

THE TEACHER'S GUIDE TO

TECH

2022

PREVIEW

JENNIFER GONZALEZ



CULT OF PEDAGOGY



The Teacher's Guide to Tech

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INTRODUCTION

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When it comes to technology, the one complaint we hear most often is that people have trouble keeping up with it. Not that it's too hard, not that it's too "technical," but that keeping track of it all is simply impossible.

[How We Choose the Tools](#) 13

To try to capture all existing tech tools would mean this book would never be done. When choosing what to include, we keep these questions in mind.

[New in 2022](#) 14

When we update this guide each year, our team checks every page to make sure the links still work, the videos and screenshots still represent each tool accurately, and the information on features is still correct.

[Meet Our Team](#) 16

It takes a lot of brain power, teaching experience, and time with tools to pull this off. Meet the people who put together this year's guide.

PREVIEW



PREVIEW

How This Guide Works

When it comes to technology, the one complaint we hear most often is that people have trouble keeping up with it. Not that it's too hard, not that it's too "technical," but that keeping track of it all is simply impossible.

If that sounds like you, then this book will be a game-changer, a filter that lets you sort through the wild mess of tech tools and quickly determine which ones are worth your time, which ones might be nice to learn later, and which ones you can ignore for now. We have gathered up hundreds of tech tools, sorted them into categories, provided a simple description of what the tools in each category do, and collected ideas for how each one can be used in your teaching.

If you're a **tech novice**, this guide will answer the questions you may have been too shy to ask. When someone uses a term or talks about a program they're using, you can come here and look it up. On every page you'll find explanations in plain, simple language—it will be like having a patient, tech-savvy friend sitting beside your computer, your phone, or your tablet.

If you're **tech-intermediate**, this book will help you up your game. You're probably pretty comfortable with a good handful of tools, but there may be whole categories of terms and tools you've never had the chance to explore.

This book is your shortcut, saving you the time it would take to research new technologies and allowing you to decide quickly if a tool is worth learning, or if it's just something you can introduce to an inspired student.

If you're a **tech junkie**, this book will enrich your work in two ways: First, it will introduce you to a few tools you may not have heard of, feeding your insatiable hunger for more tech as it further solidifies your status as a technology expert. And second, it can serve as a teaching tool, something you can use to guide others if they come to you for help.

KEY FEATURES

This guide is published exclusively as a PDF, rather than in an e-reader or a print format, so it could be interactive, like a complete website you can put in your pocket. If you understand how to use its key features, you'll get more out of it.

Here's how the book is organized:

Introduction

A quick overview of the guide and how to use it.

The Tips

This is the “reading” part of the book, with articles and Q&A about the thoughtful use of technology.

The Tools

This section gathers hundreds of popular tech tools and groups them into categories. Each category starts with an explanation of what that “type” of tool does and how you and your students can use it. Then we take a closer look at a few popular tools in that category, with a brief description of what each tool or site is about, a link to the tool's main website, a link

to a video demonstrating the tool's features (if one is available), a screenshot of the website or the tool in action, plus links to related outside resources (see diagram on following page).

The Terms

This glossary of tech-related terms sometimes includes diagrams or icons related to the terms.

Index

The index includes every term and tool described in this book, and every item is hyperlinked, allowing you to click the page numbers and go straight to the pages where the terms appear. For tools, we will choose the main page where that tool is featured, rather than list every single page where it appears; this is because some tools are mentioned in many places, and we want to give you the quickest path toward learning what the tool does.

Navigation Bar

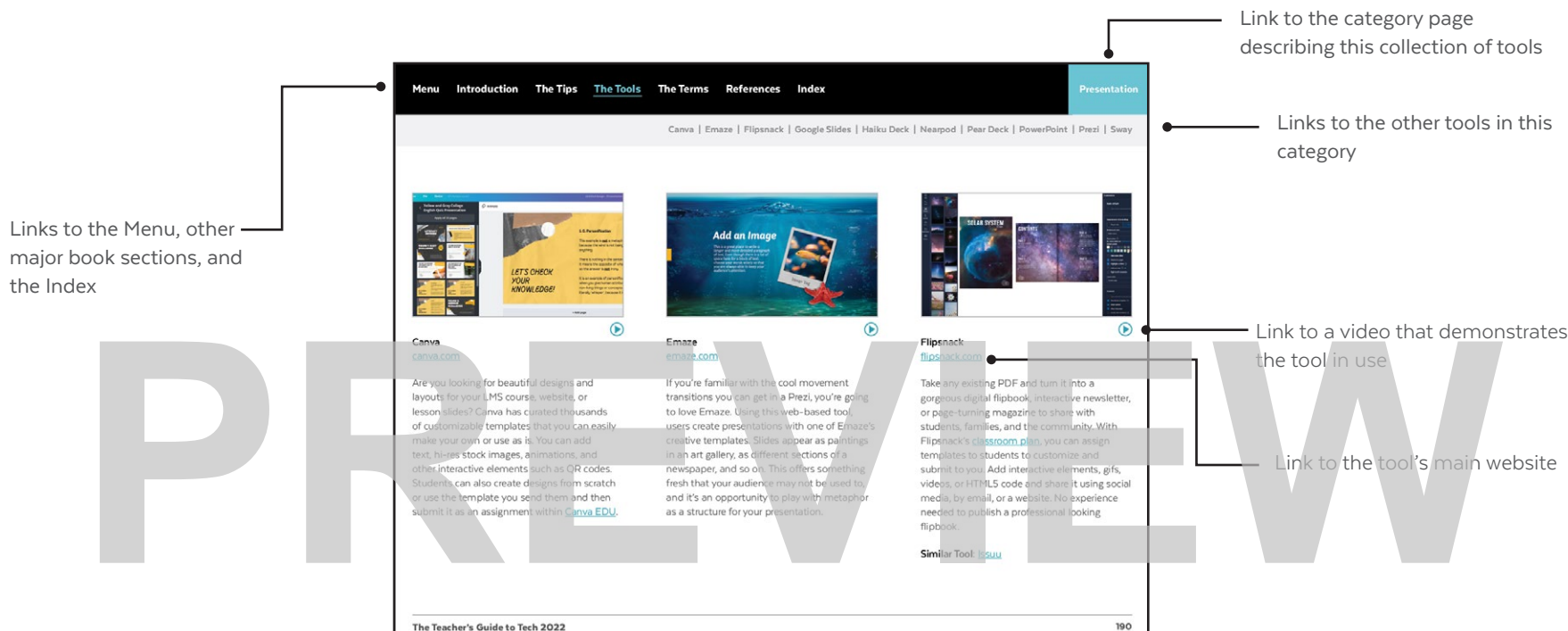
The bar across the top of this page is a clickable navigation bar. If you click on “Menu,” you'll be taken straight there. If you want to check the index, just click “Index” and presto—right to the

