



CASE STUDY

Norman Public Schools Build Algebraic Thinking With *Everyday Mathematics*

ABOUT THE DISTRICT

Name

Norman Public
Elementary Schools

Location

Norman, Oklahoma

Grades

K-5



Overview

The Norman Public School District, which is located near the University of Oklahoma, serves 16,000 students across K-12, with 17 elementary schools for K-5 students. 49% of students in the district qualify for the Free or Reduced Lunch Program.

58%

CAUCASIAN

14%

MULTIRACIAL

14%

HISPANIC

6%

AFRICAN
AMERICAN

5%

NATIVE
AMERICAN

3%

ASIAN

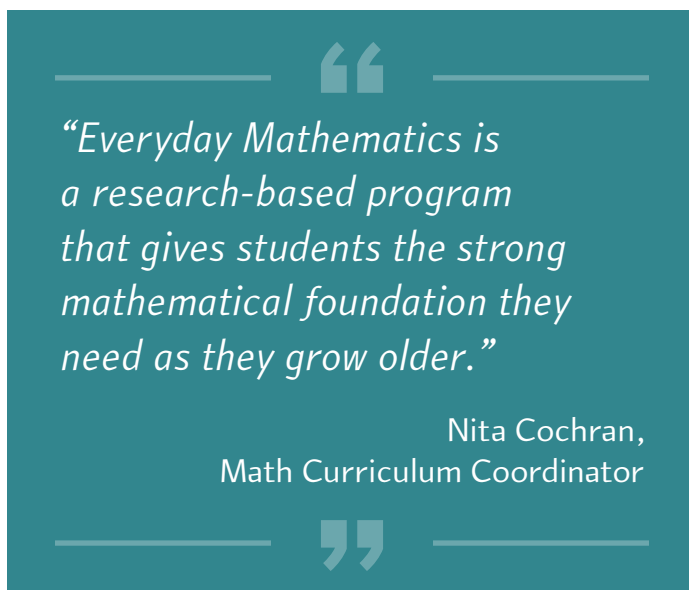
TOTAL ENROLLMENT: 8,750

The stated mission of the Norman Public School District is to prepare and inspire students to reach their full potential. This mission shines through the district’s approach to teaching elementary mathematics. For nearly 15 years, Norman elementary schools have relied on *Everyday Mathematics*, a program developed by The University of Chicago’s School Mathematics Project.

Everyday Mathematics continually reinforces math concepts by revisiting content in a variety of contexts over time, as opposed to focusing on rote memorization in short bursts of learning. This method, called spiraling, helps students build true depth of knowledge and achieve long-term mastery of concepts and skills.

Implementation

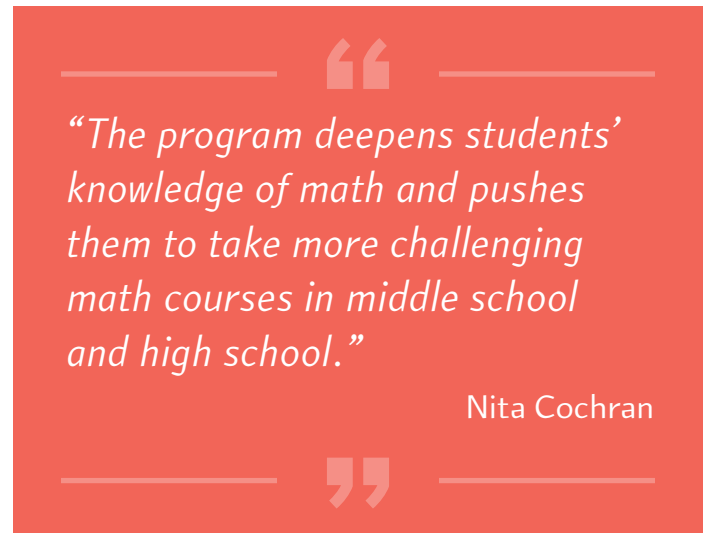
Nita Cochran is currently the Math Curriculum Coordinator for Mustang Public Schools in Oklahoma, but for almost 15 years, she held the same title for Norman Public Schools. In 2003, she was looking to help the district’s elementary school students improve their mathematical foundation, so she launched a pilot program of *Everyday Mathematics* at two of the district’s elementary schools. After a successful pilot, the teachers championed *Everyday Mathematics* to fellow faculty members and convinced them to adopt it districtwide in 2004.



