

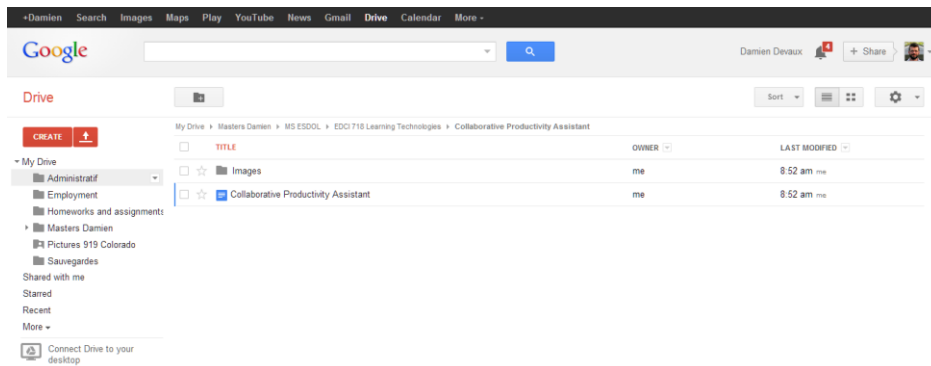
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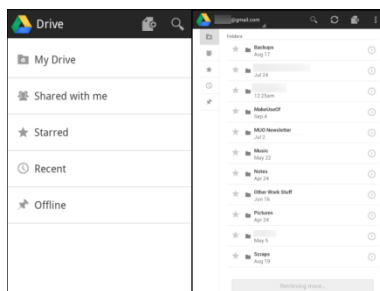
Collaborative Productivity Assistant

Google Drive



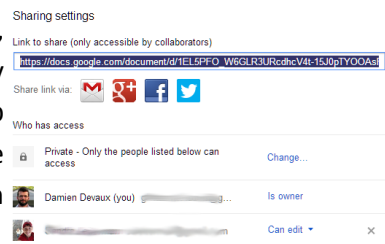
Google Drive (formerly known as Google Docs) is a cloud application which allows storing, retrieving, creating and editing of documents. It is accessible on any device with a web browser and contains features which make it not only a convenient productivity application, but also an excellent collaborative tool.

Cloud service



Google Drive is a virtual drive set in the cloud. This means that any files uploaded are accessible from anywhere. An optional and convenient piece of software called Drive creates a virtual folder on any device which connects to the cloud service: any file saved in this folder is not only saved on the computer's hard drive, but also in the cloud, automatically accessible from any computer device (desktop and laptop

computers, tablets and smartphones) when you sign into your Google account. Conversely, any file created or updated using Google Drive on a web browser is downloaded onto the computer.



Sharing

For any item in Google Drive it is possible to create different sharing

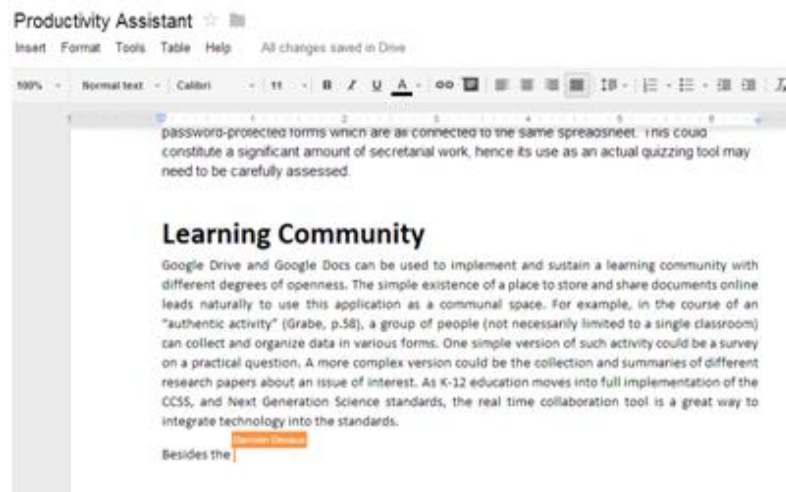


policies. Users can create and share entire folders with the option to view or edit any document contained in them. They can also upload their own files using the shared folder. This particular capability is what makes Google Drive an interesting collaborative productivity tool: a group can create and share documents automatically by using the same folder to store their documents. They can also edit one same document simultaneously.

