

MATHFACTS IN A FLASH: INTRODUCTION TO MATHFACTS IN A FLASH SOFTWARE

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. Students move through a progression of levels in the software by meeting time and accuracy goals. The software keeps track of students' work on each level, and detailed reports give you an instant snapshot of student progress.

Students have many options for practicing math facts: on a classroom computer, with a NEO 2 or Renaissance Responder, through Renaissance Home Connect via the Internet, with flash cards or practice worksheets printed from the software, or with other resources you have on hand. Students can choose to practice math facts in Spanish when logged in to Renaissance Place on a classroom computer or NEO 2, or when working through Renaissance Home Connect. Students need to spend enough time practicing math facts to realize the benefits of practice, but not so much time that practice becomes tedious. Between five and 15 minutes a day of practicing math facts, at least three days a week, is about right for most students.

Let's now look at how students master levels in the software:

1. *Take a baseline test for a level.* Students begin each level by taking a timed, 40-item test (or "baseline test") to determine whether they need additional practice at the level or can move ahead. The baseline test also identifies missed items, if any, to include in subsequent practice sessions. At the end of the test, students see time and accuracy scores onscreen as well as any missed facts. If students master the level—by achieving 100 percent within the time limit—they automatically advance to the next level and can start working on it right away. If not, students practice at the level before testing again.
2. *Practice to improve speed and/or accuracy.* Practices in the software have a minimum of 20 problems. They are comprised of those missed on the baseline test, those identified as the most commonly difficult for the level, and additional problems needed to meet the minimum number of problems. If students miss a problem while practicing, they see corrective feedback onscreen and then reattempt the problem. At the end of a practice, students see an accuracy score as well as any missed facts; practices are not timed. Students then choose to practice again or take a test.
3. *Test to attempt mastery.* After sufficient practice, students attempt to master the level by taking another 40-item timed test. Just as with the baseline test, students must answer all problems correctly within the time limit to master the level. At the end of the test, they see their time and accuracy scores onscreen as well as any missed facts. If students master the level, they automatically advance to the next one and can start working on it right away. They can also try for a lower time goal on the mastered level. If students don't master the level, they either return to practicing or attempt another test.

For more information about using MathFacts in a Flash with students, please see *Getting Results with MathFacts in a Flash* which is available as a free PDF download on our website at www.renlearn.com. Also keep in mind that some students may need to develop conceptual understanding and 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*. The guides explain how to help students develop number sense and a complete understanding of fraction numbers and include various protocols to diagnose errors, address them, and evaluate results. Both guides are available for purchase on our website at www.renlearn.com.