index. A sub-menu of the topics or tools within each section has also been included underneath the top navigation bar, so you can easily click back and forth between items in an individual section.

Digital vs. Paper

This book was designed on an 8.5 x 11” template to allow you to print it. A paper version might come in handy at times when you don't have access to a computer or other device. However, if you want to take advantage of all the time-saving links, you'll get the most out of it by using it electronically.

Keep copies of this guide on your work computer, your home computer, and your mobile devices, so the information will be available no matter where you are. You can also keep copies on your classroom computers for student access.



13+

Where did the age icons go?

In previous years, we identified age restrictions for a select group of sites, but because so many tools are included, and so many platforms change over time, the task became insurmountable. We do not want to put out anything inaccurate, so these have been removed. Before using any site with children, it's important that you check to make sure your students are old enough to use it. On the last page of the [Know Your Legal Stuff](#) section, there's a description of where to find this information.

Where is the Back button?

Although this guide allows you to easily jump from place to place, one thing that's missing is a Back button for getting to the last page you viewed. But if you view the guide in Acrobat Reader, which you can download free [here](#), you can add one: Just go to View → Show/Hide → Toolbar Items → Show Page Navigation Tools → Show All Page Navigation Tools. The Back and Next buttons will appear in your toolbar (they will look like left and right arrows).



PREVIEW

How We Choose the Tools

To try to capture all existing tech tools would mean this book would never be done. When choosing what to include, we keep these questions in mind:

Is it widely used? If a tool is popular, well-established, or widely used compared to others in its field, we're more likely to list it.

Is it affordable? Whenever possible, we look for tools that have a good free option. When we feature a paid tool, we do so because it's the only thing out there that does what it does, or it's so popular we think it's worth mentioning.

Is it educationally relevant? Anything could be considered educational in some way. But to keep this book manageable, we cut out tools that didn't have a pretty clear connection to education. Some tools, like [Snapchat](#), are here because they are so popular with students, we think teachers should be familiar with them.

Is it something a regular teacher would use?

There are so many expensive, whole-school solutions that perform all sorts of functions, but these are not the kinds of tools individual teachers have much say about. For that reason, these systems are not included here, keeping the guide dense with tools teachers can reasonably access and implement on their own. Generally, if a website says "request a demo," that tool is probably too big for this guide.

Along those same lines, we have also chosen not to feature sites whose primary offering

is exercises and videos of curriculum-based content, with the exception of the tools in the [Content Libraries](#) section, which were selected because they are not designed to replace whole curricula and because each one offers something unique.

One more thing: Inclusion in this guide does NOT constitute a recommendation. Our goal is to keep you informed about the tools that are out there and what they do. Always evaluate tools carefully before using them with students, and check with your IT department to make sure the tool falls within your school's policies for privacy and age restrictions.

To suggest a tool for a future guide, email support@cultofpedagogy.com.



New in 2022

When we update this guide each year, our team checks every single page to make sure the links still work, the videos and screenshots still represent each tool accurately, and the information on features is still correct. Much of the new information in this guide is along those lines: Outdated links are fixed and information has been brought up to date as much as possible. Along with those, here we'll list the bigger changes we made in this year's guide.

NEW WEBSITES, TOOLS, AND TERMS

Over 115 new listings have been added to this year's guide, bringing the grand total to 550 tools plus over 200 other alternatives listed as "similar." Most of the new listings are not actually brand-new tools, but this is the first time they are appearing in the guide.

We've also added 17 new listings to the [Terms](#), including *crowdsourcing*, *subreddit*, *microblogging*, *NFT*, and *Zoom bombing*.

NEW AND EXPANDED CATEGORIES

We're getting pretty close to covering all possible categories, so new ones will be less frequent from now on. This year's three new categories are **digital literacy**, **social and emotional learning**, and **video conferencing**, which contains a really cool section on platforms that combine video conferencing with [virtual reality](#).

Other categories have been expanded: The Makerspace section now has a new sub-category for [screen-free coding](#), the Teacher Professional Development section has a feature on [microcredentials](#), and the expanded photo editing category now contains a list of helpful [digital photography terms](#).

REMOVED TOOLS

- **Auto Text Expander**, in Productivity & Planning, is gone. [Text Blaze](#) has replaced it.

- **Creatubbles**, which was listed in Makerspaces, is no longer in operation.
- **Elanation**, which was in Physical Education, is not online anymore, so it has been removed.
- **Find Your Calling**, in Career Exploration, has been removed. The platform doesn't seem very active anymore.
- **Mission US**, a simulation game previously featured in History & Social Studies, has been removed. While the site is still active, we have concerns about the idea of turning a topic like slavery into a game. Learn more about this in the [Games & Interactives](#) section of History & Social Studies.
- **Moonfruit**, from our Blogging & Websites section, is closing. Current users will be migrated to [Wix](#).
- **Paper.li** has been removed from Curation as it has become more of a tool to build a personal brand rather than curate information for teaching and learning.

- **The Redistricting Game**, which requires a Flash player, has been removed from the History section because Flash is no longer supported by most major web browsers.
- **Skype in the Classroom** is no longer active. [Flipgrid Live Events](#) has taken its place in Global Learning.

