

Overview of Discovery Education Math TechbookTM

Submitted May 1, 2017

Discovery Education Math TechbookTM is a highly engaging digital textbook that connects students to mathematics through real-world problems worth solving. Using a balanced approach to instruction, Math Techbook combines conceptual understanding, procedural fluency, and application to help all students develop long-lasting mastery of mathematics.

We are grateful for the thorough analysis of Math Techbook by EdReports. The review validates a four-year effort to produce high-quality instructional materials that meet or exceed the bar set by more than 20 years of research in mathematics education. Built to meet the recommendations in the *K-8 Publishers' Criteria for the Common Core State Standards for Mathematics*, Math Techbook reflects both the spirit and intent of the Common Core State Standards for Mathematics (CCSSM). It is worth noting that the CCSSM were the next step in a 20-year evolution of mathematics standards and represent a combination of the best ideas from research as well as best practices for student learning. Consequently, the design of Math Techbook presents material in a manner that allows all students to learn mathematics with an appropriate level of depth and rigor. The middle school courses are specifically designed to prepare students for the mathematics that they will encounter in high school. In particular, we have:

- Focused a majority of the content on the major work outlined in the standards.
- Approached each of the three pillars of rigor—conceptual understanding, procedural fluency, and application—with equal intensity.
- Maintained a balance between structured inquiry and direct instruction, so learning happens in a meaningful and efficient manner.
- Focused attention on the Standards for Mathematical Practice. When implemented with fidelity, Math Techbook engages students in the mathematical practices on a daily basis. The team that developed Math Techbook consists of highly experienced educators who taught students to persevere, make sense of mathematics, communicate their thinking, attend to precision, and recognize structure in mathematics, long before these ideas were given names and identified as the Standards for Mathematical Practice.

Math Techbook Grade 6 is the highest-ranked course for sixth grade reviewed by EdReports to date, scoring 61 out of 70 points. Similarly, Math Techbook Grade 7 is the highest-ranked course for seventh grade reviewed by EdReports to date, also scoring 61 points. Math Techbook Grade 8 was one of only two products to receive a rating of Meets Expectations from EdReports for grade 8 courses, scoring 61 out of 70 points.

At the high school level, Math Techbook Traditional scored 59 out of 70 points in the EdReports analysis, making it one of only two products to receive a rating of Meets Expectations from EdReports for traditional high school courses. Similarly, Math Techbook Integrated scored 58



out of 70 points in the EdReports analysis, making it one of only three products to receive a rating of Meets Expectations from EdReports for integrated high school courses.

Additionally, Discovery Education is the only publisher to provide a complete suite of courses at the secondary level in which every course received a rating of Meets Expectations. These ratings confirm what we have witnessed in hundreds of classrooms over the last two years of implementation—when teachers have access to high-quality content, they can shift instructional practices, inspire student interest in mathematics, and improve achievement.

Because Discovery Education Math Techbook is a digital resource, it is regularly updated to improve functionality and enhance content. The service may have fared even better had EdReports been able to review the latest iteration of Math Techbook, which will be available to all users for back-to-school 2017. Based on student and teacher feedback, the latest enhancements include a streamlined design to ease planning for teachers and to emphasize the balance of structured inquiry and direct instruction, more options for differentiation and personalized learning, additional assessment items, improved math tools—including a specialized tool featuring live data from the NBA—and a print *Interactive Student Resource* edition.

Discovery Education Math Techbook represents a significant step forward in the development of high-quality digital content. Not only does it provide digital tools and rich media content to increase student engagement, but it also develops conceptual understanding by using a balanced approach that allows students to learn mathematical ideas in an iterative manner. The materials have been designed using best practices so that students are able to construct their own knowledge, are less likely to develop misconceptions, and are more likely to retain what they have learned.

Discovery Education invites you to review Math Techbook. Please visit www.tinyurl.com/MTBpreview to learn more about Math Techbook and to register for a free 60-day trial.