

# Littleton Public Schools uses Google Apps as a modern learning engine



## About Littleton Public Schools

- [www.littletonpublicschools.net/](http://www.littletonpublicschools.net/)
- Denver, Colorado
- 15,000 K-12 students in the district

## Goals

- Use technology to help students improve their writing skills

## Approach

- Used Google Sites, Google Docs and Google Drive to empower students to create, collaborate, revise, and publish their work

## Results

- Improved writing scores across the district
- Got total buy-in from students and teachers, creating nearly 200,000 Google Docs in the first year
- Saved six figures in IT, equipment and maintenance costs

## Learn more

- [Littleton Public Schools website](#)
- [Instructional technology PD staff site](#)
- [Inspired Writing Class Resources](#)
- [UC Irvine Case Study: Evaluation of Inspired Writing](#)

## The School District

Littleton Public Schools (LPS) is a school district located a few miles south of downtown Denver, Colorado. There are approximately 15,000 K-12 students in the district with additional services for pre-school students. Students attend 13 elementary schools, four middle schools, three high schools, several alternative programs, a preschool, and two charter schools. LPS offers National Blue Ribbon Schools of Excellence and a high school International Baccalaureate program.

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—Dr. Dan Maas, chief information officer, Littleton Public Schools

## Challenge

Students today are growing up in a different educational world. Online tools fundamentally have changed how today’s kids learn, interact and work with each other. Students have an entire world of information available to them just a few clicks away. Despite the increased availability of free tools on the web, Littleton Public Schools Chief Information Officer (CIO) Dr. Dan Maas realized that schools didn’t always make the best use of them for teachers and students.





The district was hosting email servers for teachers and staff, but had no collaboration tools and homework was done largely by emailing attachments or making paper submissions, a cumbersome process. Dr. Maas' top priority was to address these challenges and create a modern learning environment in which kids could use Web-based tools to learn, in a way that was comfortable for them.

### **Solution**

By December of 2011, the majority of students and staff at LPS had switched over to Google Apps for Education, migrating their email, calendar and contact data to Google. The migration took 23 hours in which more than 296 gigabytes of data and 4 million emails, calendar appointments and contacts were safely uploaded. They were offline for about 10 minutes while the email routing took effect across the Internet.

Today, every Littleton staff member and teacher has a Google Apps account, as does every student in grades 4 and above. Some schools have even opted to provide these services to younger students as early as Kindergarten. Any student, teacher or staff member with an account also has access to Google Calendar, Documents, Drive and the network of Google Sites teachers have set up to store and present class material, discussions and other materials.

During the 2011-2012 school year, Littleton students created more than 200,000 new Google Docs, and by the spring of 2013 LPS students were creating over 20,000 new Google Docs monthly. Dr. Maas called collaboration "an essential 21st Century skill" that all students need to learn. "It's the way the world works now," he said. "Almost everyone works directly with someone else every day."

Maas points to hundreds of LPS students and teachers who have benefited from the district's Inspired Learning cohorts, teachers like Katie Christie. Her 5th grade class at Runyon Elementary School is an example of the district's "Inspired Writing" curriculum, which is a model of technology-enabled modern learning. The class revolves around a **Google Site** that contains learning objectives, resources and videos, assignments, student and teacher work and more. Miss Christie posts assignments daily on a Google Calendar so students always know what's expected. Students and their parents can also add this calendar to their personal Google Calendars as well. Google Docs lets students do many different kinds of creative homework, from one student using Google Drawing to create a flowchart for a book report, to four students using Google Presentation to collectively create a presentation about astronomy to give in front of the class.

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*—Dr. Dan Maas, chief information officer, Littleton Public Schools*

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## Benefits

Google Docs has helped LPS step into a new era of learning. By using technology to aid teaching and learning, they've been able to engage more students, offer a more creative curriculum and fundamentally change how students learn. Maas reeled off a list of improvements brought on by Google Apps:

### Achievement

- A 14 percent gain in writing achievement vs. pencil/paper from the 2010-2011 year to the next (see **Case Study by Warchauer et al**).
- In the 2011-2012 school year, Littleton students created more than 200,000 Google docs; in the first semester of the 2012-2013 year, they created more than 180,000 Google Docs, almost double the amount they created the entire previous year. And by spring of 2013, students were creating 20,000 Docs per month.

### Access

- Google Apps is built on portability and follows students home so they can work from Docs at their home computer home anytime they like.

### Savings

- Because Google Apps is web-based, the district was able to buy 8,500 less expensive devices for students to use. LPS is now shifting to Chromebooks and is implementing 900 at the time this went to print.
- The school district avoided a six-figure cost by going Google, including:
  - Saving more than \$42,000 per year on email costs including storage, servers and licensing for staff.
  - Avoiding an average \$20,000 for server upgrades to the schools old file server.
  - Reducing the time cost for the IT team to deal with mail server issues, storage and space issues and email downtime.

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Maas said the biggest benefit of going Google is this empowerment he sees of students and teachers. He particularly remembers a student who benefited from the tools. Five years ago a young student, Lupita, used to hate writing, but completely turned around after she started the Inspired Writing curriculum. "Lupita blogged that she now loves to write, which was a dramatic shift from her attitude about writing on paper. And her dad wrote on our blog also to tell us he saw how his daughter loved writing now! To see how that kind of learning travels from the schools, to the classroom and then all the way home with the student is really powerful."

