

Charlotte-Mecklenburg Schools



Charlotte-Mecklenburg Schools (CMS) is one of the largest school districts to deploy a digital learning initiative for widespread use. As one of the twenty largest school districts in the U.S., serving nearly 150,000 students, CMS is the largest single deployment of Chromebooks in the world. That scope presented an exciting yet daunting challenge. It involved getting community buy-in for a large scale deployment to give students access to technology even though they wouldn't bring the computers home with them every day.

District facts

Public school district

Total district enrollment

146,000 Students
19,000 Teachers & support staff

Grades served

Pre-K > 12

Number of schools

168 
91 Elementary schools
30 Middle schools
31 High schools
8 Pre-K-8 schools
3 K-8 schools
1 K-12 schools
1 6-12 schools
3 Alternative schools

Free/reduced price lunch

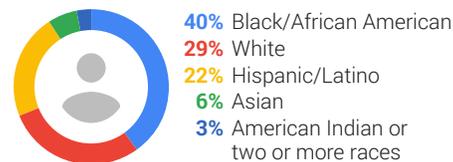
54% of students qualify



Google tools

139,000 Chromebooks
2 Years using Chromebooks
2 Years using G Suite for Education
100% 5th-12th-grade students using G Suite for Education

Ethnicity



Why Chromebooks

- The low-cost and ease of deployment makes providing Chromebooks for 150,000 students possible.
- Students don't have to wait for their teacher to guide them, freeing teachers to create open-ended lessons giving students more freedom and creativity.
- After students enter the classroom, they update their student dashboards on their Chromebooks, making fast digital assessments easy.

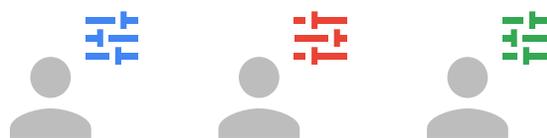
Spotlight on Ridge Road Middle School

Melanie Baker, currently an instructional technology specialist for CMS, but previously the technology facilitator at Ridge Road Middle School, explains she's seen schools in other districts use technology in a "non-interactive way." However, once teachers at CMS understood how they could use Slides, Docs, Forms, and other apps, it became clear that nine computer carts for the entire school were not nearly enough. The change from reserving carts in advance to students getting access to Chromebooks all the time gave teachers tremendous freedom to implement digital learning.

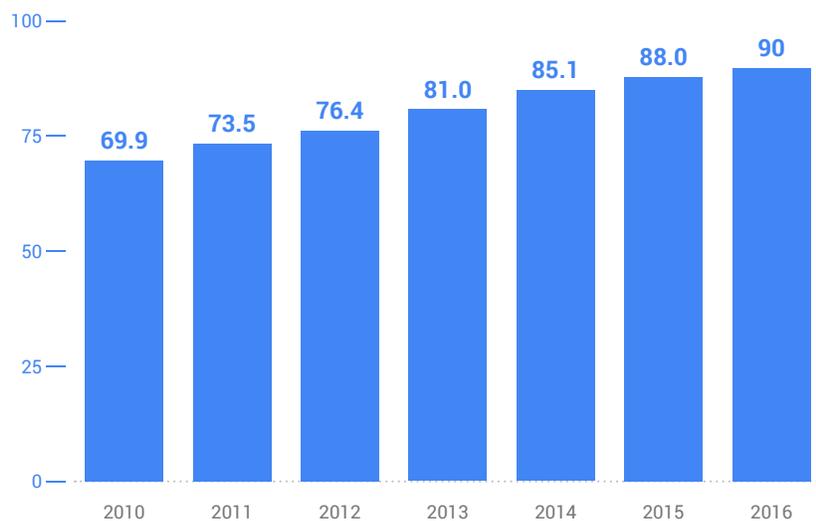
Ridge Road's improvement plan for 2015–2017 set a goal to "increase technology usage for differentiation" in the school by implementing flipped classrooms and digital tools to improve levels of student achievement. School leaders hoped that student use of technology would increase engagement and extend learning beyond the school day. Ridge Road Principal Jametta Martin-Tanner explains: "Our students take ownership over their learning and create weekly action plans, which drive their personal

and academic goals. **Students use self-reflection as a time to conference with teachers and peers to understand where their current level of mastery is and how they can continue to grow."**

Results from the 2014-2015 school year show that Ridge Road, already a strong school, continues to improve. According to the North Carolina Department of Public Instruction school report card, Ridge Road's student growth score exceeded expectations and was at the top of the scale. This strong growth is attributable to many factors, including excellent teachers, strong leadership, a desire for continuous improvement, and the focus on personalized learning. In no small part due to the school's successful technology initiative, Mrs. Tanner was CMS District's 2014-2015 Principal of the Year.



