

Mastering Math Facts System

Step-by-Step

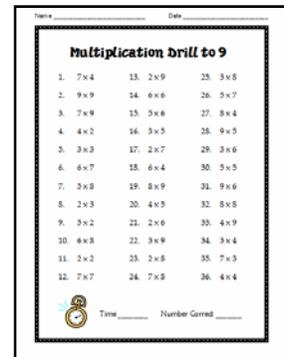
Each chapter in Mastering Math Facts offers loads of resources for implementing the Mastering Math Facts system. The steps below describe that system and provide references to the appropriate chapters with additional information.

1. Teach for Understanding

If your students are new to multiplication and division or don't have a grasp of these concepts, start with the activities in Chapters 3 and 4. If the problem is one of poor mastery rather than lack of understanding, do a quick review and move on.

2. Assess Computational Fluency

Use one of the multiplication worksheets on page 90 or 91 to establish a baseline score for each student. Have everyone begin at the same time and raise their hands as they finish. Use the Math Fact Record on page 75 or 76 to record each student's time. Then score the worksheets and record each students' number correct.



3. Establish Goals and Rewards



Students need to know their times tables with 100% accuracy, but you can adjust the amount of time they are permitted to complete their drill sheets. Suggested times are shown at right, but you can modify as needed. After letting your class know the goal they are working toward, introduce the reward system you are planning to use. One particularly effective program, "Here's the Scoop on Multiplication," is described in complete detail on pages 100 - 101.

4. Practice Math Facts Daily

You can start your students with the math review games in Chapter 5, or jump directly into the drill and practice activities in Chapter 6. No matter which method you use, you'll need to devote about 15 minutes a day to practicing times tables. The Daily Quick Drill method described on pages 80 - 86 is very effective and takes only minutes a day. Using this method you can quiz your students on each individual math fact, day by day. Introduce one math game a week and place it in a learning center. To find out more about math centers, check out **Math Stations for Middle Grades** at www.lauracandler.com. You can find flashcards at the end of this book starting on page 112, which can be used for drill and practice or a variety of math games.



Suggested Goals

9's Worksheet

3rd grade - 5 minutes
4th grade - 4 minutes
5th grade - 3 minutes

12's Worksheet

3rd grade - 6 minutes
4th grade - 5 minutes
5th grade - 4 minutes

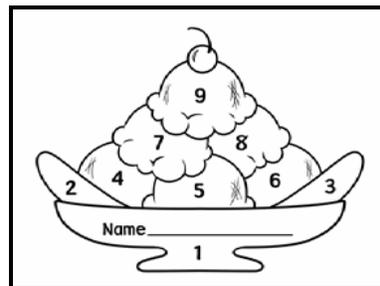
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Step-by-Step Continued

5. Track Progress

One of the most important elements of the Mastering Math Facts system is how you track student progress. You'll need to keep a master chart yourself that serves as the official record, and you can use one of the Math Fact Records (page 75 or 76) to do this. However, you may also want students to use a more public display, an individual tracking chart, or both. If you are using the "Here's the Scoop on Multiplication" method, you'll find ice cream cone and scoop patterns as well as ice cream sundae patterns in Chapter 7. Many teachers are comfortable with a public display of progress because it encourages students to cheer each other on and to help those who are struggling. However, others prefer that students keep a private record of progress, and the sundae pattern is perfect for that. The sundae method also works well if you have limited wall space.

Math Fact Record 0 - 10										
	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										



6. Reassess and Reteach

Even if you use the Daily Quick Drill method, you will need to assess students on their mixed practice performance. Just because students knows their 6's, 7's, and 8's individually, it doesn't mean they are proficient when those math facts are mixed together. Use the same worksheet you used in Step 2 to assess fluency, and compare their new times and scores to the baseline scores you collected earlier. When students reach the goal time established earlier, allow them to color their cherry or put a blob of whipped cream on top of their sundae or top ice cream scoop. If they have not reached their goal, continue with daily drills and math games.

7. Celebrate!

When everyone in the class has passed his or her times tables, celebrate in some way. An ice cream party is an easy celebration, but other class rewards may work equally well. This is a time to recognize students for a job well done!

