label and number each device and create a roster so that students are able to use the same device from day to day.

Schedule time early in the year for students to interact with their devices and with the software. Start with whole-class exploration, perhaps using a document camera or a projector that is connected to your own device, and then have individual students, pairs, or small groups explore the Accelerated Math Live student program on their own. If the devices have a lot of other programs or applications installed, you may want to consider hiding or removing ones that may be irrelevant or distracting for young students practicing math.

**AccelScan Scanner**

Many teachers take a week to teach young students how to use a scan card. Begin by making a copy of a blank scan card for each student. Distribute the copies to students and project the scan card so students can follow what you do. On day one, show them where to write their names. On day two, show them how to write in the form number and fill in the corresponding bubbles. On day three, refer to the exercise that you did together a few days earlier and show students where to bubble in the first answer choice. Instruct them to place their finger on line 1 of the scan card as they fill in the bubble. On day four, repeat the process with the second answer choice. On day five, work another two-problem exercise as a group, select answers, and fill in the bubbles on the scan card, following the same procedure. On succeeding days, do exercises together until students seem ready to try the procedure independently.

**Renaissance Responders and NEO 2s**

Even younger students can manage Renaissance Responders and NEO 2s with ease. If students haven’t used Renaissance Responders or NEO 2s yet, gather them around you to point out the main features. Then, after making sure to open the Renaissance Responder scoring software on your computer, demonstrate how to turn on and use the Renaissance Responder or NEO 2. (The appendix includes instructions for scoring an

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**Bubble Buddies**

Pair up students as bubble buddies to check over each other’s scan cards before scanning. Explain that bubble buddies make sure answer choices on the scan card match the answers chosen on the assignment. (Some teachers have one student read aloud the answer choices from the assignment while the other student verifies the answers on the scan card.) Emphasize that bubble buddies simply check that scan cards are filled in properly; they do not review or correct each other’s work.
assignment with a Renaissance Responder or NEO 2.) Next ask students to pick up a Renaissance Responder or NEO 2 on the way back to their seats so they can practice scoring. Give step-by-step guidance for scoring a two-problem exercise, referring to any visual aids you may have posted in your room. When they have finished scoring, have students return the Renaissance Responders or NEO 2s to their storage location, and explain when and how they should retrieve a scoring device. Give students plenty of opportunities to practice.

It is also a good idea to have students double-check their answers before they submit them to the software. Teach students to enter all of their answers, choose “No” when asked *Are you ready to submit work?*, and then go through the answers again. If they entered an answer incorrectly, they can change it the second time around. This helps them catch errors before their work is scored.

### Another Option for Teaching Students How to Complete and Score Assignments

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td><strong>Day 3</strong></td>
</tr>
<tr>
<td>Generates identical exercise for all students, including two problems for one objective</td>
<td>Generates identical (or individual) exercise for all students, including two problems for the same objective as days 1 and 2</td>
</tr>
<tr>
<td>Complete exercises together as a whole class</td>
<td>Complete exercise independently</td>
</tr>
<tr>
<td>Record answers on the exercise (if scanning, also fill in copy of a scan card)</td>
<td>Record answers on the exercise (if scanning, also fill in actual scan card)</td>
</tr>
<tr>
<td>Scores exercises</td>
<td>Score exercise</td>
</tr>
</tbody>
</table>

### Teach and Display Procedures for Scoring

After you have introduced how to complete and score assignments, model and have students practice procedures for scoring. Teach them steps similar to the ones below. Take photos as they do each step and display the photos on a bulletin board, including captions that describe each step. You might take a “celebration photo” of all students holding their TOPS Reports, and post that, too.

### Computer-Scoring Devices

1. Check that you are using the computer or device assigned to you.
2. Log in to Accelerated Math and click Start Working.
3. As you work, write down each problem, and show your work and your answers in your math notebook.
4. Enter your answers online.
5. After the last problem, double-check all of your answers. Be sure you don’t have any problems flagged.
6. When you are finished checking your answers, click Submit.
7. Review the assignment summary on your screen, especially any problems that you got incorrect. You will need this information when you meet with your teacher.

**AccelScan scanner**

1. Check that you have the right scan card for your assignment (exercise scan card, test scan card, etc.).
2. As you bubble in answers, keep track of which problem you are on.
3. Press firmly and fill in the bubbles completely.
4. Double-check your answers and erase any stray marks.
5. Bring your scan card, assignment, and any paper showing your work to the scanner.
6. Feed the scan card through the scanner.
7. Collect the TOPS Report and the next assignment if one is generated.
8. Staple the TOPS Report to the scored assignment and any paper showing your work.
9. Place the packet in a basket—green (Wow!) for 100 percent, or red (Oops!) if not 100 percent.
10. Return to your desk.

**Renaissance Responders and NEO 2s**

1. Turn on your Renaissance Responder (or NEO 2) and join a session (or choose the Responder applet).
2. Enter your form number.
3. Enter your answers.
4. When finished, choose “No” when asked: *Are you ready to submit work?* Double-check your answers. Choose “Yes” to send the answers to the computer.
5. Bring your assignment and any paper showing your work to the printer.

**Scanning Routine**

Use tape to mark a batter’s box and an on-deck circle on the floor. Teach students to stand in the batter’s box while scanning and in the on-deck circle while waiting. This ensures that only two students are up at one time. All the other students wait in the dugout (their seats).

**Correcting Work**

Although it’s important for students to correct missed problems, students in the primary grades may be unable to do so on their own. Establish a system so students receive help with this process. For example, some teachers have students sort their work as they hand it in (as described in Chapter 3), designating one basket for assignments for which students received one or more wrong. During the math period, teachers review the assignments, meet with students as necessary for reteaching, and give the go-ahead to correct the missed problems. They may also rework one or more missed problems with a student, and then have the student rework the remaining problems independently. Other teachers go to students after they score, look over the TOPS Report and attached work, and provide any clarification on the spot. Whatever your approach, make sure that students have help available when correcting missed problems—either from you, an instructional aide, or perhaps a student helper from a higher grade.
6. Collect the TOPS Report and the next assignment if one prints.
7. Staple the TOPS Report to the scored assignment and any paper showing your work.
8. Place the packet in a basket—green (Wow!) for 100 percent, or red (Oops!) if not 100 percent.
9. Return to your desk.

Use Exercises First

After students have gained some experience with Accelerated Math, generate six problems for one objective on an exercise, making them identical for all students. Print the sample problems for the objective and make copies for students. Do the sample problems together and have students complete the exercises independently.

When students are familiar with this process, generate individualized exercises and observe how well students complete them independently. When you feel students are able to work on their own, you might switch from exercises to practice assignments. This makes it possible for next practice assignments to generate automatically when students score and for students to receive review problems. Practice assignments are also individualized: they give students more practice on objectives when necessary and they can include objectives assigned to individual students for enrichment or remediation. Some teachers use exercises exclusively for a marking period (or about six to nine weeks), and then switch to practice assignments for daily independent practice.

Limit the Scope of Tests

Whether you choose to use exercises or practice assignments for daily practice, both will lead to students becoming ready to test on objectives. When that happens, generate regular tests for students—perhaps including just one or two objectives at a time—so they can demonstrate mastery of the material. Limiting the scope of tests has several benefits: students are more likely to complete tests within one class period, they will test on objectives soon after becoming ready to test on them, and they’ll likely be presented with a closely related set of problems. All of these factors increase the likelihood that students will meet with success when testing.

You might consider having all students test on the same day so you can more easily direct students, control the testing environment, and meet with students after they score. Students who finish testing can practice math facts, complete other assigned work, or possibly work in a classroom learning center. Some teachers test every third day: On day one, students practice an objective independently. On day two, teachers meet with students who are struggling with the objective and perhaps generate an exercise for additional practice. (Students who don’t need extra help continue with practice...
assignments or work on a related activity, like practicing math facts.) On day three, teachers generate regular tests for all students.

Preview Problems with Students

We previously suggested that you preview an objective’s sample problems before including it on an assignment (see Chapter 4), and possibly walk through the problems with students. For primary students, we recommend that you always complete sample problems for an objective as a whole group. Some teachers project the sample problems and go through them with students, revealing just one problem at a time. They may even repeat the process on the following days if working with the same objective. Other teachers independently preview the sample problems, and then incorporate similar examples into their regular instruction. Either approach helps ensure that students can connect your instruction with the problems they receive on Accelerated Math assignments.

Set Up a Signal System

Hand out cups, construction-paper tents, or small signs on wooden sticks that students can use to signal you if they need help when they are working problems: green means everything is okay, red means they have questions, and yellow means they are taking a test.

SUMMARY
ACCELERATED MATH WITH PRIMARY STUDENTS

- Make some accommodations for primary students—such as changing printing preferences, preparing tracking aids, or setting up a signal system—to support students’ Accelerated Math practice.
- Explicitly teach students how to complete and score assignments, post visual aids to support the procedures, and provide plenty of opportunities for students to practice with your guidance.
- Use exercises at the start of your implementation to control when assignments are generated and also to keep students working at the same pace.
- When students are comfortable with Accelerated Math, consider switching to practice assignments for daily math practice so students can receive individualized assignments that automatically include review problems.
Accelerated Math in High School

The value of Accelerated Math extends beyond the primary and middle grades to high school. As students move into high school, the gap widens tremendously between high- and low-achieving math students. While some are still struggling to grasp the concepts of general math and pre-algebra, others are already tackling college-level calculus. What’s more, high school math teachers often teach more than 100 students each day in five or six separate periods, making it difficult to differentiate practice and monitor each student’s progress.

A great benefit of Accelerated Math is that it helps address these issues. Accelerated Math enables teachers to easily manage the practice of a large number of students—whether they are following a set scope and sequence for a class, or addressing each student’s needs at an individual level. Real-time feedback makes it possible for teachers to keep every student motivated and engaged, immediately intervene with students who are falling behind and need extra help, and ensure that every student achieves maximum success. And because Accelerated Math is an individualized program, all students, regardless of ability, participate equally. In this chapter, we offer tips for implementing Accelerated Math in a high school.

Explore the Role of Accelerated Math

Accelerated Math may play several roles within a high school, making it look different from one classroom to the next. If you are an administrator, consider how Accelerated Math can benefit the various programs within your school or district. For example, in addition to supporting practice within regular math classes, some schools also use Accelerated Math for test preparatory classes or intervention programs. Teachers can tailor Accelerated Math objective lists to suit specific courses, and the program’s personalized practice can help target students’ individual skill gaps when necessary.