CMS 4-year cohort graduation rate (2010–2016)



20%

increase in graduation rate since 2010

"Our students take ownership over their learning by creating weekly action plans."

Jametta Martin-Tanner, Ridge Road Principal

Taking CMS digital with community support

What would it take to create a 21st century learning environment in a large school district of 146,000 students and 168 schools, where students speak 175 native languages and represent 158 countries? The district's answer was the CMS Digital Learning Conversion (DLC), a large-scale initiative providing anytime access to computers and educational software for students and extensive professional development for teachers. The affordability of Chromebooks meant that this solution was scalable.

CMS developed their 2018 Strategic Plan by gathering information and opinions in community meetings, town halls, task forces, surveys, and individual and group meetings. Parents were excited by the potential of the plan, which would even allow them to check homework assignments online. "They want to know what's happening in their kid's school. Now, when parents ask them what happened in school today, the kids can't say

'nothing' anymore," says Dr. Valerie Truesdale, Chief of Technology, Personalization and Engagement for Charlotte-Mecklenburg Schools.

There was much work to be done. No CMS school had wireless Internet access throughout the entire school. None of the district's 1,100 portable classrooms had Internet access at all, and schools with internet access had insufficient bandwidth to support a large number of devices. The district had only five instructional technology trainers to work with more than 19,000 teachers and support staff. To make real progress with instruction, CMS had to add the right infrastructure and the right people to support it, adding additional technology trainers for students, staff, and even parents. The district has 14 family educators to teach parents how to check grades, or even use digital tools at the grocery store. "Anytime you've got wi-fi in your building and a group of kids, I'm going to be there to train them," says Truesdale.

158 countries
+
175 languages

Largest deployment in the world

At **\$149** a unit, it's scalable



"We talk about student engagement. Some people call it student agency. We've all had kids who are at the back of the class, heads down, not engaged. With this technology, there are no kids like that. They're all engaged. We're seeing students who are able to be curious anytime they want."

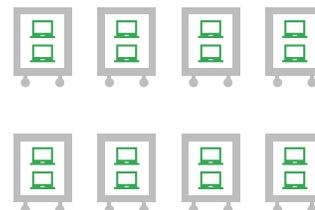
Valerie Truesdale, Assistant Superintendent

Welcome to Chromeroom

CMS selected 12 middle schools as Early Adopters. Schools received Chromebook carts for students—nearly 8,000 across these schools—for access to Chromebooks during the day. From the start, Truesdale realized “We placed a huge responsibility on teachers to use devices as a tool for increasing student engagement and extending learning beyond class time.”

Getting Chromebooks to students across the district required creative solutions for logistical issues. For example, because students didn’t take Chromebooks home at the end of the day, how would the school move Chromebooks from a student’s last period class one day to a first period class the subsequent day? The solution: students pick up a Chromebook in the classroom where they left it at the end of the previous school day, as part of an opening period called “Chromeroom.”

12 
middle schools



“Students don’t have to wait for their teacher to guide them, freeing teachers to create open-ended lessons giving students more freedom and creativity.”

Jacob Standish, DLC Program Manager

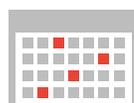
Empowering students to manage their learning

CMS teachers and administrators stress DLC is not a technology initiative at heart. Instead, it provides tools and access to 21st century learning environments for kids. According to Jacob Standish, DLC program manager, “With Chromebooks, teachers can direct activities to the needs of each student. Students don’t have to wait for their teacher to guide them, freeing teachers to create open-ended lessons giving students more freedom and creativity.”