Google Docs

Documents

Google Docs, Sheets, and Slides are productivity apps that let you create different kinds of online documents, work on them in real time with other people, and store them in your Google Drive online — all for free. The free aspect is especially nice because so many students (especially in my school district) are low SES, many do not have a computer at home, let alone the money to spend on Microsoft Word. Most students do however have a smartphone in which they access the internet- and therefore will be able to access the docs in Google Drive to collaborate with one another on group projects. A fun feature, especially for 6th Graders is the ability to see who is typing and when. You can see an example here:



You'll notice the orange cursor, and Damien's name, which show that he was actively typing when I took the screenshot. There is also a feature that lets you see how many changes, and by who, were made since the last time you logged in to work on the document. There is also the possibility to attend a chat session while editing a document, allowing for real-time collaboration.

Presentation

The presentation app is called Google Slide. This is very similar to the PowerPoint product produced by Microsoft, the biggest difference is that Microsoft charges around 70\$, and Google charges nothing! Google slides can be used individually, or by a group of students simultaneously or at different individual

times. A user can begin a slide presentation by importing an existing .ppt to edit, creating an original one, or if the creativity bug has left you, you can use one of the user-friendly templates provided by Google. Individual users can create slides for collaborative work on one presentation, insert pictures and text, and then save as a ppt, pdf or txt file. Google Slide also allows for importation of .ppt or .pptx files for viewing if the user does not have the appropriate Microsoft product.

Spreadsheet

Google Sheets is a spreadsheet program with many features from displaying data, to creating charts and graphs, to creating a collaborative list/survey. The first thing I do when introducing Google Sheets to my sixth grade students is create a sheet where they all input their email addresses and passwords (I make it private after that, because student passwords don't need to be floating all over) but it is a great way to make a list of 50 student's information with very little effort. A more secured procedure would consist in making a form (next section) and connect it to a spreadsheet that is kept private.

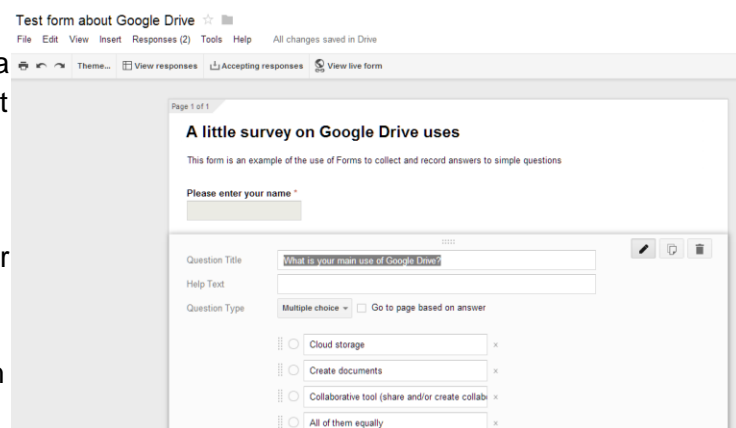
Scheduling parent teacher conferences is a breeze with Google Sheets on a shared documents- just create the list, share the doc and let parents sign up for their ideal time. Saves paper, and saves the agony of trying to collect papers, keep them organized and avoid overlaps.

Apps can also be downloaded to use within sheets, such as flash cards, which allows a teacher to set up flash card centers.

There are multiple functions and formulas that can be entered to create a customized data sheet. A nice feature is the auto-complete; which saves a user from having to type in or remember a long formula. Just type in the first few characters and a list of relevant formulas/functions will come up for you to choose from. Finally, if you create multiple sheets within the same spreadsheet, Google Sheets allows a user to reference data from sheet to sheet.