MOVED AND RENAMED TOOLS

- **Adobe Spark** (Art section and Video: Animation & Production section) is now known as Adobe Creative Cloud Express.
- **Canva** (Art) has been kept in Art but added to Presentation; it is a solid tool for both.
- **Class Responder** (Games) has been moved to Interactive Lessons.
- **Diigo** (Notetaking) has been moved to Curation. We can't seem to make up our minds on that one!
- **Discord** (Speaking & Discussion) has been moved to Social Media.
- **Google AR/VR** (Virtual & Augmented Reality) has been replaced with **Google Lens**. The broader AR & VR is still in place

for Google, but this year it seems more aimed at developers. The Lens, which is part of Google's offerings, is a user-facing resource that's simply amazing.

- **Kidblog** (Blogging & Website Building) is now called **Fanschool**.
- **Let's Start Coding** (Makerspaces/Coding) has been moved from the list of other coding tools to a regular featured tool.
- **Mathalicious** (Math) is now called [Citizen Math](#).
- **mysimpleshow** (Video: Animation & Production) is now called **simpleshow video maker**.
- **Paygrade** (Financial Literacy) has changed its name to **Stash101**.
- **Skype** (Speaking & Discussion) is now in Video Conferencing.
- **Teaching Tolerance**, in Social Justice & Anti-Racism, has changed its name to [Learning for Justice](#).
- **Webjets** (Curation) has changed its name to **Weje**.

- **Zoom** (Speaking & Discussion) is now in Video Conferencing.

IMPROVED ACCESSIBILITY

It may not look very different, but this entire guide has been rebuilt in Adobe InDesign. All other editions were made in PowerPoint, which made it much less cooperative with screen readers. With this redesign, we're working on improving the guide's accessibility for readers with disabilities.

Because this is the first iteration of the new design, it probably still falls short in many ways. If you notice something about the guide's accessibility that needs improvement, please contact support@cultofpedagogy.com so we can work on getting it fixed, if not for this edition then for future updates.

THE TIPS

Some Suggestions for Remote & Hybrid Learning 20

It's a pretty safe bet that some form of remote or hybrid learning will be with us from now on.

Why Bother Learning More About Technology? 24

It's a good idea to occasionally step back and think about the value technology brings to our work as educators.

How to Do Tech Without Losing Your Mind 27

Tech can be tricky even for the most tech-savvy. Without a good plan, you might give up before you ever really get started.

Getting to Know the SAMR Model 30

If you want to get beyond just "using tech for tech's sake," the SAMR model is an important tool for designing your practice.

When Your School is Short on Tech 32

One of these ideas may help improve access at your school.

Wonderings 36

Answers to tech-related questions you might have had, but didn't know who to ask.

What Tool Should I Use? 39

Is there an app that does *this*? Find out here.

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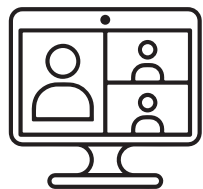
Solutions to common problems with technology.

Quality-Check Your Tech 44

Some tech choices may not be serving our students as well, or as equitably, as they should be.

Know Your Legal Stuff 47

If we are going to use these tools with children, we need to know what the law requires of us.



Some Suggestions for Remote & Hybrid Learning

In the 2020 edition of this guide, Zoom was given a whisper of a mention as a “similar tool” to Skype, along with four other tools. Things have definitely changed since then.

Two years ago, COVID-19 sent us all inside our homes, and since then we’ve all been in

different combinations of remote, in-person, or hybrid learning modes. Regardless of where things are where you live, it probably won’t stay that way, and it won’t likely ever go back to the way it used to be.

If there is a silver lining to all this upheaval, it’s that teachers, students, and parents have all had to get more proficient with technology. Although tech in and of itself is not a magic bullet, having a few more tools and systems in place means we have more options for designing and managing learning experiences for our students, even when we are “back to normal.”

It’s a pretty safe bet that some form of remote or hybrid learning will be with us from now on. It might exist as an option for students who are on extended absences for illnesses or other reasons, for families that want to travel, or for students who simply work better within that kind of arrangement. And as unpleasant as it is to consider, we’ll need to be prepared for other viruses. Even though many would not relish the

**IF THERE’S A SILVER LINING
TO ALL THIS UPHEAVAL,
IT’S THAT WE’VE ALL HAD
TO GET MORE PROFICIENT
WITH TECHNOLOGY.**

thought of moving back to fully remote learning at some point in the future, at least we won’t be caught by surprise next time; we’ll have a much clearer plan for what to do.

Because the amount of information out there on remote and hybrid teaching is overwhelming in volume, this section will only attempt to do two things: (1) summarize some of the big takeaway lessons teachers have shared about effective teaching in these situations, (2) list the tools in this guide that are especially helpful with remote or hybrid teaching.

Some Suggestions for Remote & Hybrid Learning

SIX BIG RULES FOR REMOTE AND HYBRID LEARNING

These “rules” are not official; they have been gathered informally from Twitter, one-on-one conversations, and various articles online. They are simply our curation of some of the more frequent and enduring principles that have come from practicing teachers, experienced experts, and students themselves.

1. Relationships matter more than ever.

When we are all socially isolated, it’s vital that we take deliberate steps to build and maintain relationships; they won’t just happen organically. For your own relationships with students, read [Creating Moments of Genuine Connection Online](#). And to foster better relationships between students, read [Connecting Students in a Disconnected World](#).

2. Video is king.

Because so much instruction has to be delivered through video, it’s essential that we follow best practices for video creation. Find

specific advice on these best practices in Kareem Farah’s post, [Everything You Need to Know About Building a Great Screencast Video](#).

WHEN WE’RE ALL SOCIALLY ISOLATED, WE HAVE TO TAKE DELIBERATE STEPS TO BUILD RELATIONSHIPS; THEY WON’T JUST HAPPEN ORGANICALLY.