If you are a teacher, consider the role Accelerated Math will play in your classes. For example, you might use Accelerated Math as a daily practice component, perhaps relying on a subject-level library such as Algebra 1 or Geometry. Or you may pull in Accelerated Math for specific topics to provide targeted effective practice and to easily monitor progress. For example, objectives from a Financial Literacy Math Library could be used to provide extra practice with solving math problems in the context of financial situations.

Financial Literacy Math Libraries

Accelerated Math has two Financial Literacy Math Libraries: one is primarily targeted toward middle-school students (grades 5–8), and the other is primarily targeted toward high-school students (grades 9–12). Objectives in both libraries address math skills associated with income, budgeting and cost management, savings and investing, and credit and debt management. They help students become familiar and proficient with the types of computations, procedures, reasoning, and problem solving associated with financial matters. The objectives predominantly focus on applying basic math skills and calculations with percentages, and require some algebra skills to solve problems; all objectives use word problems. Selection of the objectives was based on the financial math skills commonly found in national and state financial literacy standards and curricula.
One High School's Partial Plan for Accelerated Math

<table>
<thead>
<tr>
<th>Course</th>
<th>Geometry</th>
<th>Remedial Algebra</th>
<th>State Test Preparation Class for Qualifying Juniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective List</td>
<td>All objectives from the Geometry library</td>
<td>Customized, pulling from several libraries including Grade 7, Grade 8, and Algebra 1</td>
<td>Customized, pulling from several grade-level libraries</td>
</tr>
<tr>
<td>Role in Class</td>
<td>Used alongside the textbook to provide personalized practice of objectives taught in class</td>
<td>Drives the curriculum for the course; students work through scope and sequence identified by teachers</td>
<td>Provides sole practice component; students practice independently and receive one-on-one or small-group instruction; each student targets individual skill gaps</td>
</tr>
<tr>
<td>Contribution to Overall Grade</td>
<td>Portion of grade</td>
<td>Entire grade</td>
<td>Portion of grade</td>
</tr>
</tbody>
</table>

---

**Practice**

Ms. A. Gaskin
Ms. Gaskin's Geometry Period 5
South High School

Objective 82: Determine the length of the radius or the diameter of a circle given the area of a sector

Objective 83: WP: Determine a length or an area involving a sector of a circle

Objective 84: Review WP: Determine a length given the area of a quadrilateral

Objective 85: Review WP: Solve a problem involving the area of a quadrilateral

---

**Geometry**

Students practice objectives taught in class.

**22.** The area of the parallelogram below is 561 mm². What is the height, h, of the parallelogram?

![Parallelogram](image)

- [A] 25.5 mm
- [B] 51 mm
- [C] 11.75 mm
- [D] 23.5 mm

**23.** A billboard offers several options for windshield wiper blade lengths and angles of operation. A particular windshield wiper has a wiping angle of 50° and a wiper blade 40 cm long, as shown in the diagram below. To the nearest square centimeter, what is the area swept clean by the wiper blade? Use 3.14 for π.

![Diagram](image)

- [A] 7536 cm²
- [B] 5624 cm²
- [C] 654 cm²
- [D] 1047 cm²

**24.** A sector of a circle has an arc measurement of 9°. The area of the sector is 25.4 cm². What is the radius of the circle? Use 3.14 for π and round the answer to the nearest tenth of a centimeter if necessary.

- [A] 2.8 cm
- [B] 16.8 cm
- [C] 18.0 cm
- [D] 12.7 cm

**25.** The area of a 144° sector is 112 cm². What is the diameter of the circle? Round the answer to the nearest tenth of a centimeter if necessary.

- [A] 21.2 cm
- [B] 105.8 cm
- [C] 33.5 cm
- [D] 140.0 cm
18. Ruby makes fleece scarves and sells them for $3.25 each. The supplies cost her $2.10 per scarf. Last month, Ruby sold all but 5 of the scarves she made. Her net profit for the month was $43.05. Let \( x \) equal the number of scarves Ruby sold and let \( y \) equal the number of scarves she made. Which system of equations could be solved to find how many scarves Ruby sold last month?

\[
\begin{align*}
[A] & \quad 5.25x - 2.10y = 43.05 \\
[B] & \quad 2.10x - 5.25y = 43.05 \\
[C] & \quad 5.25x + 2.10y = 43.05 \\
[D] & \quad 2.10x + 5.25y = 43.05
\end{align*}
\]

Simplify:

19. \((8b - 9a^2) - (-8b - 10 - 7a^2)\)

\[
[A] \quad -2b^2 + 16b + 10 \\
[B] \quad -b^2 + b + 10 \\
[C] \quad b^2 - 10 \\
[D] \quad -16b^2 - 16b + 10
\]

20. \((7w^2 - 7w^2) + (-3w^2 + 3 + 5w^2)\)

\[
[A] \quad -10w^2 + 5w^2 + 7w + 3 \\
[B] \quad 4w^2 + 2w + 3 \\
[C] \quad 10w^2 + 5w + 3 \\
[D] \quad -10w^2 + 5w^2 + 3w
\]

21. \((3x^2 - 6) + (6x^2 - x^2 - 8x + 6)\)

\[
[A] \quad 9x^2 - x^2 - 8x + 12 \\
[B] \quad 9x^2 + 6x^4 - 8x \\
[C] \quad 9x^2 + x^2 - 8x + 6 \\
[D] \quad 9x^2 - x^2 + 8x - 6
\]

Solve using any method:

22. \(y = 7x - 5\)

\[
[A] \quad -\frac{5}{14}, \quad 5 \\
[B] \quad -\frac{3}{14}, \quad 40 \\
[C] \quad no solution
\]

Objective(s): (4 of 4 listed)
70. Add polynomial expressions
71. Subtract polynomial expressions
72. Solve a system of linear equations in two variables using any method
73. \(<Review>\) Solve a 1-step linear equation involving integers
74. \(<Review>\) Solve a 2-step linear equation involving integers
75. \(<Review>\) WP: Use a 1-variable 1-step equation to represent a situation

61. The area of a circle is \(16\pi\) cm². What is the circumference of the circle?

[A] \(4\pi\) cm \\
[B] \(8\pi\) cm \\
[C] \(12\pi\) cm \\
[D] \(16\pi\) cm

62. Oliver earned $20.25 less this week than last week. This week, he earned $65.50. Which equation can be used to find \( a \), the amount Oliver earned last week?

[A] \(20.25 - a = 65.50\) \\
[B] \(a - 20.25 = 65.50\) \\
[C] \(a = 20.25 + 65.50\) \\
[D] \(a + 65.50 = 20.25\)

63. The area of a circle is \(25\pi\) square inches. What is the circumference of the circle?

[A] \(20\pi\) in. \\
[B] \(5\pi\) in. \\
[C] \(10\pi\) in. \\
[D] \(4\pi\) in.

64. The area of a circle is \(64\pi\) square feet. What is the circumference of the circle?

[A] \(16\pi\) ft \\
[B] \(16\pi\) ft \\
[C] \(8\pi\) ft \\
[D] \(32\pi\) ft

65. What is the volume of the rectangular prism?

![Volume of Rectangular Prism]

[A] \(12.6\) m³ \\
[B] \(47.04\) m³ \\
[C] \(43.04\) m³ \\
[D] \(131.712\) m³
Support a Culture of Accelerated Math

When Accelerated Math is part of a high school’s math culture, you can tell that teachers and students embrace it. They are excited about it. Some students even become Accelerated Math’s most vocal supporters! How does this happen? The cause is usually twofold. First, a math department, backed by a supportive administrator, takes time to learn about Accelerated Math best practices to ensure a strong implementation. Second, students have positive experiences with Accelerated Math, and therefore with math in general. Students become empowered by the program’s personalized practice and immediate feedback. They take charge of their own progress, moving ahead at their own pace and experiencing greater confidence each step of the way.

Start out small and on the right foot. If Accelerated Math is new to your school, consider first using the program in one course or with one group of teachers. This will help establish a core group of experienced users who can then mentor other teachers when they begin to implement the program. The following year, you might add another course or group to the Accelerated Math implementation, and so on. As the use of Accelerated Math spreads throughout your school, so will enthusiasm around the program. Going forward, teachers using Accelerated Math can meet regularly to discuss the progress of their implementations and plan special revitalizing events like team competitions (see Chapter 6) later in the school year.

Involves administrators. School principals are often the key to significant change. They are the instructional leaders, as well as the ones who decide how time is spent and activities are funded. If you are the school principal, invest in professional development for all math staff and attend yourself. Be a champion for students as well. Start off each semester by acknowledging the journey students are about to take and acknowledge their success as the year goes on.

Designate an Accelerated Math coordinator. Many schools find it helpful to have one person in the building identified as the Accelerated Math coordinator. Because this person works closely with teachers to strengthen their implementations, it is often someone who has experience with implementing Accelerated Math in the classroom. (Some schools choose a classroom teacher to fill the role, making it a part-time position and providing an extra planning period.) The Accelerated Math coordinator usually has received extra training—and perhaps continues to receive it on an ongoing basis via implementation coaching—and serves as a support to other teachers. She may also initiate meetings to plan special events and solve problems.

Publicize success. At the end of the school year, report the gains students have made to the local press. Give everyone credit. Positive reinforcement leads to greater commitment and camaraderie.

Focus on Motivation

Motivated students are those who have experienced success with math. In Accelerated Math, this primarily results from (1) individualized practice, (2) meeting personalized goals, and (3) getting help to move forward before falling further behind, all of which are discussed in other sections of this book. We list some additional motivational strategies on the following page.
Grades. We first discussed grades and Accelerated Math in Chapter 6. In high school, grades take on even more significance as students become focused on meeting graduation requirements and perhaps applying to colleges. If you grade Accelerated Math work, make sure that students understand your grading scale and that they are able to measure their progress toward an end-of-quarter or end-of-semester grade. For example, some teachers position the number of mastered objectives as the driving force behind grades, supplying lots of support during practice so students can move forward at a steady pace. At the end of any given week, students know how many objectives they’ve mastered so far, and how many they need to master to be on pace to earn an A, B, C, etc., at the end of the marking period. Other teachers use average test percent correct in addition to number of objectives mastered to determine a grade for Accelerated Math work, perhaps using a Student Math Plan to record and monitor goals (see an example in Chapter 6). Also consider how much to weight Accelerated Math work when figuring students’ overall math grades.

Working with peers. Incorporate small-group work into your implementation to enable students to help one another with practice assignments and exercises. Not only do many students thrive on social interaction, but Accelerated Math generates a vast supply of problems for the same objectives—making this a perfect arrangement. The online student program offers students a variety of collaborative opportunities. See the electronic supplement for more details.

