

Google Apps Education Edition: Improving the writing process with Google Docs

About Google Apps Education Edition

Google Apps Education Edition is a free suite of hosted communication and collaboration applications designed for schools and universities. Google Apps includes Gmail (webmail services), Google Calendar (shared calendaring), Google Docs (online document, spreadsheet, presentation, and form creation and sharing), Google Video (secure and private video sharing – 10GB free) and Google Sites (team website creation with videos, images, gadgets and documents integration), as well as administrative tools, customer support, and access to APIs to integrate Google Apps with existing IT systems.

For more information visit:
google.com/a/edu

From hammer and chisel to stylus to pen, and now to the computer, the art of writing – and of teaching writing – has evolved since our earliest times. Today, educators have new ways of updating the writing process, and the way they teach it, as they prepare students for an increasingly digital world. Google Docs supports effective writing with free online tools for creating, collaborating, revising, and publishing – tools that can improve the writing process for students and teachers alike. This paper explores Google Docs' capabilities and shares insights from educators on the benefits they've seen in their classrooms.

About Google Docs

Google Docs is part of Google Apps Education Edition, the free communication and collaboration solution that features the familiar Gmail email platform. Offering word processing, spreadsheets, presentations, and forms, Google Docs provides an easy way for teachers and students to work together on projects, reports, and more, and to collect and share information in a secure online environment.

- **Anytime, anywhere access** Web-based Google Docs safely stores documents online, making them accessible to authorized users from any computer or mobile device. Teaching and learning doesn't need to stop when the bell rings – with Google Docs, writing, and online collaboration, can happen anytime.
- **Collaboration support** Google Docs lets users invite others to work on the same document at the same time, without the hassle of attaching and sending documents. Sharing privileges ensure access by only the right people or groups, and allow either editing or read-only access.
- **Integrated writing reference tools** A built-in dictionary and thesaurus let users look up words without leaving their documents, and integrated web and encyclopedia search helps speed research and references. Word Count capability provides feedback on sentence length, average words per paragraph, rated reading ease, and other analytics that help writers improve readability.
- **Autosave and revision history** Continuous autosave ensures that current work stays safe, preserving ongoing drafts and edits. A complete revision history makes it easy to review, compare, or revert to a prior version at any point.

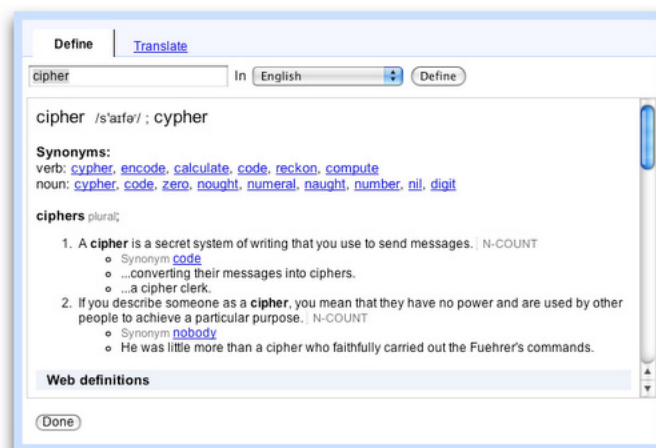


Figure 1:
An integrated
Thesaurus,
along with a
Dictionary and
web search
capabilities, are
included in
Google Docs

About Google Certified Teachers (GCT)

Educators who are selected to attend a Google Teacher Academy become Google Certified Teachers. The Google Teacher Academy is a free professional development experience designed to help K-12 educators get the most from innovative technologies.

Google Certified Teachers are:

- Exceptional K-12 educators with a passion for using innovative tools to improve teaching and learning.
 - Creative leaders who understand their local needs and can spread innovation as a recognized expert.
 - Ambassadors for change who model high expectations, life-long learning, collaboration, equity & inclusion, and innovation.
-

- **Shared folders** Files and docs that are regularly used by teams or groups stay organized and up-to-date – without managing or communicating changes.
- **Templates** Ready-made templates covering a wide range of document and report types help jump-start writing projects. You can also create and publish your own document templates to establish assignment structures for your students. Templates can be copied with one click and then modified like any other document.
- **Forms** Flexible built-in forms, easily sent via email or published as a webpage, make it easy to collect and organize surveys, reviews, project updates, and more. Responses automatically fill online spreadsheets, so you can view input and responses all in one place.