3. Less is more.

Remote and hybrid present their own time-consuming challenges, so we have to go for quality over quantity. The amount of work we assign, the number of communication platforms for parents, even the length of time spent on-camera should all be streamlined for best results. In [9 Ways Online Teaching Should be Different from Face-to-Face](#), blended learning coach Melanie Kitchen explains why.

4. Make face-to-face worth it.

Whether it’s in a synchronous video conference or in a physical classroom, the time you spend face-to-face with students should be used for the kinds of activities that require that type of interaction, like discussion, games, active processing of the material, even socializing—not just more direct instruction and worksheets that could easily be done asynchronously. (More discussion of this can also be found in the [9 Ways](#) article linked in #3.)

5. Cohorts work.

In researching for the post [How to Teach When Everyone Is Scattered](#), advice came in from hundreds of teachers who are doing remote, hybrid, or a combination. The most frequent recommendation was to put students into cohorts; in other words, assign them to groups that can work and consult with one another regularly. Doing this allows them to feel more connected and gives them support at times when you may not be available.

Some Suggestions for Remote & Hybrid Learning

6. When in doubt, go with grace.

If there has been a theme in all the conversations about remote and hybrid teaching—especially under current conditions, which seem to have extended well past 2020—it’s *grace*. This is not a time to draw a line in the sand over deadlines, attendance, or small details. It’s a time for being human, for doing what we can and letting everything else go.

For a good dose of the grace you need to give yourself, listen to Angela Watson’s podcast, [For the Teachers Who Are Not Okay Right Now](#). A quote from that post is featured in the box to the right.

“Right now it might feel like everyone who’s not a teacher thinks teachers should just be doing more and working harder, and I just want you to know—I see you. I see what’s being expected of you, and I think it’s just as bananas as you think it is. You are not losing it. You are absolutely correct that what you’re being asked to do is ridiculous and impossible.”

- Angela Watson

Truth for Teachers Episode 209

REMOTE AND HYBRID TEACHING TOOLS

Over the past two years, most tools and platforms have made themselves more remote-learning friendly. Some added new features, others changed their pricing to offer more free options to teachers, and many have held webinars and provided new support materials to show teachers how to use their tools in remote learning. So if you have a tool you once loved face-to-face, chances are it now has an option for remote teaching as well.

And while just about every tool in this guide can also be used for remote or hybrid learning, certain categories have proven to be especially helpful:

ASSESSMENT

When we can’t assess students on paper or in person, the tools in this section offer ways to do it remotely and digitally. Setting up a self-scoring quiz on **Google Forms** is an incredibly fast way to gauge where students are.

Some Suggestions for Remote & Hybrid Learning

AUDIENCE RESPONSE & BACKCHANNELS

These can add a lot more interactivity to synchronous videoconferences. A quick poll can be set up in **Slido**, adding instant interest to any class meeting.

CONTENT LIBRARIES

These sites offer fantastic collections of curated texts, images, podcasts, and videos that can easily be plugged into remote lessons. For some really interesting reading, check out the articles on **Wonderopolis**.

FEEDBACK

The tools in this collection give us ways to offer written, voice, and video feedback to students. **WeVu** has an especially unique approach.

FLIPPED & BLENDED LEARNING

Teaching in remote and hybrid scenarios is kind of the same thing as flipped and blended learning, so this section is custom-made for your needs. **Mindstamp** offers some creative ways to make videos more interactive.

GAMES

These offer a way to make class meetings (in person or through video conferencing) more fun and interactive, while still engaging with content. **Gimkit** has been a popular option in recent years.

PRESENTATION

Direct instruction is an essential part of remote and hybrid learning, and the tools in this section help you do it with style. **Nearpod** and **Pear Deck** both add some great interactive features to typical slideshows.

SCREENCASTING

If you're going to make videos out of any of those presentations, you need screencasting software to do it. **Loom** and **iorad** are two options you may not have tried.

SPEAKING & DISCUSSION

Even if face-to-face speaking is restricted, these tools give you and your students ways to have interesting conversations anyway. **Parlay** has a

rich suite of tools for setting up and tracking the participation in a discussion.

VIDEO CONFERENCING

Without these tools, teaching remotely would be so different! A new collection of tools like **Frame** and **SoWork** have combined video conferencing with virtual reality to make participants feel more like they are interacting in a real physical space.

USING SWIVL FOR REMOTE AND HYBRID LEARNING

If you are running a remote or hybrid learning session through Zoom, Google Meet, or Microsoft Teams, you can set up a [Swivl](#) camera to follow you while you present and still broadcast the content that's on your computer in a separate screen.

[Learn more here](#) about how this works.

THE TOOLS

A

Animated GIFs
Art
Assessment
Audience Response
& Backchannels

B

Blogging &
Website Building
Book Publishing

C

Career Exploration
Classroom Management
Cloud Storage
Collaboration &
Project Management
Comic Strip Creators
Content Libraries
Curation

D

Digital Literacy
Digital Portfolios

F

Feedback
Financial Literacy Flashcard
Creators Flipped & Blended
Learning
Fundraising &
Payment Processing

G

Games
Global Learning

H

History & Social Studies

I

Images & Icons
Infographics
Interactive Lessons
Interactive Posters

K

Keyboarding

L

Language Study
Learning Management
Systems

M

Makerspaces
Math
Media & News Literacy
Mind Mapping
Music

N

Notetaking

P

Parent Engagement
Photo Editing
Physical Education
Podcasting
Presentation
Productivity & Planning

Q

QR Codes

R

Research

S

Science
Social & Emotional Learning
Social Justice & Anti-Racism
Social Media
Speaking & Discussion

Special Ed/UDL

Spreadsheets

Survey Tools

T

Teacher Professional
Development

V

Video: Animation & Production

Video Conferencing

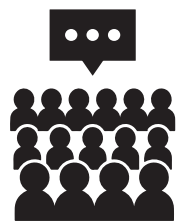
Video: Live Streaming
& Short Form

Video: Screencasting Virtual
& Augmented Reality

Vocabulary Builders

W

Writing



Audience Response & Backchannels

For many educators, at least part of the job includes lecturing to an audience, whether in a classroom, an auditorium, or via videoconferencing. And one big drawback of lectures is the fact that the communication is one-way by default.