Recognition. Sometimes it’s recognition that gets students to try their best. In some cases, it may be as simple as letting students write their names on the board after they master objectives or verbally congratulating them one-on-one after they earn a high score. You might more formally acknowledge students at other times, perhaps when they are on track to meet their goals for the marking period or when they achieve certain milestones (such as mastering a certain number of objectives). Finally, recognize the success of the whole class from time to time: this reinforces that individual efforts contribute to class success and helps to foster a classroom culture of support.

Incentives. When students are introduced to new routines, they sometimes need more tangible incentives. Consider rewarding students who meet individual goals or who accomplish specific tasks, such as scoring homework within the first five minutes of a class, achieving a certain number of good scores on a certain day, keeping excellent notes, or volunteering to coach a student. You could use tangible rewards like certificates, pencils, pens, school-themed key chains or lanyards, or other items. Some teachers also use privileges as rewards: for example, having food or drink in class, listening to music during Accelerated Math practice, or sitting in a special chair or place for math class. Think about incorporating Accelerated Math into an existing school-wide incentive program if your school has one.

Shift Responsibilities to Students

Make it clear to students that math success lies in their hands, with your support. For example, reinforce that they earn their grades; you don’t hand them out. They also should work together to learn objectives and take the initiative to seek help if they’re struggling.
Also make students responsible for organizing their materials, whether you store them in the room or have students bring them to and from class. Some teachers, if using an AccelScan scanner, allow designated students to troubleshoot scanning issues.

### SUMMARY

**ACCELERATED MATH IN HIGH SCHOOL**

- Explore the role of Accelerated Math, considering how its versatility can benefit the various programs at your school.
- Support a culture of Accelerated Math to sustain excitement around the program.
- Employ motivational strategies focused on achieving success with math.
- Shift responsibilities to students to reinforce that success lies in their hands, with your support.
Common Questions

Accelerated Math is a complex piece of software, and students are unpredictable people. Sometimes things might seem to get off track! Here are a few common situations and suggestions for how to deal with them.

**The scanner keeps rejecting the scan cards. I know I can phone for help, but I don't want to stop the day's math practice. What do I do?**

You can enter students’ answers manually in the software until you can fix the problem. That way, students can continue to have their work scored and get new assignments. (The appendix includes instructions for manually scoring or rescoring an assignment.) When you have a chance, diagnose the scanning problem. Are students waiting for the scanner to push out the card or are they pulling it? Are there stray marks on the card? Try adjusting the scanner setting so that it is not so sensitive. Or try using a new scan card, only filling in the answers for the assignment you want to score. This often works if the old card was worn or had erasures.

In addition to phone support, remember you can also take advantage of live chat support during regular business hours. After logging in to Renaissance Place, click the Live Chat Support link in the upper right corner of the Home page.

**I understand that if a student mistakenly bubbles two answer choices on the same line on a scan card, the software can’t check either problem. But I don’t want the student’s work on the assignment to be wasted. Can the assignment be rescored?**

Yes. You need to do it manually, however, not with the scan card. We call this keyboard scoring. The appendix includes instructions for manually scoring or rescoring an assignment.

**I have tried to use Renaissance Responders (or NEO 2s) to score Accelerated Math assignments, but the appropriate screen never appears on the Responder (or NEO 2). What should I do?**

In order for students to score Accelerated Math assignments with a Renaissance Responder or NEO 2, you need to install the Renaissance Responder scoring software on your computer, connect a Renaissance Receiver, and set the Renaissance Place address in the wireless server utility. (See the software manual for instructions.) Make sure the Renaissance Responder scoring software is open on your computer when students score assignments.

**I can’t select a certain number of problems for practice assignments. Is this possible?**

No. The size of practice assignments is based on duration, not on a set number of problems. With the default settings, small practice assignments generally take a typical student about 10 minutes to complete, medium practice assignments take about 20 minutes, and large practice assignments take about 30 minutes. The software generates medium practice assignments by default, but you can select a different default size for a class—as well as change the default durations and percentage of review problems—
using the Practice preference in the software. You can also select an assignment size when manually generating practice assignments from the software.

**What should I do when a student “loses” an assignment?**
Regenerate it. You can choose to include the problems that were on the original assignment or different ones. (The appendix includes instructions for regenerating printed assignments.) Students can also regenerate existing practice assignments and exercises from home through Renaissance Home Connect, which may help to eliminate missed homework due to assignments left at school; see Chapter 5 for more information.

**What is the reasoning behind students showing all their work with paper and pencil before scoring Accelerated Math assignments?**
Accelerated Math's paper-and-pencil, hands-on method helps students understand the functioning of math problems. The paper trail of student understanding is indeed irreplaceable in a math classroom. It gives you opportunities to dissect math work with students and diagnose misunderstandings; and it helps students easily discuss their work and defend their reasoning when working with peers.

**I have a student who is frequently absent. She has missed a lot of work, and she seems discouraged. What should I do?**
If she wasn’t in class when you taught objectives that have been assigned to her, you can put those objectives on hold. (The appendix includes instructions.) Then you can release the holds as you help her catch up with what she has missed. If you’re not able to provide instruction yourself, pair her with students who have done well with the objectives. If appropriate, generate a diagnostic test for the student so she can directly master objectives she understands, potentially boosting her motivation. Also consider having the student forge ahead with practice assignments and exercises at home, possibly with the help of a parent and by accessing worked examples and the math glossary in Renaissance Home Connect; see Chapter 5 for more information.

**Can I use Accelerated Math for homework?**
Yes! Renaissance Home Connect is a great tool for extending student math practice to home, and also for involving parents in their child’s work. From any Internet-connected computer, students can log in to Renaissance Home Connect and access worked examples and the math glossary to help them complete their assignments. Students can also regenerate existing practice assignments and exercises through Renaissance Home Connect, and perhaps even score them from home if a preference is set in Accelerated Math. (If you have Renaissance Home Connect, an administrator must first activate it for your school before you can use it with students; see Chapter 5 for more information about the program.)

Even without Renaissance Home Connect, you can still use Accelerated Math for homework. Consider sending home practice assignments or exercises so students can spend time practicing outside of class. Some teachers generate an identical homework exercise for all students. After students score their exercises the next day, the teacher can identify any misunderstandings and address them before moving on to new material.

It’s important to keep in mind, however, that homework should not replace Accelerated Math practice time in class. Practicing in class ensures that students spend time practicing and is your best chance to coach students as they are working.
I’m a new teacher and don’t have many resources to draw upon. Are there any “extra” materials in Accelerated Math?

Accelerated Math includes many resources for teachers to use with students and for instructional planning. Your subscription to Accelerated Math Live provides you with the following resources:

- **Sample problems.** View sample problems in library guides (see the appendix for instructions) or access them directly in the software by clicking the View Example icon after an objective’s name. Some teachers project the sample problems and walk through them with the whole class; they may also print them or view them on screen to facilitate working with students one-on-one or in a small group.

- **Worked examples.** Worked examples give a step-by-step framework for how to solve a sample problem for an objective. While using worked examples as teaching tools, you can elaborate on the approach and steps, and explain why they lead to the correct answer. In addition, worked examples usually display a single method for solving the problem presented, although multiple methods may be possible. This opens the door for you to deepen student understanding by discussing alternate methods or even by asking the student if another way occurs to her. Access worked examples in the software by clicking the View Worked Example icon after an objective’s name.

- **Core Progress learning progression for math.** Use the Core Progress learning progression for math to see concepts associated with each of the Accelerated Math core objectives, a list of prerequisite skills, and where each objective lies in the learning progression—both within a grade, and from grade to grade. If students are having difficulty with a particular objective, use Core Progress to help with further diagnosis and remediation. You can also print sample problems and worked examples from Core Progress to support your reteaching of an objective. To access Core Progress, go to the Assignment Book and click Enter Core Progress under Objectives on the left.

- **Math glossary.** The math glossary provides definitions of various math terms and concepts. The included items are considered to be those most important for students’ success with objectives in the Accelerated Math libraries. Each definition includes audio; most definitions also have a visual representation (which is sometimes animated). Use the math glossary as a quick reference when explaining concepts to students. To access the math glossary, go to the Assignment Book and click Math Glossary under Other on the left.

- **Instructional videos.** Beginning fall 2013, the online student program will provide direct links to external resources related to the objectives students are practicing. For example, many objectives will be linked to instructional videos available on the Internet. Students will simply click to access these resources while they practice online in Accelerated Math.

Students working online can access worked examples, the math glossary, and other resources directly through the software; see the supplement for details. In addition, students and parents can access worked examples and the math glossary through Renaissance Home Connect. (See Chapter 5 for more information.)

**How can I use Accelerated Math assignments during instruction?**

Exercises, especially, make for good instructional materials. Here are a couple of different ways to generate them for this purpose:
• For complex objectives, generate identical exercises containing six problems, along with the objective's sample problems, so you have at least eight problems on hand. During your lesson, demonstrate how to work one sample problem and then work one or two together as a class. During practice time, have students complete and score their exercises independently.

• If you want to work a number of problems together as a group, generate an exercise for one student and then delete the assignment in the software. Cover the student's name and make copies for your class. Work through the entire set together during your lesson. Students do not score answers.

• If you are working one-on-one with a student, print a short free-response exercise, perhaps including three to five problems. Guide the student through the first one, and then ask the student to work the remaining problems, explaining each step to you as he does so.

I want to have more differentiation in my classroom, but I have a hard time keeping track of what students are working on. I don't want to have to sit in front of the computer all day. Any ideas?

Be sure to take advantage of the Status of the Class Report, which provides a snapshot of class practice. (A full-page example is included in the appendix.) You might print this report for each math class at the beginning or end of the school day, so you can easily monitor practice and plan next steps. You could also make classroom activity more visual. For example, some teachers create a large chart that lists objectives across the top and student names down the side. As students master objectives, they put a checkmark under the objective and next to their name. If your students are using printed assignments, another idea is to print different types of assignments on different colored paper. If a practice assignment is white, for example, an exercise could be pink, a regular test yellow, and a diagnostic test blue. A glance around the classroom will remind you of what each student is working on.

I need to spend time helping my students prepare for standardized tests. Do I need to stop using Accelerated Math while I do that?

No. Let the software help you. View the Group Standards Mastery Report to see how students are doing with objectives aligned to your state standards. Identify objectives that you need to target with the whole class, and print sample problems or exercises to provide additional practice on them. (Generating an exercise will not change the status of a mastered or reviewed objective, regardless of a student's performance on additional exercises.) Identical exercises make it apparent whether a particular problem is causing difficulty for a lot of students; they are also easy to go over as a whole class. If using exercises for a large number of objectives, consider including only two or three problems per objective to limit the size of the assignment.

Is it okay to use an exercise for my midterm and semester tests?