Writing together, learning together

Because it's built to support online interaction, Google Docs promotes the transition from individual work, with limited or paper-based input and feedback, to true collaboration – a steady stream of comments, edits, and revisions. As Matt Montagne, a Google Certified Teacher (GCT) at Castelleja School, says, "Google Docs has facilitated a fundamental shift in our school culture." Google Docs makes it easy to involve contributors, so documents of all types can benefit from sharing, teamwork, and collaboration.



*Figure 2:
Document sharing
simplifies group
collaboration
without the hassle
of attachments*

Nic Finelli, a GCT from School District Five of Lexington and Richland Counties, experienced the benefits of faculty collaboration on a letter to the school board, recalling that "More than 20 faculty members contributed to the letter on their own time, without having to meet or stay around before or after school."

Shifting collaboration to an online environment also opens up a new set of document contributors. Students from different classes, different schools, anywhere in the world, can work together on assignments by sharing secure access privileges. "More than 40 students worked together, editing one spreadsheet," explains Millburn High School's Michelle Blakley. "This let students from different classes work together, so that everyone was involved in the work."

Easy, collaborative revisions

Google Apps lets students move beyond paper drafts, one-by-one peer reviews, and waiting for teachers to complete physical edits. Online comments and real-time editing mean that students can see comments as they come in, acting on them and streamlining the input process. "I had a specific day when students would bring in their drafts," recalls Chris Sloan, GCT from Judge Memorial Catholic High School. "They'd get one session of peer response and then write revisions. Now a lot more revising takes place because real conversations happen within the doc, which has in general led to better writing." With better input and ongoing feedback on changes, students can continue to develop their work without waiting for paper-based reviews.

"More than 20 faculty members contributed to the letter on their own time, without having to meet or stay around before or after school."
—Nic Finelli, Google Certified Teacher School District Five of Lexington and Richland Counties, South Carolina

"Now there's a lot more revision taking place because there's more conversation happening in the Doc, which has in general led to better writing."
—Chris Sloan (GCT), Judge Memorial Catholic High School, Salt Lake City, Utah

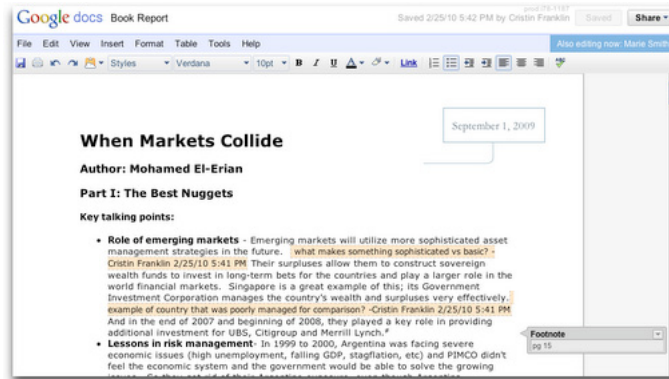


Figure 3: Color-coded comments can be added in real time to shared documents

As document collaborators, teachers can provide feedback whenever it's important in the revision cycle – not just at designated due dates. “Before Google Docs, I wasn't able to give the feedback like I can now,” says Erik Wittmer, South Western School District. “I can access papers from wherever I am. Feedback is crucial during the entire writing process and Google Docs has allowed me to communicate more with my students.” What's more, Google Docs' selective sharing can facilitate online writing tutoring by letting tutors work in documents concurrently with writers, reviewing, adding comments, and suggesting clarifications.

Google Forms, integrated into the Spreadsheets found in Google Docs, can guide the editing process and provide handy notices. “I have peer editors answer specific questions on a Google Form,” explains Carol LaRow, a GCT and educational technology consultant. “When the form is submitted and appears in a spreadsheet, teachers know that the paper is ready to look over.” Since forms take just minutes to create, and can be shared easily in email or links, requesting and receiving feedback becomes a natural part of the editing process.