The tools in this section change that dynamic by giving audience members the ability to participate more actively and engage with the lecturer without interrupting the presentation.

Most of these tools are controlled primarily by the presenter: The speaker creates a poll or asks a question, the audience responds through their own devices, and the results are displayed on the presenter's screen for everyone in the room to see. These tools provide an excellent vehicle for real-time feedback, brainstorming, and formative assessment.

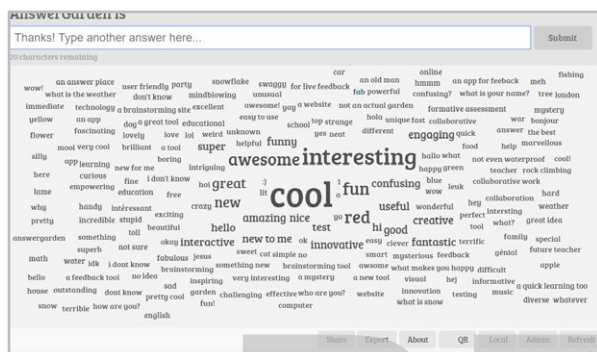
One of the tools in this section, **YoTeach!**, serves more as a *backchannel*—like a “chat room” participants can enter to have an ongoing conversation during another event or presentation. These can be useful when the presenter wants the audience to be able to interact with one another, but doesn't necessarily plan to take questions or poll the audience. Backchannels can also be used to allow students to silently ask each other

questions while watching a video or during a period of quiet independent work in your classroom.

Many of us had our first backchannel experience on a site called Today'sMeet, but they shut down in 2018. Since then, YoTeach! has proven to offer the most similar experience.

AUDIENCE RESPONSE IN GOOGLE SLIDES

If you're a [Google Slides](#) user, you can easily add audience participation by using the [Q&A](#) feature that's built into Slides. Simply show your audience members the unique link assigned to your session, then view and respond to written questions as they come in. Questions can also be upvoted by other audience members, allowing you to respond to the most popular questions.



AnswerGarden

answergarden.ch

With this free tool, you ask your audience a question that can be answered with a single word or short phrase, they respond through a web link, QR code, or AnswerGarden's iOS app, and their answers begin to populate on a display screen in a word cloud. The words that are submitted most often will appear as the largest in the cloud. This is a handy tool to use if you want to brainstorm with a group.



Poll Everywhere

polleverywhere.com

The first company to offer an alternative to [clickers](#), Poll Everywhere started as a service that allowed students to respond to a poll via text message. Now students can also respond through a web browser or through Poll Everywhere's mobile app. Polls include multiple choice, ranking polls, clickable image polls, and questions that include LaTeX syntax and alphabets from world languages.

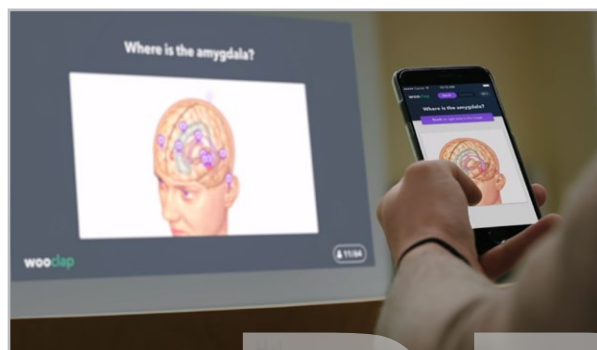
Similar: [Mentimeter](#), [Top Hat](#)



Slido

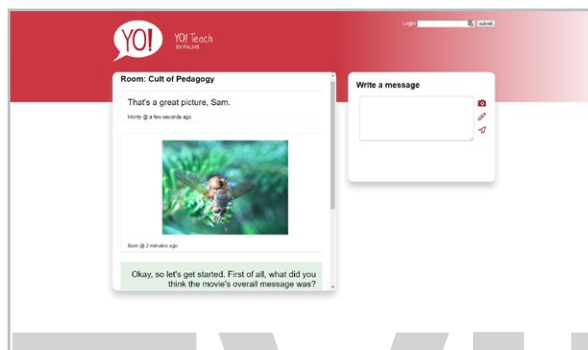
sli.do

With Slido, the audience can submit questions through a regular web browser using a unique event code. The questions that appear on the presenter's screen can be upvoted by other participants, moving the most popular questions to the top. Once a question has been answered, the presenter can remove it from the queue. Slido also offers audience polling with multiple choice and word cloud options.



Wooclap
wooclap.com

Designed for higher education and business use, but perfectly suited for middle school and up, this platform equips presenters with a huge range of options for audience engagement: multiple-choice, rating, ranking, and poll questions, items that ask them to pick a spot on an image, word clouds, even open-ended questions. Participants respond through smartphones, tablets, or computers, and results appear instantly on the presenter's screen.



YoTeach!
yoteachapp.com

With this tool—which saved the day after Today'sMeet closed—you can quickly set up an online chat “room,” making it password-protected or public. Have students enter with their own devices by going to the room's URL, or create a QR code that will send them straight there. Once inside, students can comment, upload photos, or use the pen feature to draw or write by hand. A [new layout](#) was introduced in 2019.

Similar: [Backchannel Chat](#)

MORE BACKCHANNEL OPTIONS IN THIS GUIDE

Many teachers leverage [Google Classroom](#) as an alternative backchannel. Being a part of the Google Ecosystem makes it simple for teachers to use. Additionally, [Padlet](#) can be used as a backchannel as well.

REMOTE POLLING

Both [Zoom](#) and [Google Meet](#) have built-in polling features that can be used before and during webinars or remote meetings.



Blogging & Website Building

The term *blog* stands for *weblog*—literally, a log or diary that is maintained online. It is dynamic—changing on a regular basis—with new posts being added all the time.