Of course. Configure the exercise any way you like it. The software will guide you through a number of options. (Generating an exercise will not change the status of a mastered or reviewed objective, regardless of a student's performance on additional exercises.)
The program is using more paper and toner than I anticipated. What can I do to conserve these resources?

One of the simplest ways to reduce your need for paper and toner is to have students use the Accelerated Math Live online student program. If students will be accessing, working, and scoring their assignments online, each student will need her own device. If students will be using computers, laptops, or tablets only for scoring, we recommend having one device for every five students. More recommendations for the online student program are provided in the electronic supplement.

Here are some suggestions to help conserve paper and toner if you are using printed assignments in your classroom. Many teachers find that local businesses are willing to donate old letterhead or paper that has only been printed on one side. In addition, changing the font size in the software can allow more problems to appear on each page, which may cut down on the amount of paper needed. Next year, consider the list of supplies you ask parents to provide. Can anything be removed? If so, in its place, consider asking parents to supply a ream of paper for Accelerated Math use. If you have a copier budget, look into repurposing some of it for classroom printing supplies, since Accelerated Math will greatly reduce the copying you do for math. To reduce the amount of toner needed, set the printer to draft mode (unless such a setting on your printer will interfere with the appearance of shading in graphics). If your school is considering purchasing new printers, we recommend you buy a duplex printer so you can print assignments on both sides of a piece of paper.

I would like to learn more about how to use Accelerated Math. Where should I look?

There are numerous tools to help you use Accelerated Math successfully in your classroom. Refer to these resources when you need additional help or when you’re ready to advance the use of your program:

- **Renaissance Training Center.** Visit the Renaissance Training Center at www.renlearn.com/training to learn more about common implementation topics, read educator success stories, access on-demand sessions that demonstrate common software tasks, view professional development offerings, learn about certification programs, or read about the research supporting Accelerated Math.

- **Renaissance certification.** By enrolling in a certification program, you can adhere to implementing best practices, validate the efforts of you and your students, and connect with other educators to share ideas. To learn more about certification, call (800) 338-4204 or visit the Renaissance Training Center.

- **Professional development.** Remote or on-site professional development sessions are available to help you maximize the power of Accelerated Math. To learn more about professional development opportunities, call (800) 338-4204 or visit the Renaissance Training Center.

- **Resources in the software.** Print reproducible forms and view documents that detail beginner and advanced implementation strategies. Locate resources by clicking Resources under Accelerated Math on the Renaissance Place Home page.
Appendix
Appendix

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Instructions for Common Software Tasks

The electronic supplement contains additional instructions for common software tasks related to the Accelerated Math Live online student program. If your students will be working their Accelerated Math assignments online, please refer to the supplement or to the software manual for more details.

Using STAR Math

Locate Pretest Instructions
1. On the Home page in the STAR Math task list, click Resources.
2. Click Pretest Instructions.
3. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Set the Monitor Password
1. If you wish to change the default setting for the monitor password (ADMIN), click Preferences in the STAR Math task list.
2. Select a class if necessary using the drop-down list. Click Testing Password and enter a new monitor password.
3. Click Save.
4. Click Done.

Print Student User Names and Passwords
1. On the Home page in the STAR Math task list, click Reports.
2. Click Student Information.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

View or Print Reports
1. On the Home page in the STAR Math task list, click Reports.
2. Click the name of the report you wish to view or print.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.
Setting Up Accelerated Math

Setup tasks for the Renaissance Place version of Accelerated Math are usually performed by school or district technology staff. These tasks include installing libraries; entering district, calendar, school, teacher, and student information; and adding and assigning classes and teachers. Instructions for these tasks are in the software manual.

Working with Accelerated Math Objectives

Assign an Objective List
You must assign an objective list to a class or group before you can print assignments from the class or group for students. When assigning a list, you can create a new objective list or select one that has already been created—either by you (see Create an Objective List on the next page) or by someone else.

1. On the Home page in the Accelerated Math task list, click Assignment Book.
2. Select a class or group if necessary using the drop-down lists.
3. View the list options in the light green box on the Assignment Book page.
   You will see at least two of the following options:
   - **Grade x Objective List.** Assign a default objective list for the Accelerated Math library shown. Please note that a list assigned in this way cannot be edited; objectives cannot be reordered, added, or removed. It simply remains the default list, in the default order.
   - **An existing objective list.** Assign an objective list that has already been created. The list could be a default Accelerated Math library list (Library List), created by someone else (Shared List), or created by you (My List). You can use an existing list without making changes or create a copy of the list. If you use an existing list without making changes, any changes made to the original list by the owner will also affect your list. If you make a copy of the list, changes made to the original list by the owner will not affect your copy.
   - **New objective list that I will create.** Create a new objective list and assign it to the class or group. You can edit a list created and assigned in this way.

   (See the software manual for more detailed information about each option.)

4. Choose an option and click Select.
   - If you choose Grade x Objective List, you are finished assigning the objective list.
   - If you choose An existing objective list, select the existing objective list, choose whether to make a copy of it, enter a name if necessary, and click Save.
   - If you choose New objective list that I will create, enter a name for the list and click Next >. Then add objectives to the list by clicking Add All to add all of the objectives from a library, or by clicking Add to add individual objectives from a library. Click Done when you are finished adding objectives.
Create an Objective List
Note: An objective list must be assigned to a class or group before it can be used with the class or group.

1. On the Home page in the Accelerated Math task list, click Libraries.
2. Click Manage Objectives under Objectives on the left.
3. Click Create New List under Choose Objective List on the left side.
4. Enter a name for the objective list, choose options, and click Next >.
5. Add objectives to the list. Click Add All to add all of the objectives from a library to the list, or Add to add individual objectives from a library.
6. Click Done when you are finished adding objectives.

Print the Objective List Report
1. From the Assignment Book, click More Reports....
2. Click Objective List.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Assign Objectives to Students
1. From the Assignment Book, click Assign Objectives under Activities on the left. (You can also check boxes for individual students and then click Assign.)
2. Check the box for each objective you wish to assign. Check the box for a number at the top of a column to select an objective for all students.
3. Click Assign.
4. Click Done.

Unassign or Hold Objectives
Note: Unassigning objectives and putting objectives on hold must be done separately. Only objectives that have been assigned can be unassigned.

1. From the Assignment Book, click Hold/Unassign/Reset under Activities on the left. (You can also check boxes for individual students and then click Hold/Unassign/Reset.)
2. Check the box for each objective that you want to unassign or put on hold. Check the box for a number at the top of a column to unassign or put an objective on hold for all students.
3. Click Unassign or Hold.
4. Click Done.

Reorder Objectives in an Objective List
Note: If you are working with a default-order list, you cannot reorder objectives.

1. From the Assignment Book, click Manage Objectives under Objectives on the left.
2. Click Reorder under Manage Objectives on the left.
3. Click **Reorder by Objective**.
4. Check the box for each objective you want to move.
5. To move objectives up or down in the list, type the number of positions to move in the Move Up or Move Down fields. Then, click **Move Up** or **Move Down**.
6. To move the objectives to a specific position in the list, type the desired position in the Move To field. If you chose more than one objective, this will be the position of the first objective (numerically) that you chose. Then, click **Move To**.
7. Click **Save**.

**Add Objectives to an Objective List**

Note: If you are working with a default-order list, you cannot add objectives.

1. From the Assignment Book, click **Manage Objectives** under Objectives on the left.
2. Click **Add/Remove** under Manage Objectives on the left.
3. Click **Add All** to add an entire library or click **Add** to select objectives from a library. If adding specific objectives, check the box for each objective and then click **Add**.
4. Click **Done**.

**Remove Objectives from an Objective List**

Note: To fully remove an objective, reset the objective and delete any outstanding assignments containing that objective before removing the objective from an objective list. If you are working with a default-order list, you cannot remove objectives.

1. From the Assignment Book, click **Manage Objectives** under Objectives on the left.
2. Click **Add/Remove** under Manage Objectives on the left.
3. Click **Remove All** to remove an entire library from the list. To remove individual objectives, click the red x next to each one. (You can also click **Remove** in the row of a library, check the box for each objective you wish to remove, and then click **Remove**.)
4. Click **Done**.

**Generating Assignments**

**Generate a Practice Assignment**

1. From the Assignment Book, click **Generate Practice** under Activities on the left. (You can also check boxes for individual students and then click **Generate Practice**.)
2. Under Assignment Format, select either **Online** or **Paper**.
3. Choose the size of the assignment and click **Generate**.
4. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).
Generate an Exercise

1. From the Assignment Book, click Generate Exercise under Activities on the left. (You can also check boxes for individual students and then click Generate Practice.)
2. Under Assignment Format, select either Online or Paper.
3. Answer Format, select Assisted-Response (multiple choice) or Free-Response (short answer). (The free-response format is available for paper assignments only.)
4. Enter the number of problems per objective you wish to include.
5. If you are generating an exercise for more than one student, select Individual or Identical under Problem Generation.
6. If you selected the Identical Free-Response format, choose either a global answer key or individualized answer keys.
7. Check the box for each objective you wish to include on the exercise.
8. Click Generate.
9. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).

Generate a Regular Test

1. From the Assignment Book, click Generate Test under Activities on the left. (You can also check boxes for individual students and then click Generate Test.)
2. Under Objective Limit, enter the maximum number of ready-to-test objectives you wish to include.
3. Under Assignment Format, select either Online or Paper.
4. Under Answer Format, select Assisted-Response (multiple choice) or Free-Response (short answer). (The free-response format is available for paper assignments only.)
5. Click Generate.
6. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).

Generate a Diagnostic Test

1. From the Assignment Book, click Generate Diagnostic under Activities on the left. (You can also check boxes for individual students and then click Generate Diagnostic.)
2. Under Assignment Format, select either Online or Paper.
3. Under Answer Format, select Assisted-Response (multiple choice) or Free-Response (short answer). (The free-response format is available for paper assignments only.)
4. If you are printing a diagnostic test for more than one student, select Individual or Identical under Problem Generation.
5. If you selected the Identical Free-Response format, choose either a global answer key or individualized answer keys.

6. Check the box for each objective you wish to include on the diagnostic test.

7. Click Generate.

8. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).

Regenerate or Delete Assignments
Note that scored assignments cannot be deleted. Also note that you may only regenerate paper assignments (not online assignments).

1. From the Assignment Book, check the box for the student.

2. Click Regenerate/Delete under Activities on the left.

3. Choose the assignment type and click Regenerate or Delete.

4. If reprinting, choose to print the same problems or different ones; then, click Regenerate.

5. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).

