Middle School Math Gets a Makeover

A look at the numbers fueling one district’s sharp increase in mathematics proficiency in Grades 6–8

Success Spotlight

Mathematics Proficiency Rates on End-of-Grade Test

<table>
<thead>
<tr>
<th>Grade</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 6</td>
<td>48%</td>
<td>52%</td>
<td>55%</td>
<td>62%</td>
</tr>
<tr>
<td>Grade 7</td>
<td>44%</td>
<td>52%</td>
<td>54%</td>
<td>58%</td>
</tr>
<tr>
<td>Grade 8</td>
<td>40%</td>
<td>43%</td>
<td>50%</td>
<td>54%</td>
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+14 Percentage point rise in middle school math proficiency since 2016

1st Statewide ranking in growth for two of the last three years

5th Current "Big 10" ranking in middle school math. Three years ago, they were ninth.

Research-Based PD and Instruction

1 Former math teacher and district administrator embedded by Curriculum Associates to deliver more than 100 days of Professional Development

8 Teaching practices from the NCTM book Principles to Action: Ensuring Mathematical Success for All aligned to every PD session

"The first summer we did two weeks of intensive PD. We focused on math discourse for a week, and then teachers practiced with students in the lab model. I can’t say enough about the positive feedback I got from teachers! They felt more prepared to start the school year than ever before."

—Dr. Melissa Balknight, Associate Superintendent for Academic Services

Data- and Discourse-Driven Instruction

1 WEEK Duration of most Ready lessons, designed to champion deep understanding over memorization

5 MOVES Employed by Gaston teachers and inspired by Smith & Stein’s book Five Practices for Orchestrating Meaningful Math Discussions

38 MINS. Average time per week middle schoolers spent working on their individualized i-Ready lesson paths in 2018–2019

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With Ready . . .

Lesson pacing slows considerably to encourage focus. Most Ready lessons span a week—five class sessions—to allow comprehension to take root.

Problem solving is paused while everyone examines the problem. Topics are introduced using real-world problems, and students engage with multiple reads, discussing questions like, “What are we trying to find out?” and “What information is most important?”

“At first I didn’t appreciate the time we would spend on Think–Share–Compare. Ultimately it was very beneficial, however, because students persevered through that productive struggle to solve problems.”

—Jennifer Del Castillo, 7th Grade Teacher

Students do most of the talking. In Ready’s Think–Share–Compare routine, students formulate an approach to the problem independently, critique each other’s ideas with a partner, and then compare strategies as a class to build appreciation of the connections between different representations.

It’s about more than being marked correct. Ready prizes the ability to identify and discuss multiple representations, encouraging students to explore more than one solution strategy.

“Students do most of the talking. In Ready’s Think–Share–Compare routine, students formulate an approach to the problem independently, critique each other’s ideas with a partner, and then compare strategies as a class to build appreciation of the connections between different representations.”

—Trista Dye, 8th Grade Teacher

Teachers are equipped with resources to support differentiation. From the Teacher Resource Book, to the online Teacher Toolbox, to the students’ Practice and Problem Solving books, Ready provides a wide range of resources to challenge kids at every level.

“We have transformed our middle schools,” says Balknight. “We’ve worked really hard to train the teachers on the workshop model and have transitioned to rotations and 90-minute blocks. i-Ready and Ready lend themselves well to what we are trying to do.”

“My advice for new users of Ready: Don’t be afraid to give up some control. You might be shocked by what students reveal they know in their conversations with each other.”

—Trista Dye, 8th Grade Teacher

Are all your students making steady gains in mathematics?
Visit ReadyMathematics.com to learn more about how Ready Mathematics and i-Ready support educators in helping every child grow.