Websites, by contrast, don't necessarily change as much. They may be more static, like a

website for a dentist's office, which might only contain a few pages of information that are designed to stay the same day after day. Most contemporary websites—even ones for small businesses—are some kind of hybrid, consisting of a set of static pages and others that change (like a news feed or company blog).

Until fairly recently, you had to have some technical know-how to make a blog or website look good. Now we have a range of free online tools to make blog and website creation much easier for the non-technical person.

The tools in this section allow users to create a blog or website for any purpose. Users can choose a name and a URL for their site, select a theme (the template that sets the colors, fonts, and visual arrangement of the site), and create content for the site's pages. With many of these tools, these basic functions can all be done for free.

This makes them so valuable for educational use. If a user wants to take her blog or website up to another level, where she could actually make money from it and do more

customization, most of these tools have paid (pro) options or other advanced levels to meet those goals.

TEACHER USES

- Keep a classroom blog to inform students and parents about curricular activities, homework, upcoming projects or trips, and announcements.
- Narrow your focus and create a blog or website that explores your content in-depth: Write posts on specific topics, embed videos and links to outside sources, and grow a collection of high-quality materials for student use.
- Start your own personal blog for a wider audience: Write about your teaching experiences or explore a separate interest, like a travel blog, a food blog, a book lover's blog, or even a collection of photos you took of your dog. If the topic is school-appropriate, share your blog with students as a way to model passion-based, lifelong learning.

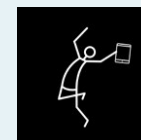
- Create a student-run class blog, where students take turns writing blog posts. Topics could be practical, such as “What we did in class today” to help absent students catch up, or in-depth, such as reflections on content topics, current events, or links to outside resources that contribute to the course.

STUDENT USES

- Document learning and progress in an independent project (see [genius hour](#)).
- Form a collaborative blog with other students as part of a group project; the blog’s posts and pages could become the final assessment for the project.
- Create a blog for a wider audience, such as a blog on a particular hobby or interest, like [Baseball with Matt](#).

- Use the blog as a springboard for an entrepreneurial project, such as selling T-shirts, e-books, or video courses on a topic that interests them.
- Participate in a student-run classroom blog (see previous section).

Read [A Few Creative Ways to Use Student Blogs](#) for more blog ideas plus tips on helping students choose a focus, assessment recommendations, and advice for students who want to take their blogs beyond school.

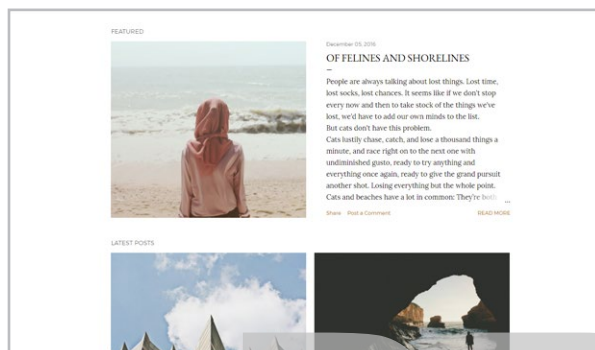


LEARN MORE ABOUT BLOGGING IN JUMPSTART

Blogging is one of the 10 modules we study in JumpStart, our online technology course for teachers. Learn about the course [here](#).

SIMILAR TOOLS

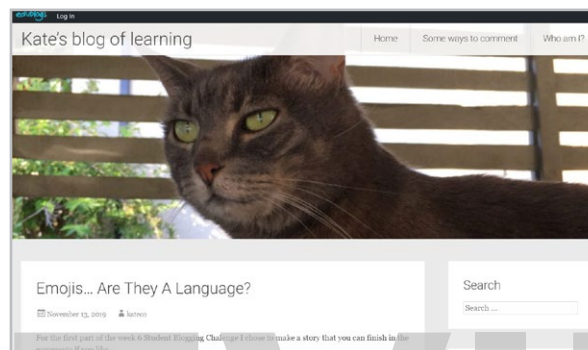
- [Google Sites](#) is free. It doesn’t have built-in blog functionality, but you can create a nice static website with it.
- [Squarespace](#) and [Webs](#) offer paid plans only.



Blogger

blogger.com

The designs on Google's free blogging tool are more limited than other sites, but it does offer some advantages. One is that users can earn money through Google's AdSense ad program. This may seem irrelevant in a school setting, but many teachers are now blogging to earn extra income, and students may be curious to learn how online businesses earn revenue. Another advantage is the reliability of being backed by Google. **Note:** As of September 2021, Blogger is no longer available for users under age 18. [Learn more here.](#)

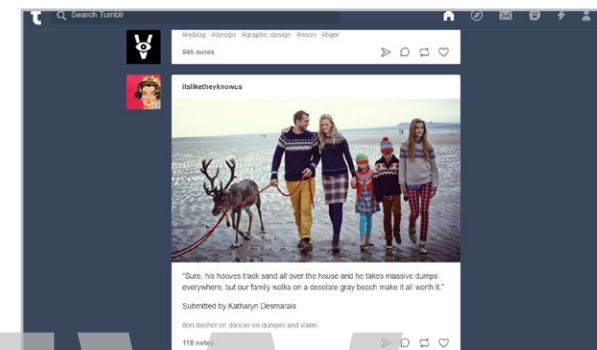


Edublogs

edublogs.org

Edublogs provides everything you need to set up and maintain a class set of blogs. The teacher has complete control over all the content in student blogs. You can set things up so that you approve all student posts and comments before they are ever seen publicly; this makes Edublogs a great place to learn and practice blogging.