Scoring Assignments

Score an Assignment Using AccelScan

1. For Windows, select Programs from the Start menu or , and then select AccelScan. For Macintosh, double-click the AccelScan icon in the folder in which the program is installed. You may want to add a shortcut to AccelScan on your desktop.

2. Enter your user name and password; then, click Log In.

3. Click the Student Mode icon. (In Student Mode, students cannot access program settings and the Accelerated Math Scoring preference limits what students can score.)

4. When the display shows Ready to Scan, insert the scan card into the scanner face up with the form number going into the scanner first. (If you have the older 1100 USB model, insert the scan card face down.)

5. Wait for the scanner to grab, read, and release the scan card.

6. When your students have finished scoring assignments, click Log Out.

Score an Assignment Using a NEO 2
Before students can begin scoring assignments using NEO 2s, you must install NEO Manager, connect the Renaissance Receiver to your computer, name the Renaissance Receiver, and set the Renaissance Place address in the wireless server utility. See the software manual for instructions on how to complete those tasks.

1. Open the Renaissance Responder scoring software on your computer: For Windows, select Programs from the Start menu or , and then select Renaissance Responder. For Macintosh, double-click the Renaissance Responder icon in the folder in which the program is installed. (You may want
to add a shortcut to Renaissance Responder on your desktop.) Enter your user
name and password; then, click Log In.

2. Turn on the NEO 2 by pressing on/off; then, press applets.

3. Press the down arrow until the cursor is next to Responder; then, press enter.

4. If necessary, use the arrow keys to highlight the network (Receiver name) to
which you must connect. Press enter. (If you are asked if you want to stay
connected to the last network used, press Y for yes or N for no. If you choose no,
choose another network and press enter.)

5. Enter the form number of the assignment. Then, press enter.

6. If the NEO 2 tells you to wait until your assignment is retrieved, press enter
again.

7. When the screen shows your name and form number, press Y for yes. (If it shows
the wrong name, press N for no.) Then, press enter.

8. Use a letter key (A, B, C, or D) to input an answer for each problem. Press enter
to advance to the next problem.

9. After answering the last problem, press Y for yes if you are ready to submit your
work. Then, press enter. (If you press N for no, you will be able to advance
through the problems again.)

10. When the NEO 2 confirms that the assignment is complete (or asks you to wait
while it is saved), press enter. You will be asked to get your TOPS Report at the
printer.

11. When students have finished scoring assignments, click End Session in the
Renaissance Responder scoring software.

Score an Assignment Using a Renaissance Responder

Before students can begin scoring assignments using Renaissance Responders, you
must install the Renaissance Responder scoring software, connect the Renaissance
Receiver to your computer, name the Renaissance Receiver, and set the Renaissance
Place address in the wireless server utility. See the software manual for instructions on
how to complete those tasks.

1. Open the Renaissance Responder scoring software on your computer: For
Windows, select Programs from the Start menu or , and then select
Renaissance Responder. For Macintosh, double-click the Renaissance
Responder icon in the folder in which the program is installed. (You may want
to add a shortcut to Renaissance Responder on your desktop.) Enter your user
name and password; then, click Log In.

2. Turn on the Renaissance Responder by pressing and holding On/Off for a few
seconds.

3. With Join Session highlighted in the main menu, press Select.

4. If necessary, use the arrow buttons to highlight the network (Receiver name)
to which you must connect. Press Enter. (If you are asked if you want to stay
connected to the last network used, press yes (True) or no (False). If you
choose no, choose another network and press Enter.)

5. Enter the form number of the assignment. Then, press Enter.
6. If the Responder tells you to wait until your assignment is retrieved, press Enter again.

7. When the screen shows your name and form number, press yes (True). (If it shows the wrong name, press no (False).) Then, press Enter.

8. Use a letter key (A, B, C, or D) to input an answer for each problem. Press Enter to advance to the next problem.

9. After answering the last problem, press yes (True) if you are ready to submit your work. Then, press Enter. (If you press no (False), you will be able to go through the problems again.)

10. When the Responder confirms that the assignment is complete (or asks you to wait while it is saved), press Enter. You will be asked to get your TOPS Report at the printer.

11. When students have finished scoring assignments, click End Session in the Renaissance Responder scoring software.

Score or Rescore an Assignment Manually

1. From the Assignment Book, click Keyboard Score under Activities on the left.

2. Enter the assignment’s form number and click Score or Rescore.

3. Select answers and click Save.

4. Click Done.

Working with the Intervene Symbol

Clear the Intervene Symbol from the Assignment Book

Note: Typically, teachers will print an exercise if intervening when a student is practicing, and a diagnostic test if intervening when a student is testing or reviewing.

1. From the Assignment Book, click Intervene next to the intervene symbol (red) in the Action column.

2. Choose Generate Exercise or Generate Diagnostic Test and click Next >.

3. Select Assisted-Response (multiple choice) or Free-Response (short answer).

4. Click Generate.

5. If the preference is set to preview assignments before they print, the assignment will open in Adobe Reader (click the buttons to save or print) or the Macintosh Preview program (click the File menu and choose Save or Print).

Printing Reports

View or Print Reports

1. On the Home page in the Accelerated Math task list, click Reports.

2. Click the name of the report you wish to view or print.

3. If the report can be customized, choose options on the Report Options page and then click View Report.

4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser’s print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.
Regenerate a TOPS Report
1. From the Assignment Book, check the box for each student who needs a TOPS Report reprinted.
2. Click TOPS under Reports on the left.
3. If you selected one student, click Regenerate in the Action column for the assignment. (If more than one student was selected, TOPS Reports will automatically generate for the students' most recent assignments.)
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Print a Certificate
1. On the Home page in the Accelerated Math task list, click Reports.
2. Click Certificate under Other Reports.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Working with Goals and Teams

Set Goals
1. On the Home page in the Accelerated Math task list, click Teams & Goals.
2. Click Manage Goals under Goals on the left.
3. Select a class if necessary using the Class drop-down list.
4. Using the Class Marking Period drop-down list, select the class marking period (or All Class Marking Periods) for which you want to set goals. (If you don’t see a Class Marking Period drop-down list, click Select Class Marking Periods. Under Available School Marking Periods on the next page, click Select next to each marking period that you want to use for goals. Then, click Save.)
5. Enter an Objective Goal and a Test % Correct Goal for each student. Note that the Test % Correct Goal must be at least 85 percent.
6. Click Save to save the goals.
7. Click Done.

Add a Team Set
1. On the Home page in the Accelerated Math task list, click Teams & Goals.
2. Click Add Team Set under Teams on the left.
3. Enter the team set name; then, click Add.
4. Click Done.

Add a Team to Team Set
1. On the Home page in the Accelerated Math task list, click Teams & Goals.
2. Click **Manage Teams** in the row of a team set.
3. Click **Add Team**.
4. Enter a new team name; then, click **Add**. Repeat this step for each team you wish to add to the team set.
5. Click **Done**.

**Assign Students to Teams**
1. On the Home page in the Accelerated Math task list, click **Teams & Goals**.
2. Click **Manage Teams** in the row of a team set.
3. The software can automatically divide students among teams, or you can manually select students for each team. Click **Auto Team Select** (to automatically divide students) or **Add/Remove Students** in the row of a team (to manually select students).
4. If you chose to automatically divide students among teams, make any changes to the team selections on the Change Enrollment page. Then, click **Save** and **Done**.
5. If you chose to manually select students, you must work with one team at a time. After clicking **Add/Remove Students** in the row of a team, search for a student, check the box next to the student’s name, and click **Add**. Click **Save** when finished adding students.

**Working with Accelerated Math Groups**

**Create a Group**
1. From the Assignment Book, click **Create Group** under Groups on the left. (Or click **Create Group** next to the **Group** drop-down list.)
2. Enter the group name.
3. Click **Save**. (You can immediately add students to the group; see Add Students to a Group below.)

**Add Students to a Group**
1. From the Assignment Book, click **Manage Groups** under Groups on the left.
2. Click **Add/Remove Students** in the row for a group.
3. Check the box for each student who should be in the group. Then, click **Add**. The students will be added to the list on the left.
4. Click **Save** when finished adding students.

**Assign an Objective List to a Group**
You must assign an objective list to a group before you can print assignments from the group for students. See Assign an Objective List on page A3.

**Accessing Resources and Preferences**

**Access the Library Guide and the Scope and Sequence**
1. On the Home page in the Accelerated Math task list, click **Libraries**.
2. Click the name of the library.
3. In the Library Documentation section, click the title of the document that ends with "SS.PDF" to view the Scope and Sequence. Click the title of the other listed document to view the Library Guide.

Access Math Resource Documents
1. On the Home page in the Accelerated Math task list, click Resources.
2. Click the name of a resource category.
3. Click the name of the document you wish to view.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Access Manuals and Software Tips
1. In the upper-right corner of a Renaissance Place page, click Manuals.
2. Under Accelerated Math, click the name of the document you wish to view.

View or Change Classroom Preferences
1. On the Home page in the Accelerated Math task list, click Preferences.
2. Select a class if necessary using the drop-down list.
3. Click the link for the preference you wish to view or change.
4. If changing a preference, set the desired customization options and click Save.

Using Renaissance Home Connect

Print Informational Letters for Students
1. On the Home page in the Renaissance Home Connect task list, click Reports.
2. Click Informational Letter – English or Informational Letter – Spanish.
4. If the document opens in Adobe Reader, click the Adobe Reader buttons to save or print. (Do not use the browser's print option.) If the document opens in the Macintosh Preview program, click the File menu and choose Save or Print.

Set the Scoring Preference for Renaissance Home Connect
1. On the Home page in the Accelerated Math task list, click Preferences.
2. Select a class if necessary using the drop-down list.
3. Click Renaissance Home Connect.
4. Set whether or not students may score practice assignments and exercises through Renaissance Home Connect. Then, click Save.
Reproducible Forms
# Status of the Class Record Sheet

Teacher: ________________________________  Class: _____________________  Dates: ______________

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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</tr>
</tbody>
</table>

A = Absent            I = Intervention Needed            — = OK

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Completing Assignments

1. Show your work on the assignment or on another sheet of paper.

2. Circle your answers on the assignment as you answer the problems. Write your answer choices in the margin next to each problem number.

3. Check that you worked or tried to work every problem.

4. Finish your assignment before scoring it.

Scoring with a NEO 2 or Renaissance Responder

1. Take out or retrieve a scoring device.

2. Using the device, enter the answers you circled on the assignment. Be sure the question number on the screen matches the question number on the assignment.

3. When finished, check that you entered the answers circled on your assignment.

4. Submit your answers. Go to the printer to pick up your TOPS Report and new assignment. Be sure to take every page that belongs to you.