Forms

A convenient application to collect and record data, Google forms consists in a two documents set up: a form to collect answers to different type of questions (multiple choice, checkboxes, text input, etc.) and a spreadsheet to collect answers. Forms can be used for surveys, quizzes, any type of written data collection tool. After a form is created, simply click on the Send Form button and enter the email addresses. Any number of items can be included in the form. A blank can be made required to answer, placed in a single or different pages, and



direct to default or specific pages of the form. One use that comes to mind is of a multiple-pages form with questions based on the previous answers, a very convenient feature for “test-to-excellence” assignments.

Form elements include but are not limited to:

- multiple choice
- choice from list
- checkboxes
- scales
- grid
- dates and time

Each page can also include written text (explanation, quotes, etc.) as well as images or videos. For example, a user can watch a video, answer a few questions and / or write comments before going to the next page.

Once a form has been sent, users access a non-editable version and submit their answers. The answers are collected in a spreadsheet for review.

The editor can choose whether or not the answers are editable, but there is no limit set on how many times a given user can add answers. One possible way around this problem is to create individual password-protected forms which are all connected to the same spreadsheet. This could constitute a significant amount of secretarial work, hence its use as an actual quizzing tool may need to be carefully assessed.

Learning Community

Google Drive and Google Docs can be used to implement and sustain a learning community with different degrees of openness. The simple existence of a place to store and share documents online leads naturally to use this application as a communal space. For example, in the course of an “authentic activity” (Grabe, p.58), a group of people (not necessarily limited to a single classroom) can collect and organize data in various forms. One simple version of such activity could be a survey on a practical question. A more complex version could be the collection and summaries of different research papers about an issue of interest. As K-12 education moves into full implementation of the CCSS, and Next Generation Science standards, the real time collaboration tool is a great way to integrate technology into the standards.

Besides the simple use of Google Drive as a cloud storage space, the productivity tools that are included in it can be used for specific purposes. The following example shows only a snapshot of what could be done:

A teacher could give her students the following assignment: use a smartphone app to record the noise level in the part of town they live in at a given hour. Have them fill up a form to record their measurements. Use the resulting spreadsheet to create a map of the noise level across a town.

A second part to this assignment could be to gather research on what type of urban feature produces the most noise (flat walls along a street or speedway, use of concrete instead of asphalt, etc.) and why they would produce such noise (reflectivity of surfaces, constructive interference of sound waves, etc.).

Finally, the entire class could write propositions for the city council in order to bring attention to noise pollution backed by data and research. This proposal could include sounds and videos, presentations and letters. The entire project could be contained in Google Drive, from apps to storage.

In the context of a class project, Google Drive represents a clear and easy-to-use option, but it should not be limited to it. Opening the content of a folder or a document to the public could constitute a library which is accessible to anyone - a form of publishing which connects any activity to the outside world. Used in conjunction with a blog or a website, students' production can be made available to the public and represent a concrete achievement. It should be noted that any document created in Google Doc format can be exported onto a Google blog or a website.

Google Apps for Education

Google has created a special suite of its tools especially for use in K-12 and Higher education. To be completely filtered and "school safe" the school and/or district must agree to use a dedicated domain in order to use these functions. If your school/district uses Gmail interface, you are good to go. If not, then all students must have an email address in order to access Google Docs. You can purchase a domain for 8\$ a year. In this instance a Gmail is NOT required, any email address will do. However, without a dedicated school/district domain, it is nearly impossible to filter and restrict access to inappropriate activity.

Although Google does not violate COPPA, if your students are under 13, and they do not currently have an email address, you must obtain parent permission to create one. As a side note, there is a work around if you are unsuccessful in obtaining parental permission: Mailcatch.com is a website which allows you to create an anonymous email address. When registering for a Google account, just type in whatever email address you want- such as sandraisthecoolestteacherever@mailcatch.com. I then go to mailcatch.com and type in the above email address and there will be the link to verify my account, click the link and voila! the Google account is set up, and I never have to check that email again. I need only remember the username and password for the Google account I created.