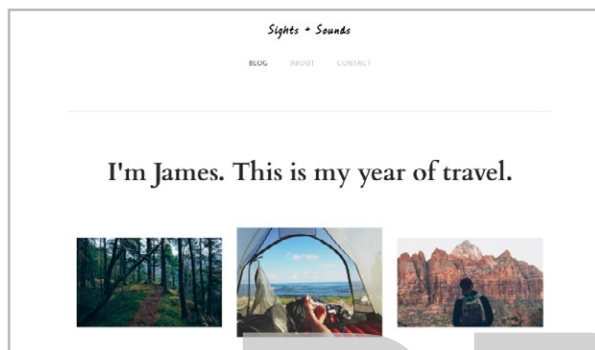
Similar: [Fanschool](#) (formerly Kidblog)



Tumblr

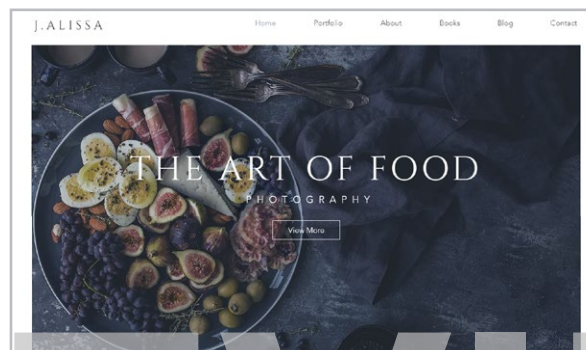
tumblr.com

Tumblr is considered a microblogging site, where people "blog" with very small posts, but there is no limit to how long a post can be. A Tumblr post can consist of regular text, a photo, a nicely styled quote, a video, or an audio clip. When others see your posts, they can "like" them or reblog them on their own Tumblr pages. **Not recommended for school use as it is too easy to stumble on adult content.** Activity on Tumblr seems to have declined in recent years. Read more [here](#).



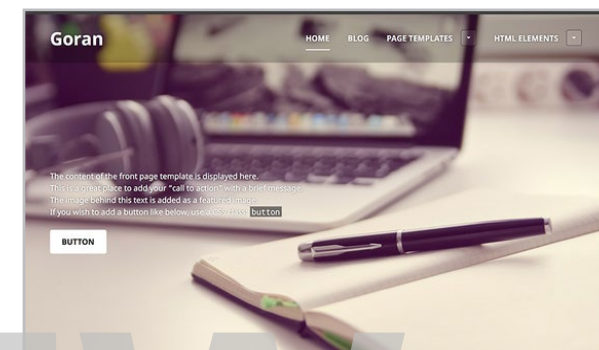
Weebly
weebly.com

Weebly is one good option for creating a great-looking website with very little technical knowledge. They have a big library of beautiful templates to choose from, their drag-and-drop design tool is easier to learn than on many other site builders, and their free plan allows you to create a blog or website without spending a dime. [Weebly for Education](#) allows teachers to manage groups of student websites, which can be password protected.



Wix
wix.com

Wix is another good choice for quickly creating a fresh, modern website without a lot of hassle. Like Weebly, Wix offers drag-and-drop design, plus a library of free high-quality images and video backgrounds users can add to their sites. It will provide instant gratification to beginners who want to quickly experience the power of starting their own site without getting too technical or making major changes.



WordPress
wordpress.com

Best for people who want a lot of control over how their site looks and operates and do not mind a steeper learning curve, WordPress is widely regarded as being one of the premier website-building platforms. It is more challenging to learn than the other platforms, but if you or your students have plans to take blogging seriously, you may eventually find yourself moving to a WordPress site, so you may want to start now.



Book Publishing

Technology has made it easier than ever to publish your own book without the need for a traditional publisher. As more educators embrace authentic learning, self-publishing offers unprecedented opportunities for students to get their ideas in front of real-world audiences.

This section looks at tools that take three different approaches to self-publishing:

Print and e-books meant for serious publication and distribution (like Lulu). These cater to writers who want to sell their books

to the general public. These services include support for formatting books for e-readers and setting up a print-on-demand arrangement, which allows writers to sell their own physical books through online retailers like Amazon.

Print and digital books for personal use (like Blurb). These tools help users create and then purchase their own books in paperback or hardcover. Users can work from templates or build their own. Artwork for these types of platforms is usually uploaded by the user.

Digital storytelling platforms (like Book Creator, Ourboox, Storybird, and WriteReader) where users create digital storybooks, viewable only online. On some, artwork is supplied by the platform, and on others, users upload their own. Some platforms even allow the addition of audio, video, and hyperlinks to the book.

Classroom Uses

- Create an online library of student stories with tools like Storybird, where students can comment on each other's work.
- Use a tool like Blurb to publish a class writing or art anthology, a gallery of science

fair projects, or a yearbook of club or team memories to use as keepsakes.

- Students or teachers can publish and sell books through a service like Lulu. Learning how to do this takes time, but those who aspire to become professional writers are likely to find the process exhilarating.
- Using a tool like Book Creator, produce a digital book as the final product for a research project or other independent project. These can range from the exploration of a science or social studies topic, to journalism on a current event, to an art or photography portfolio.

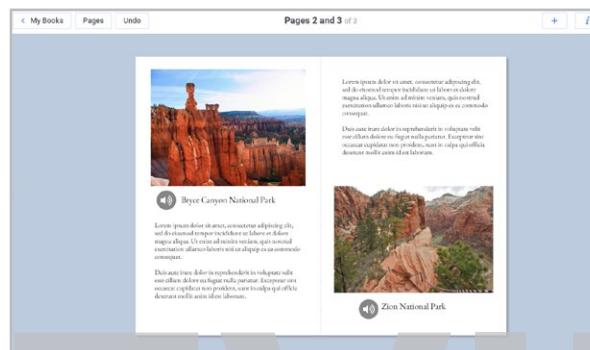
MAKE EASY PDF BOOKS WITH POWERPOINT OR GOOGLE SLIDES

If you and your students want to create simple PDF books, you can do it easily with PowerPoint or Google Slides. Learn more in [Student-Made E-Books: A Beautiful Way to Demonstrate Learning](#).