5. Staple the TOPS Report to your scored assignment and work. Take these papers and new assignment back to your desk.
Filling In the Scan Card

1. Take out the correct scan card for the assignment, or get a new card if needed.

2. If using a new card, write your name on the line and check the box for the assignment type. Fill in the top part of the card with the form number from your assignment.

3. Fill in the bubbles for the answers you circled on the assignment. Be sure the question number on the card matches the question number on the assignment. Press firmly and fill in the bubbles completely.

4. When finished, check that the last problem number on the card and the assignment match and that you marked only one answer for each question. Erase any stray marks.

Scoring with an AccelScan Scanner

1. When it’s your turn to scan, take the following items to the scanner:
   • Your scan card
   • Your assignment
   • Any paper you used for your work

2. Scan your card. Take your TOPS Report and new assignment from the printer. Be sure to take every page that belongs to you.

3. Staple the TOPS Report to your scored assignment and work. Take these papers, new assignment, and scan card back to your desk.
Correcting Mistakes and Preparing for the TOPS Report Discussion

1. Read your TOPS Report to find out which problems you got right and which you got wrong.

2. On your assignment, circle the question numbers for each of the problems you got wrong.

3. Look for any mistakes in your work.

4. Correct the problems, showing all work. Use a different color pencil for correcting work. Circle your new answers.

5. If needed, get help from the textbook, your notes, or other math resources. If you are still having trouble, ask another student to explain how to do the problem.

6. If you have questions, write them down so you remember to ask the teacher during your discussion.

7. When you finish correcting your work, place your TOPS Report in the basket designated for reports to indicate that you are ready to meet with the teacher.
Working in Pairs

• As you begin each problem, try to answer: “What are we supposed to find out?” or “What is the question?”

• Share an idea, and then ask your partner, “What is your idea?”

• If calculations are involved, work on them separately and then compare answers. If your answers are different, review the process and find the error.

• Write cooperatively the steps you used to solve the problem. Discuss whether your answer makes sense.

• Be prepared to share with the class how you and your partner arrived at your answer. Use your own words to talk about your strategies.
Giving Help

A friend may ask you for help with math. That’s great! But simply telling someone the answer is rarely helpful. If you really want to help your friend, allow him or her to find the answer. You can help with these strategies:

• Try to find out exactly where your friend is having trouble by asking, “What doesn’t make sense?”

• Help your friend in these ways:
  – Ask questions that lead to the answer
  – Give hints that focus on the problem and solution
  – Create examples to illustrate the problem

• Let your friend do most of the writing.

• Once your friend seems to have the answer, ask a follow-up question to check understanding.

• When finished with the problem, ask your friend to list the steps he or she used to solve it.
# Student Math Plan – 6 Weeks

Student: __________________________  Grade/Class: ________________  Teacher: ____________________

Goal Period Begin Date: ________________   Goal Period End Date: ________________

<table>
<thead>
<tr>
<th>1. Number of Objectives Mastered</th>
<th>2. Minimum Average Test % Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal: __________  ( Suggested ) Goal: 4 obj./week–Grades 3 &amp; up</td>
<td>Goal: __________  ( Suggested ) Goal: 85% average on regular tests</td>
</tr>
<tr>
<td>Actual: __________  2 obj./week–Grades 1 &amp; 2</td>
<td>Actual: __________</td>
</tr>
</tbody>
</table>

Comments:

Weekly Tally (enter number of objectives)
1. ____  2. ____  3. ____  4. ____  5. ____  6. ____

Weekly Tally (enter average percent)
1. ____  2. ____  3. ____  4. ____  5. ____  6. ____

<table>
<thead>
<tr>
<th>3. Minimum Average Practice % Correct</th>
<th>4. Other Goals __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal: __________  ( Suggested ) Goal: 75% average on practices</td>
<td>Goal: __________</td>
</tr>
<tr>
<td>Actual: __________</td>
<td>Actual: __________</td>
</tr>
</tbody>
</table>

Comments:

Weekly Tally (enter average percent)
1. ____  2. ____  3. ____  4. ____  5. ____  6. ____

Weekly Tally (enter ✔ if goal met)
1. ____  2. ____  3. ____  4. ____  5. ____  6. ____

_____________________________  _____________________________  _____________________________
Student Signature  Teacher Signature  Parent Signature
Student Math Plan – 9 Weeks

Student: __________________________  Grade/Class:  ________________  Teacher: __________________

Goal Period Begin Date:  ________________   Goal Period End Date: __________________

<table>
<thead>
<tr>
<th>1. Number of Objectives Mastered</th>
<th>2. Minimum Average Test % Correct</th>
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<td>Goal: __________  Suggested Goal:</td>
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<tr>
<td>4 obj./week–Grades 3 &amp; up</td>
<td>85% average on regular tests</td>
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<tr>
<td>Actual: __________</td>
<td>Actual: __________</td>
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<td>Comments:</td>
<td>Comments:</td>
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</table>

Weekly Tally (enter number of objectives)

Weekly Tally (enter average percent)

<table>
<thead>
<tr>
<th>3. Minimum Average Practice % Correct</th>
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<tr>
<td>Comments:</td>
<td>Actual: __________</td>
</tr>
</tbody>
</table>

Comments:

Weekly Tally (enter average percent)

Weekly Tally (enter ✔ if goal met)

_____________________________  _____________________________  _____________________________
Student Signature  Teacher Signature  Parent Signature

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# Student Math Plan – 12 Weeks

**Student:** __________________________  **Grade/Class:** ________________  **Teacher:** ________________

**Goal Period Begin Date:** ________________  **Goal Period End Date:** ________________

1. **Number of Objectives Mastered**

   - **Goal:** ________  
     **Suggested Goal:** 4 obj./week–Grades 3 & up
   - **Actual:** ________  
     **Suggested Goal:** 2 obj./week–Grades 1 & 2

   **Comments:**

   **Weekly Tally (enter number of objectives)**

2. **Minimum Average Test % Correct**

   - **Goal:** ________  
     **Suggested Goal:** 85% average on regular tests
   - **Actual:** ________

   **Comments:**

   **Weekly Tally (enter average percent)**

3. **Minimum Average Practice % Correct**

   - **Goal:** ________  
     **Suggested Goal:** 75% average on practices
   - **Actual:** ________

   **Comments:**

   **Weekly Tally (enter average percent)**

4. **Other Goals** __________________________

   - **Goal:** ________
   - **Actual:** ________

   **Comments:**

   **Weekly Tally (enter ✔ if goal met)**

---

**Student Signature** __________________________  **Teacher Signature** __________________________  **Parent Signature** __________________________

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**Student Math Plan – 18 Weeks**

Student: __________________________  Grade/Class:  ________________  Teacher:  ________________

Goal Period Begin Date:  ________________   Goal Period End Date:  ________________

<table>
<thead>
<tr>
<th>1. Number of Objectives Mastered</th>
<th>2. Minimum Average Test % Correct</th>
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<tbody>
<tr>
<td>Goal: _________  <strong>Suggested Goal:</strong> 4 obj./week–Grades 3 &amp; up</td>
<td>Goal: _________  <strong>Suggested Goal:</strong> 85% average on regular tests</td>
</tr>
<tr>
<td>Actual: _________  2 obj./week–Grades 1 &amp; 2</td>
<td>Actual: _________</td>
</tr>
</tbody>
</table>

Comments:

**Weekly Tally (enter number of objectives)**

| 1. ___  | 2. ___  | 3. ___  | 4. ___  | 5. ___  | 6. ___  |
| 13. ___ | 14. ___ | 15. ___ | 16. ___ | 17. ___ | 18. ___ |

| 1. ___  | 2. ___  | 3. ___  | 4. ___  | 5. ___  | 6. ___  |
| 13. ___ | 14. ___ | 15. ___ | 16. ___ | 17. ___ | 18. ___ |

<table>
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<tr>
<th>3. Minimum Average Practice % Correct</th>
<th>4. Other Goals</th>
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<td>Goal: _________</td>
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<tr>
<td>Actual: _________</td>
<td>Actual: _________</td>
</tr>
</tbody>
</table>

Comments:

**Weekly Tally (enter average percent)**

| 1. ___  | 2. ___  | 3. ___  | 4. ___  | 5. ___  | 6. ___  |
| 13. ___ | 14. ___ | 15. ___ | 16. ___ | 17. ___ | 18. ___ |

| 1. ___  | 2. ___  | 3. ___  | 4. ___  | 5. ___  | 6. ___  |
| 13. ___ | 14. ___ | 15. ___ | 16. ___ | 17. ___ | 18. ___ |

| 1. ___  | 2. ___  | 3. ___  | 4. ___  | 5. ___  | 6. ___  |
| 13. ___ | 14. ___ | 15. ___ | 16. ___ | 17. ___ | 18. ___ |

_____________________________  _____________________________  _____________________________
Student Signature  Teacher Signature  Parent Signature

© 2013 Renaissance Learning, Inc. Reproducible Form
# Student Math Plan

Student: __________________________  Grade/Class:  ________________  Teacher:  __________________

## Marking Period 1

<table>
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<th>Goal period begin date: ____________________________</th>
<th>Goal period end date: ____________________________</th>
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<tr>
<td>4 obj./week–Grades 3 &amp; up</td>
<td>85% average on regular tests</td>
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<tr>
<td>2 obj./week–Grades 1 &amp; 2</td>
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## Marking Period 2

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## Marking Period 3

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<td>2 obj./week–Grades 1 &amp; 2</td>
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<td>Actual: _________</td>
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# Student Math Plan

## Marking Period 4
Goal period begin date: ____________________________    Goal period end date: ____________________________

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<tr>
<td>Actual: __________</td>
<td>2 obj./week–Grades 1 &amp; 2</td>
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| Goal: __________ | Suggested Goal: 85% average on regular tests |
| Actual: __________ | Comments: |

## Marking Period 5
Goal period begin date: ____________________________    Goal period end date: ____________________________

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<tr>
<td>Actual: __________</td>
<td>2 obj./week–Grades 1 &amp; 2</td>
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| Goal: __________ | Suggested Goal: 85% average on regular tests |
| Actual: __________ | Comments: |

## Marking Period 6
Goal period begin date: ____________________________    Goal period end date: ____________________________

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<tr>
<td>Actual: __________</td>
<td>2 obj./week–Grades 1 &amp; 2</td>
</tr>
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| Goal: __________ | Suggested Goal: 85% average on regular tests |
| Actual: __________ | Comments: |

_____________________________  _____________________________  _____________________________
Student Signature  Teacher Signature  Parent Signature

© 2013 Renaissance Learning, Inc. Reproducible Form
Math Student Goal Chart

Name: _________________________________________________________  Date: _____________________