“*Everyday Mathematics is a research-based program that gives students the strong mathematical foundation they need as they grow older.*”

Nita Cochran,
Math Curriculum Coordinator

“Our goal was to focus on foundational math skills at a younger age so our ninth-grade students would be ready to take Algebra I,” Cochran says. “*Everyday Mathematics* is a research-based program that gives students the strong mathematical foundation they need as they grow older. The program deepens students’ knowledge of math and pushes them to take more challenging math courses in middle school and high school.”



“*The program deepens students’ knowledge of math and pushes them to take more challenging math courses in middle school and high school.*”

Nita Cochran

Cochran believes that the latest edition of the program, *Everyday Mathematics 4*, provides the best path for elementary school students to solidify their mathematical foundation because teachers can see how content develops across lessons and pinpoint each student’s mastery level for standards at any point during the school year.

Student Engagement

Everyday Mathematics 4 materials were designed purposefully, according to research-based principles, with features that provide a range of opportunities for students to learn. Because they are flexible, these materials provide teachers with an array of resources for meeting their students’ diverse learning needs.

The program also features both offline and online tools for students and teachers. Students can log into the platform to get extra practice or to play

games online—games that reinforce what they’ve learned in class. Teachers can see students’ work and track their progress toward mastery of math concepts. This information is useful to teachers if they have to adjust what they’re teaching or to identify students who might need extra help.

Teachers in Norman credit *Everyday Mathematics* with an impact felt throughout the community. “*Everyday Mathematics* got kids talking about math,” says Cochran. “Football is big in Norman, and I heard kids making up number games with their parents during football games. I never thought I’d hear kids talking about numbers in public!”

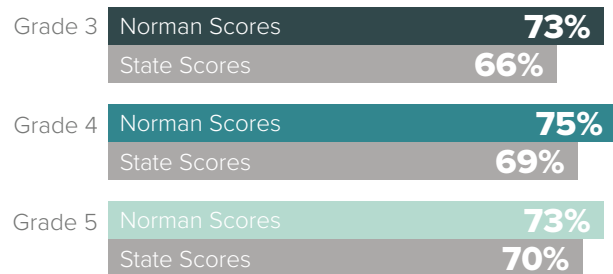
“Football is big in Norman, and I heard kids making up number games with their parents during football games. I never thought I’d hear kids talking about numbers in public!”

Nita Cochran

Results

Fast-forward a decade, and *Everyday Mathematics* is still empowering elementary school teachers and students in the Norman Public School District. In 2016, students in grades 3–5 scored an average of 6% higher on the Oklahoma School Testing Program Math test than other students in Oklahoma. Equally impressive is that Norman’s Algebra I students scored 10% higher than their peers in other districts.

2016 Oklahoma School Testing Program: Mathematics Pct Proficient and Advanced



2016 Oklahoma School Testing Program: Algebra I Pct Proficient and Advanced



ABOUT EVERYDAY MATHEMATICS:

Everyday Mathematics is a comprehensive Pre–K through Grade 6 mathematics program engineered for the Common Core State Standards and grounded in an extensive body of research into how children learn. Among the approaches on which the program is most closely based is “distributed practice,” a technique that involves repeated exposures to key ideas in different contexts over time. The program’s signature spiral curriculum uses distributed practice to help students build depth of knowledge and achieve long-term mastery of concepts and skills.



For more information, visit mheonline.com/em4da
View, comment, share this story online at DAmag.me/edm



MA17 M 13194