Teachers and pupils at the Barringer Academic Center, a school for gifted students, exemplify the innovative uses of technology enabled by DLC. One math and science teacher schedules a weekly “Genius Hour” for students to explore a topic of their choice. They present their findings to other students and teachers with Chromebooks and Google Slides. In other classes, instruction begins the night before with a video on the upcoming lesson. After students arrive at math class, which is grouped by ability, the teacher gives a brief formative quiz. If a student

does well, they may elect to skip the teacher’s mini-lesson and proceed straight to their daily choices on their Chromebook. Teachers across the district have created more than 75,000 Google Forms as formative quizzes and for other uses.

Ms. Nielsen, a social studies teacher at Martin Luther King Jr. Middle School, changed her room arrangement to make it more comfortable for students engaged in self-directed learning. Students sit on pillows on the floor, working in small groups. They complete their social studies assignments, alternating between small group instruction and working on their Chromebooks. Ms. Nielsen facilitates the class while her students work at their own pace.



Better, faster assessments

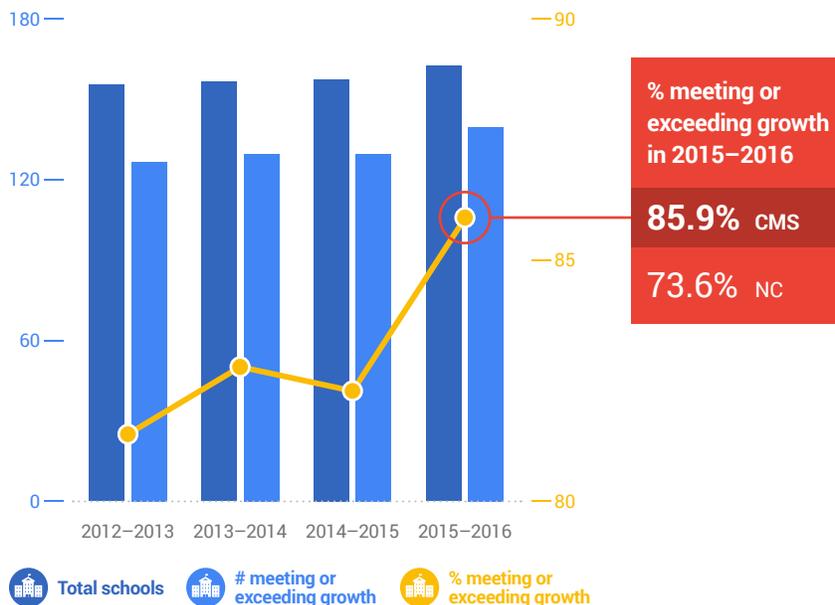
Digital tools help teachers evaluate where students need help. At Newell Elementary, Ms. Klinger uses a quick, formative online assessment to see which students are struggling to add and subtract fractions. After students enter the classroom, they update their student dashboards on their Chromebooks. Ms. Klinger works with students who attend her first

coaching session; after two additional conference sessions, she allots time for conferring one-on-one with students who reference previous digital mini lessons first before asking for her help. "We've all had kids who are at the back of the class, heads down, not engaged," says Truesdale. "With this technology, there are no kids like that. They're all engaged."

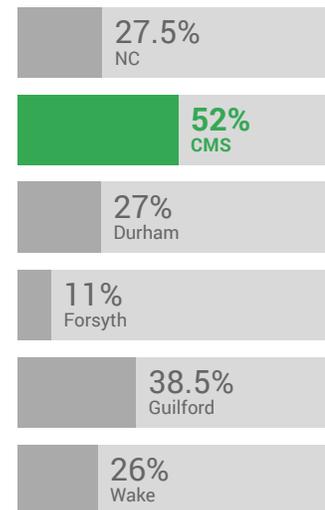
"I'm a 20th century teacher trying to make it in the 21st century—but Google Classroom makes it easy for me."

Gwen Aldrige, Randolph Middle School Health Teacher

In the last 4 years, CMS has the highest number of schools, and the highest percentage of schools, making or exceeding growth expectations...



...and CMS outperformed the state and other large NC school districts in percentage of schools exceeding student growth expectations



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