Number of Objectives Mastered

Week
Report and Assignment Examples
Objectives: (4 of 4 listed)

86. Multiply a decimal number through thousandths by 10, 100, or 1,000
87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000
85. <Review> Divide a unit fraction by a whole number
86. <Review> Divide a whole number by a fraction, with a whole number quotient using a model

49. Divide: $\frac{1}{3} \div 12$  
   [A] 4  
   [B] $\frac{1}{36}$  
   [C] $\frac{1}{37}$  
   [D] $\frac{1}{4}$

50. To raise money for charity, Duc and his friends rode 22.6 miles in a bike event. As a group, they had a total of $1,000 pledged for each mile they rode. How much money did Duc and his friends raise?
   [A] $226  
   [B] $2,260,000  
   [C] $22,600  
   [D] $226,000

51. $1,000 \times 4.9$
   [A] 490  
   [B] 4.9000  
   [C] 4,900  
   [D] 49

52. 100 $\times 2.7$
   [A] 2,700  
   [B] 2,700  
   [C] 27  
   [D] 270

53. Use the number line to find $6 \div \frac{2}{3}$

54. At work, Nico got a raise of $0.75 per hour. He plans to put the money from the raise toward a summer trip. After 1,000 hours, how much money will Nico have put toward the trip?
   [A] $75.00  
   [B] $7.50  
   [C] $750.00  
   [D] $1,000.75
# Practice TOPS Report

**for Max Bryson**  
Printed Thursday, February 2, 2012 10:45:20 AM

**School:** West Middle School  
**Class:** Math 5B  
**Teacher:** J. Evans  
**Grade:** 5

## Number Correct: 11 / 14 (79%)

### Incorrect Responses (3)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem</th>
<th>Your Answer</th>
<th>Correct Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000</td>
<td>54</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000</td>
<td>60</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000</td>
<td>62</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

### Objectives on this Practice (4)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Results</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>86. Multiply a decimal number through thousandths by 10, 100, or 1,000</td>
<td>6 / 6 100%</td>
<td>10 / 12 83%</td>
</tr>
<tr>
<td>87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000</td>
<td>3 / 6 50%</td>
<td>5 / 12 42%</td>
</tr>
<tr>
<td>65. Divide a unit fraction by a whole number</td>
<td>1 / 1 100%</td>
<td>3 / 3 100%</td>
</tr>
<tr>
<td>66. Divide a whole number by a fraction, with a whole number quotient using a model</td>
<td>1 / 1 100%</td>
<td>3 / 3 100%</td>
</tr>
</tbody>
</table>

### Overall Progress

<table>
<thead>
<tr>
<th>Average Percent Correct</th>
<th>Objective Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marking Period (20% Complete)</strong></td>
<td>Ready to Test: 4</td>
</tr>
<tr>
<td>Practice %: 82²</td>
<td>Goal for Marking Period: 36</td>
</tr>
<tr>
<td>Test %: 88</td>
<td>Total Mastered this Marking Period: 7 (19% of Goal)</td>
</tr>
<tr>
<td>Review %: 82</td>
<td>Total Mastered this Year: 48</td>
</tr>
<tr>
<td><strong>School Year (55% Complete)</strong></td>
<td></td>
</tr>
<tr>
<td>Practice %: 82²</td>
<td></td>
</tr>
<tr>
<td>Test %: 89³</td>
<td></td>
</tr>
<tr>
<td>Review %: 88</td>
<td></td>
</tr>
</tbody>
</table>

---

- Designates a core objective. Core objectives identify the most critical objectives to learn at each grade level.

²Includes Exercise Results
³Includes Diagnostic Test Results
⁴Review Objectives
Objectives: (4 of 4 listed)
83. Estimate the sum of two decimal numbers through thousandths and less than 1 by rounding to a specified place
84. Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place
85. WP: Estimate the sum or difference of two decimal numbers through thousandths using any method
86. Multiply a decimal number through thousandths by 10, 100, or 1,000

21. Estimate the difference by rounding each number to the nearest tenth: 0.56 – 0.23
   [A] 0.2        [B] 0.5        [C] 0.3        [D] 0.4

    × 1,000

23. Estimate the sum by rounding each number to the nearest tenth: 0.366 + 0.496
    [A] 0.8  [B] 0.7  [C] 1.0  [D] 0.9

24. Ellie bought some pens at the school store for $0.59. After paying for the pens, she had $0.26 left. Which amount is a reasonable estimate of the money Ellie had to start with?
    [A] $1.10  [B] $0.60  [C] $0.30  [D] $0.90

    × 100

26. Molly is buying fruit juice. She saves $0.69 by buying the juice at a sale price of $4.99. Which amount is a reasonable estimate of the regular price of the juice?
    [A] $4.00  [B] $6.50  [C] $5.50  [D] $3.50

27. Estimate the sum by rounding each number to the nearest tenth: 0.49 + 0.86

28. Multiply: 3.96 × 10

29. Estimate the difference by rounding each number to the nearest tenth: 0.843 – 0.444
    [A] 0.4  [B] 0.3  [C] 0.5  [D] 0.2
Test TOPS Report for Max Bryson
Printed Friday, February 3, 2012 10:44:21 AM

School: West Middle School
Class: Math 5B
Teacher: J. Evans
Grade: 5

Number Correct: 17 / 20 (85%)  Objectives Mastered: 3

Incorrect Responses (3)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Problem</th>
<th>Your Answer</th>
<th>Correct Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>84.</td>
<td>Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>29</td>
<td>B</td>
</tr>
<tr>
<td>85.</td>
<td>WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>33</td>
<td>A</td>
</tr>
<tr>
<td>85.</td>
<td>WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>35</td>
<td>D</td>
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</table>

Objectives on this Practice (4)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Results</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>83.</td>
<td>Estimate the sum of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>5 / 5 100%</td>
</tr>
<tr>
<td>84.</td>
<td>Estimate the difference of two decimal numbers through thousandths and less than 1 by rounding to a specified place</td>
<td>4 / 5 80%</td>
</tr>
<tr>
<td>85.</td>
<td>WP: Estimate the sum or difference of two decimal numbers through thousandths using any method</td>
<td>3 / 5 60%</td>
</tr>
<tr>
<td>86.</td>
<td>Multiply a decimal number through thousandths by 10, 100, or 1,000</td>
<td>5 / 5 100%</td>
</tr>
</tbody>
</table>

Overall Progress

<table>
<thead>
<tr>
<th>Average Percent Correct</th>
<th>Objective Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marking Period (20% Complete)</td>
<td>School Year (55% Complete)</td>
</tr>
<tr>
<td>Practice %: 82</td>
<td>85</td>
</tr>
<tr>
<td>Test %: 87</td>
<td>88</td>
</tr>
<tr>
<td>Review %: 82</td>
<td>88</td>
</tr>
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</table>

Teacher

Comments:

○ Designates a core objective. Core objectives identify the most critical objectives to learn at each grade level.

---

Form: 3202
Problems: 21-40
Printed: 2/3/12 10:44:21 AM
Completed: 2/3/12 10:44:13 AM

A32
# Status of the Class Report

**School:** West Middle School  
**Class:** Math 5B  
**Teacher:** Evans, Jennifer

## Assignment Status

<table>
<thead>
<tr>
<th>Student</th>
<th>Action Needed</th>
<th>Objectives Ready to Test</th>
<th>Last Assignment Completed</th>
<th>Outstanding Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryson, Max</td>
<td>Assign Obj.</td>
<td>1</td>
<td>Regular Test 02/03/12</td>
<td>02/02/12</td>
</tr>
<tr>
<td>Chavez, Janine</td>
<td>1</td>
<td></td>
<td>Regular Test 02/03/12</td>
<td>02/02/12</td>
</tr>
<tr>
<td>Huberman, Lucas</td>
<td>I Intervene (1), Assign Obj.</td>
<td>1</td>
<td>Practice 02/03/12</td>
<td>02/03/12</td>
</tr>
<tr>
<td>Keller, Sarah</td>
<td>0</td>
<td></td>
<td>Practice 02/02/12</td>
<td>02/02/12</td>
</tr>
<tr>
<td>Lee, Rebecca</td>
<td>Print Test</td>
<td>5</td>
<td>Practice 02/03/12</td>
<td>02/03/12</td>
</tr>
<tr>
<td>Marzano, Emily</td>
<td>I Intervene (1)</td>
<td>2</td>
<td>Practice 01/31/12</td>
<td>01/31/12*</td>
</tr>
<tr>
<td>Reynolds, Aaron</td>
<td>I Intervene (2)</td>
<td>1</td>
<td>Regular Test 02/03/12</td>
<td>02/02/12</td>
</tr>
<tr>
<td>Santiago, Antonio</td>
<td>2</td>
<td></td>
<td>Practice 02/03/12</td>
<td>02/03/12</td>
</tr>
<tr>
<td>Showers, Nicole</td>
<td>1</td>
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<td>Practice 02/03/12</td>
<td>02/03/12</td>
</tr>
<tr>
<td>Schaeffer, Robert</td>
<td>Assign Obj.</td>
<td>0</td>
<td>Practice 02/01/12</td>
<td>02/02/12</td>
</tr>
<tr>
<td>Taylor, Maisha</td>
<td>3</td>
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<td>Practice 02/03/12</td>
<td>02/03/12</td>
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<tr>
<td>Williams, Devin</td>
<td>Print Test</td>
<td>5</td>
<td>Exercise 02/03/12</td>
<td>02/02/12</td>
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</tbody>
</table>

## Intervention Needed

<table>
<thead>
<tr>
<th>Student</th>
<th>Assignment Type</th>
<th>Objectives</th>
<th>Library Objective Code</th>
<th>Overall Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huberman, Lucas</td>
<td>Practice</td>
<td>86. Multiply a decimal number through thousandths by 10, 100, or 1,000</td>
<td>DMG5-086</td>
<td>7/18 (39%)</td>
</tr>
<tr>
<td>Marzano, Emily</td>
<td>Practice</td>
<td>87. WP: Multiply a decimal number through thousandths by 10, 100, or 1,000</td>
<td>DMG5-087</td>
<td>6/18 (33%)</td>
</tr>
<tr>
<td>Reynolds, Aaron</td>
<td>Review</td>
<td>68. WP: Multiply or divide a whole number by a unit fraction</td>
<td>DMG5-088</td>
<td>4/8 (50%)</td>
</tr>
<tr>
<td></td>
<td>Regular Test</td>
<td>80. WP: Add or subtract decimal numbers through thousandths</td>
<td>DMG5-080</td>
<td>6/10 (60%)</td>
</tr>
</tbody>
</table>

## Objectives Causing Difficulties

**Minimum Students:** 3

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Assignment Type</th>
<th>Student</th>
<th>Library Objective Code</th>
<th>Overall Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>87. WP: Multiply a decimal through thousandths by 10, 100, or 1,000</td>
<td>Practice</td>
<td>Bryson, Max</td>
<td>DMG5-087</td>
<td>5/12 (42%)</td>
</tr>
<tr>
<td></td>
<td>Practice</td>
<td>Marzano, Emily</td>
<td>DMG5-087</td>
<td>6/16 (33%)</td>
</tr>
<tr>
<td></td>
<td>Practice</td>
<td>Santiago, Antonio</td>
<td>DMG5-087</td>
<td>3/7 (43%)</td>
</tr>
</tbody>
</table>

*Designates a core objective. Core objectives identify the most critical objectives to learn at each grade level.