Figure 4: Easy-to-create forms collect and organize structured other information

Always ready, always available

Google Docs supports the creative process by being ready and available whenever inspiration hits. Jim Sill, a GCT from El Diamante High School, recalls one story of late-night creativity. “Late one night, I opened a recently edited document from one of my classes. I saw that both group members were signed on and actively writing a poem at that very moment. I sat and watched as their poem took shape. When they noticed that I was signed on, I began to add my own lines. Here we were, well after school hours, writing a poem together.”

"24/7 access has changed everything about my class. It has removed one of the biggest obstacles to learning."

—Jim Sill (GCT), El Diamante High School, Visalia, California

"When my students are finished with a composition, they can go back through the revision history when they do self-assessments of their writing growth."

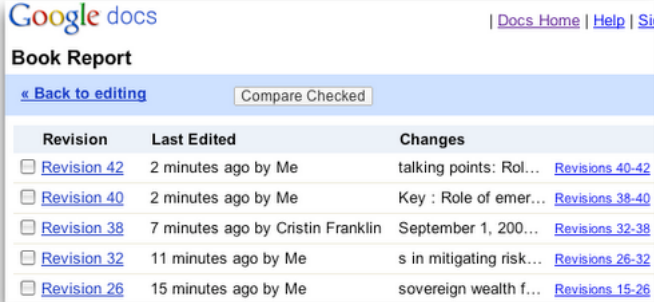
—Chris Sloan (GCT), Judge Memorial Catholic High School, Salt Lake City, Utah

With Google Docs, students can continue the writing process whenever and wherever they're ready to work. It's no longer necessary to complete assignments in the classroom or meet in one place to work together and make progress. "24/7 access has changed everything about my class," Jim Sill continues. "It has removed one of the biggest obstacles to learning." This engagement is possible for students who are not physically present in class, as well.

Bryant High School's Paula Barker agrees. "A student who was home sick emailed his group saying that he wanted to participate on a project, even though he was home," she recalls. "Using Google Docs, he was able to type in his comments and contribute, even though he wasn't physically present."

Trackable progress

Comprehensive document revision history – made possible by nearly continuous autosave – is helpful for both teachers and students. Teachers can look at a document and understand how the document has evolved from early drafts or how peer reviews and comments were incorporated into the final product. With the ability to compare versions, a teacher can see exactly which parts of the document have changed in a clear, color-coded view. For group projects, teachers can also assess the contributions of each of the team members, as the revision history will record who made what changes, and when they were made.



The screenshot shows the Google Docs interface for a document titled "Book Report". At the top, there are links for "Docs Home", "Help", and "Site". Below the title, there are two buttons: "Back to editing" and "Compare Checked". The main part of the screenshot is a table with three columns: "Revision", "Last Edited", and "Changes".

Revision	Last Edited	Changes
Revision 42	2 minutes ago by Me	talking points: Rol... Revisions 40-42
Revision 40	2 minutes ago by Me	Key : Role of emer... Revisions 38-40
Revision 38	7 minutes ago by Cristin Franklin	September 1, 200... Revisions 32-38
Revision 32	11 minutes ago by Me	s in mitigating risk... Revisions 26-32
Revision 26	15 minutes ago by Me	sovereign wealth f... Revisions 15-26

Figure 5: Full revision history makes it possible to review, compare, and revert to previous versions of a document

If they don't like a revised draft, have a change of direction, or lose computer access, students can easily go in, find, and revert to a previous version of a document, feeling confident that prior content has been saved. They can also compare different versions to reflect on the changes and lessons learned throughout the process that they can apply to future assignments. "When my students are finished with a composition, they can go back through the revision history when they do self-assessments of their writing growth," explains Chris Sloan.

21st century classroom

Google Docs translates innovation in technology – hosted documents, online collaboration – directly into the writing process, changing the way students and teachers communicate and work together. Google Docs works seamlessly with the other products in the free, easy-to-use Google Apps suite. Once the writing is done, teachers and students can easily embed documents, presentations, and spreadsheets into a website with Google Sites, allowing organized online access and skill-building in digital publishing – without requiring knowledge of code. A curriculum calendar created in Google Calendar can include a Google Docs attachment with each calendar entry, effectively creating an interactive syllabus. You can also preview Google Docs directly in Gmail, without leaving your inbox.

Integrating a full spectrum of online communication capabilities, Google Apps Education Edition is a collaborative computing platform for the 21st century classroom.

