

Getting the Most out of **STAR Assessments™**

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Introduction

STAR assessments are computer-adaptive tests designed to give you accurate, reliable, and valid data quickly so that you can make good decisions about instruction and intervention. STAR Reading, STAR Math, and STAR Early Literacy include skills-based test items, learning progressions for instructional planning, and in-depth reports. They bridge testing and instruction like never before.

The purpose of this book is to help educators get the most out of STAR assessments. Because the tests can be used for multiple purposes, you may find some chapters are more pertinent to your aims than others. In Chapter 1, we describe how the tests work and the kind of data they generate; it is essential reading for all educators. Chapter 2 provides guidance on developing an assessment plan and may be most relevant to administrators and others who are responsible for district- or school-level test administration. In later chapters, we explain how to best use the tests for various purposes: universal screening, progress monitoring, instructional planning, estimating proficiency on state tests, estimating mastery of state standards and Common Core State Standards, and measuring growth. You may wish to focus on the chapters that relate directly to your assessment aims, or you may want to read them all to gain an understanding of all that STAR assessments can do. Final chapters provide answers to frequently asked questions and instructions for common software tasks, and are a resource for all readers. To make the book useful to a wide audience of educators, we minimize technical terms while explaining the concepts that are important to know. Renaissance Place software contains technical manuals for anyone who wants to examine the psychometric data more closely.

We believe STAR assessments are the perfect tools for data-driven schools. They are practical and sound, and provide a wealth of information about your students' reading and math skills. We hope the information you find in this guide will help and inspire you. It is, however, only an introduction. To learn about more professional-development opportunities, including consultation on your own student data, visit our website at www.renaissance.com.

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STAR Basics

The only way to know whether learning is taking place is to measure it. Once you do that you can do a host of other things. You can provide students with appropriate materials. You can identify students who need help. You can analyze problems occurring within grades or schools, set learning goals, and make plans for meeting those goals. And you can determine whether the instruction and intervention you provide are effective.

STAR assessments are uniquely capable of facilitating all of these tasks. Thanks to computer-adaptive technology, students complete the tests quickly, and teachers and administrators receive the results immediately. Moreover, STAR tests are accurate, reliable, and valid, and are highly rated for screening and progress-monitoring by the National Center on Response to Intervention.

There are three STAR assessments: STAR Early Literacy, STAR Reading, and STAR Math. In this chapter, we tell you for whom they are designed, how they work, and the type of data they generate. We also provide guidelines for administering the tests. We recommend that all educators who will be administering STAR tests or analyzing their data read this chapter carefully.

For Whom Are STAR Assessments Designed?

STAR Early Literacy is designed for students in the early stages of literacy development. These students are usually in pre-kindergarten through third grade, but students in any grade, such as special education students or English language learners, can take the test. STAR Reading and STAR Math are designed for students in grades 1 through 12. (They can be used with kindergarten students, but they were not normed with students in that grade.) A standard administration requires that a student have a sight vocabulary of at least 100 words. This means the student is able to read early-reader books or can work through the reading or math practice questions at the beginning of the test. For students who have an individualized education plan (IEP) that requires audio support, you can turn on a preference in STAR Math that activates this kind of assistance. Adding audio support does not compromise the reliability and validity of the assessment.

STAR assessments measure specific skills as well as overall early literacy, reading, and math ability. They compare students' achievement to that of students across the nation, estimate mastery of state standards and Common Core State Standards, and report growth over time. STAR Reading and STAR Math also estimate proficiency on state tests.

Test Frequency

Schools that use STAR for screening purposes typically administer it in fall, winter, and spring. If a school wants to see a trend line that estimates proficiency on state tests, they administer an additional STAR Reading and/or STAR Math test in late fall. Teachers who monitor student progress more closely or use the data for instructional planning do more frequent testing. See the chart in Chapter 2 for an example of a testing pattern.

How STAR Assessments Work

Students take STAR tests on desktop, laptop, or tablet computers by using a web browser to access STAR assessments via Renaissance Place. With an iPad students can also test by running “STAR Apps on iPad.” The software delivers multiple-choice items one by one. Students select an answer using a keyboard, mouse, or touchscreen, and then press Enter, or click or tap Next. (Sample items are shown on pages 5 to 7.) When taking STAR Math students follow a protocol: they use blank work paper and a pencil but not calculators or reference materials, unless provided online by the software. After a test is completed, the software calculates a score, and teachers and administrators view and analyze reports that show results for an individual, class, grade, or school.

STAR assessments can provide accurate data in a short amount of time because they combine computer-adaptive technology with a specialized psychometric test design. The best way to understand how this works is to walk through the test-taking experience.

Students start the test. You begin by explaining the test to your students using the pretest instructions. (The appendix tells you where to locate these in the software.) These instructions describe what the test looks like, how to answer questions, and what happens if a student doesn’t answer a question in the time allowed. Each student then takes the test at a computer. He or she logs in with a unique user name and password, which can be found in the Users area of Renaissance Place. If students are taking STAR Early Literacy and have not been tested within the last 90 days, the software plays a video that demonstrates how to take the test and follows it with a hands-on exercise that gives students practice using the mouse, keyboard, or iPad touchscreen. If students show speed and accuracy with three items in a row, the software delivers practice items to see if they understand how to select an answer. Subsequent tests also include practice items. If students can answer three out of five of those questions correctly, the test proceeds. Students who are taking STAR Reading or STAR Math do not see a demonstration video; however, if they have not been tested within the last 180 days, the software presents practice questions before delivering actual test questions.

The software adjusts the difficulty of every item. After the practice session, the software delivers a test item based on the student’s estimated ability level. If the student answers the item correctly, the software bumps up the difficulty level of the next item. If the student answers incorrectly, the software lowers the difficulty level of the next item. The same thing happens with the next item and the next. By continually adjusting the difficulty of an item to what the student has shown she can or cannot do, the software zeroes in on an accurate assessment of ability. We use a similar procedure in our everyday lives. As an example, let’s suppose you are new to weight lifting. Perhaps you read in a book that the average person of your age and gender can

Algebra and Geometry Tests

STAR Math includes algebra and geometry tests for students in grades 7 through 12. (The algebra test covers content for Algebra 1 and Algebra 2.) Each test consists of 34 items. Scaled scores appear on Diagnostic, Summary, and Growth reports. The Diagnostic Report also includes domain and skill area scores for the Common Core State Standards. Norm-referenced scores, such as PR, GE, and SGP, are not reported for these tests. To administer an algebra or geometry test, go to Preferences. Under Student Preferences, select a Test Type.