*Diagnostic Test
## Status of the Class Report
Printed Friday, February 3, 2012 3:50:12 PM

**School:** West Middle School

### Class: Math 5B
**Teacher:** Evans, Jennifer

#### Outstanding Assignments

<table>
<thead>
<tr>
<th>Student</th>
<th>School Days Since Last Work Printed</th>
<th>Practice</th>
<th>Exercise</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bryson, Max</td>
<td>Today</td>
<td>3195</td>
<td>2513</td>
<td>2510</td>
</tr>
<tr>
<td>Chavez, Janine</td>
<td>1</td>
<td>2561</td>
<td>21-40</td>
<td>2510</td>
</tr>
<tr>
<td>Huberman, Lucas</td>
<td>1</td>
<td>3341</td>
<td>3237</td>
<td>2510</td>
</tr>
<tr>
<td>Keller, Sarah</td>
<td>1</td>
<td></td>
<td></td>
<td>2510</td>
</tr>
<tr>
<td>Lee, Rebecca</td>
<td>Today</td>
<td></td>
<td></td>
<td>2525</td>
</tr>
<tr>
<td>Marzano, Emily</td>
<td>3</td>
<td>2534</td>
<td>2534</td>
<td>2525</td>
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<tr>
<td>Reynolds, Aaron</td>
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<td>2525</td>
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<tr>
<td>Santiago, Antonio</td>
<td>Today</td>
<td>2540</td>
<td>3074</td>
<td>2525</td>
</tr>
<tr>
<td>Showers, Nicole</td>
<td>Today</td>
<td>3776</td>
<td>3776</td>
<td>2525</td>
</tr>
<tr>
<td>Schaeffer, Robert</td>
<td>1</td>
<td>3315</td>
<td>3315</td>
<td>3074</td>
</tr>
<tr>
<td>Taylor, Maisha</td>
<td>Today</td>
<td>2835</td>
<td>2835</td>
<td>3074</td>
</tr>
<tr>
<td>Williams, Devin</td>
<td>1</td>
<td>2526</td>
<td>2526</td>
<td>3074</td>
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#### Class Summary

<table>
<thead>
<tr>
<th>Action Summary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Need Assignments Printed</td>
<td>0</td>
</tr>
<tr>
<td>Students Need Obj's Assigned</td>
<td>3</td>
</tr>
<tr>
<td>Students Need Tests Printed</td>
<td>2</td>
</tr>
<tr>
<td>Students Need Intervention</td>
<td>3</td>
</tr>
<tr>
<td>Objectives with three or more students experiencing difficulty</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outstanding Assignments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practices</td>
<td>12</td>
</tr>
<tr>
<td>Exercises</td>
<td>1</td>
</tr>
<tr>
<td>Regular Tests</td>
<td>2</td>
</tr>
<tr>
<td>Diagnostic Tests</td>
<td>1</td>
</tr>
</tbody>
</table>

*Diagnostic Test*
# Diagnostic Report

**School:** West Middle School  
**Printed:** Friday, February 3, 2012 3:51:38 PM  
**Reporting Period:** 1/23/2012 – 3/26/2012  
**(3rd Quarter)**

**Report Options**  
**Reporting Parameter Group:** All Demographics [Default]  
**Group By:** Class

## Class: Math 5B  
**Teacher:** Evans, Jennifer

| Student          | Diagnostic Codes | Diagnostic Code | Practice | Exercise | Regular Test | Diagnostic Test | Total Tests | Review | Engaged Time<sup>4</sup> | Objectives Mastered | Average Number Per Week | Regular Test | Diagnostic Test | Total Tests | Average Objective Level |
|------------------|-------------------|-----------------|----------|----------|--------------|-----------------|-------------|--------|--------------------------|----------------------|-----------------------|---------------|------------------------|-------------|------------------------|-------------|
| Bryson, Max      |                   | T               | 83       | 80       | 87           | –               | 87          | 82     | 50                        |                      | 5.0                   | 10            | –                      | 10          | 5.0                    |
| Chavez, Janine   |                   | T               | 79       | 82       | 82<sup>1</sup> | –               | 82          | 82     | 35                        |                      | 3.5                   | 7             | –                      | 7           | 5.0                    |
| Huberman, Lucas  | I, M              |                 | 78       | 79       | 85           | –               | 85          | 82     | 15                        |                      | 1.5                   | 3             | –                      | 3<sup>4</sup> | 5.0                    |
| Keller, Sarah    |                   |                 | 85       | 83       | 85           | 85              | 85          | 84     | 45                        |                      | 4.5                   | 7             | 2                      | 9           | 5.3                    |
| Lee, Rebecca     |                   |                 | 84       | 79       | 89           | –               | 89          | 88     | 40                        |                      | 4.0                   | 8             | –                      | 8           | 5.0                    |
| Marziano, Emily  |                   |                 | 72<sup>4</sup> | 70       | 85           | –               | 85          | 80     | 40                        |                      | 4.0                   | 8             | –                      | 8           | 5.0                    |
| Reynolds, Aaron  | I, P, T, R        |                 | 74<sup>4</sup> | 76       | 80<sup>4</sup> | –               | 80          | 78<sup>4</sup> | 25                  |                      | 2.5                   | 5             | –                      | 5           | 4.5                    |
| Santiago, Antonio|                   |                 | 82       | 80       | 86           | –               | 86          | 84     | 45                        |                      | 4.5                   | 9             | –                      | 9           | 5.0                    |
| Showers, Nicole  |                   |                 | 80       | 84       | 88           | –               | 88          | 82     | 25                        |                      | 2.5                   | 5             | –                      | 5           | 4.7                    |
| Scheffer, Robert |                   |                 | 79       | 81       | 88           | –               | 88          | 84     | 40                        |                      | 4.0                   | 8             | –                      | 8           | 5.0                    |
| Taylor, Malisha  |                   |                 | 82       | 83       | 88           | 90              | 89          | 86     | 50                        |                      | 5.0                   | 4             | 6                      | 10          | 5.0                    |
| Williams, Devin  | R                 |                 | 77       | 79       | 90           | –               | 90          | 78<sup>4</sup> | 45                  |                      | 4.5                   | 9             | –                      | 9           | 5.0                    |
| Average          |                   |                 | 80       | 80       | 86           | 88              | 86          | 83     | 38                        |                      | 3.8                   | 7             | 4                      | 7           | 5.0                    |

### Diagnostic Code Summary

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>% of Students</th>
<th>Diagnostic Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>25</td>
<td>I</td>
<td>Teacher intervention needed (see Status of the Class Report)</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>P</td>
<td>Practice percentage lower than 75%</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>T</td>
<td>Regular Test percentage lower than 85%</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>R</td>
<td>Review percentage lower than 80%</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>M</td>
<td>Less than 1/2 of the median objectives mastered (1/2 the median = 4)</td>
</tr>
</tbody>
</table>

**Students At Risk:** 5 of 12 (42%)

---

<sup>1</sup> Trouble value  
<sup>4</sup> Engaged Time per Day: An estimate based on number of objectives mastered and an anticipated 40 minutes per day of math practice.
### Class: Math 5B
Teacher: Evans, Jennifer

<table>
<thead>
<tr>
<th>Student</th>
<th>Marking Period</th>
<th>Objectives Mastered</th>
<th>Practice Percent Correct</th>
<th>Regular Test Average % Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Goal</td>
<td>Actual</td>
<td>% of Goal</td>
</tr>
<tr>
<td>Showers, Nicole</td>
<td>9/01/11-11/02/11 (1st Quarter)</td>
<td>28</td>
<td>31</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>11/03/11-1/20/12 (2nd Quarter)</td>
<td>36</td>
<td>44</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>1/23/12-3/28/12 (3rd Quarter)</td>
<td>36</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>3/29/12-6/12/12 (4th Quarter)</td>
<td>36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Schaeffer, Robert</td>
<td>9/01/11-11/02/11 (1st Quarter)</td>
<td>28</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>11/03/11-1/20/12 (2nd Quarter)</td>
<td>36</td>
<td>37</td>
<td>103</td>
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<tr>
<td></td>
<td>1/23/12-3/28/12 (3rd Quarter)</td>
<td>36</td>
<td>6</td>
<td>22</td>
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<tr>
<td></td>
<td>3/29/12-6/12/12 (4th Quarter)</td>
<td>36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Taylor, Maisha</td>
<td>9/01/11-11/02/11 (1st Quarter)</td>
<td>28</td>
<td>33</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>11/03/11-1/20/12 (2nd Quarter)</td>
<td>36</td>
<td>45</td>
<td>125</td>
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<tr>
<td></td>
<td>1/23/12-3/28/12 (3rd Quarter)</td>
<td>36</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>3/29/12-6/12/12 (4th Quarter)</td>
<td>36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Williams, Devin</td>
<td>9/01/11-11/02/11 (1st Quarter)</td>
<td>28</td>
<td>29</td>
<td>104</td>
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<tr>
<td></td>
<td>11/03/11-1/20/12 (2nd Quarter)</td>
<td>36</td>
<td>49</td>
<td>136</td>
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<td>1/23/12-3/28/12 (3rd Quarter)</td>
<td>36</td>
<td>9</td>
<td>25</td>
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<tr>
<td></td>
<td>3/29/12-6/12/12 (4th Quarter)</td>
<td>36</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

### Class Summary

<table>
<thead>
<tr>
<th>Marking Period</th>
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* Includes Exercise results
Team Set: Math 5B

The percent of team goal achieved is equal to the number of objectives mastered by team members divided by the team goal. For this calculation, the number of objectives mastered by a team member is limited to his or her individual goal. This is done to prevent strong team members from having too great an effect on the team's achievement.
## Team Status Report

**Accelerated Math Live**

**School:** West Middle School  
**Reporting Period:** 3/29/2012-6/12/2012  
**Reporting:** (4th Quarter)

### Team Set: Math 5B

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### Team Set Summary: 2 Teams

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