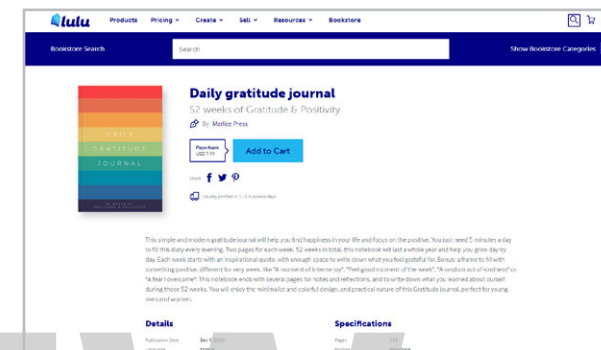
**Blurb**blurb.com

This site helps you create photo books with text, using templates for a variety of book types: cookbooks, children's books, portfolios, memoirs, magazines, and more. Books can be kept in digital form or purchased as a paperback, a hardcover book, a magazine, or an e-book. Printed books are not cheap; save this for something special.

Similar: [Chatbooks](#), [Mixbook](#), [Shutterfly](#), [Snapfish](#)

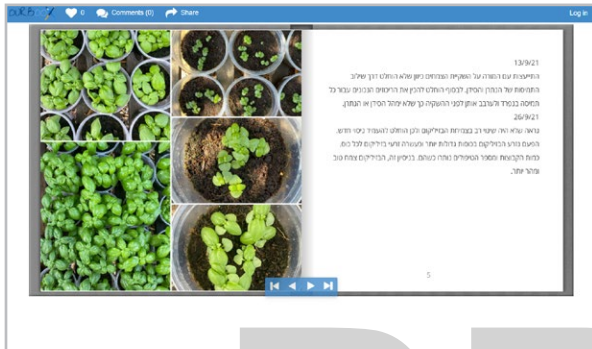
**Book Creator**bookcreator.com

This flexible tool allows students of any age to create e-books. These books can contain photos, text, audio and video files, hand-drawn images, even embedded content like Google Maps or Flipgrid grids. Finished books can be shared through a link, downloaded as an EPUB, or even sold through iBooks and Google Play. Teachers can create classroom libraries, and the site has tons of resources and ideas for classroom use.

**Lulu**lulu.com

For writers who want real publication, print-on-demand sites like Lulu are growing in popularity. Authors upload manuscripts, then sell print and e-books through markets like Amazon. Authors are not charged a fee to publish: When a book sells, Lulu earns back the cost of production plus a percentage of the profit, and the author keeps the rest.

Similar: [Amazon KDP](#), [Smashwords](#)

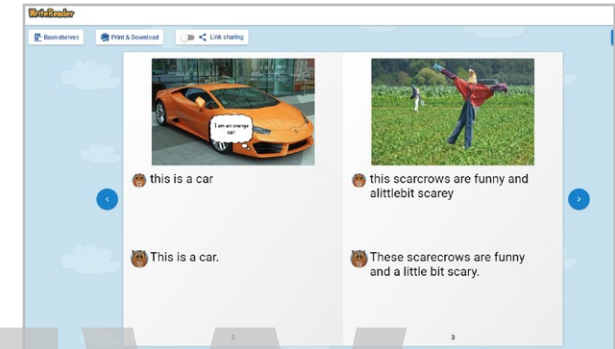
**Ourboox**ourboox.com

Ourboox is similar to Book Creator, but much simpler. It has one thing that sets itself apart from all other online book platforms: languages. Books on Ourboox can be published in right to left format, which supports languages like Arabic and Hebrew. You can also upload a PDF to have it published in book format on their site.

**Storybird**storybird.com

Although this site is no longer free, it may be worth the price. Users begin by browsing through a gallery of professional artwork until they find an inspiring image, and then they write a story or poem to accompany the image. They can choose a collection of images and build a picture book around it. The site also offers excellent resources for teachers, like writing lessons and private class settings.

Similar: JamBios

**WriteReader**writereader.com

This is a great tool for emerging writers. As students type in text, WriteReader will say either the name of the letter or the sound it makes, allowing students to get auditory confirmation that they are choosing the right letters. To enhance their books, students can add images or voice recordings, and teachers can add adult-written text below the child's writing. Finished books can be printed or downloaded as PDFs.



Feedback

Before digital tools arrived, giving feedback was an incredibly time-consuming process: Whatever feedback we gave had to be done verbally or in writing, and there was no way to speed it up or replicate it for repeated use. That placed big limits on how much feedback we could give.

The tools in this section make feedback easier, more effective, and more efficient. With these tools, teachers (or students) provide written or

voice comments on student work in an online space, and because they are digital, we can save, review, and replicate them for future use.

CLASSROOM USES

- Provide ongoing feedback to students on all kinds of written work, from formal writing pieces to lab reports.
- Have students collaborate on assignments, using comments to document their collaboration and provide evidence of how much effort was put into the project by each student.
- Have students submit online journals and engage in an ongoing, back-and-forth discussion by using feedback tools. See [this post](#) about how dialogue journals work.
- Have students provide peer feedback and assess their work not only on the quality of the product itself, but on the quality of the feedback they give others.
- Invite parents to contribute comments, questions, and feedback to documents.

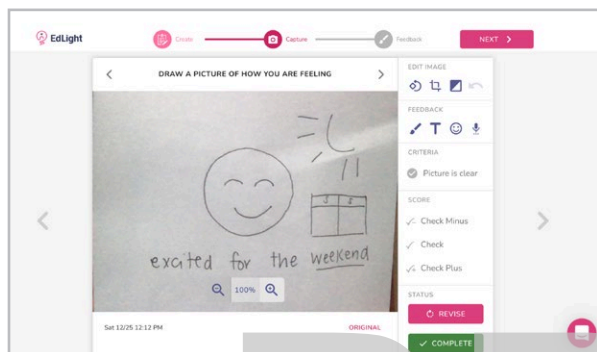
MORE FEEDBACK TOOLS

Many tools in this guide contain built-in feedback capabilities.

- Some tools in the [assessment](#) section, like Formative and Kiddom, include feedback options.
- Most [learning management systems](#) have robust feedback systems.
- The [collaboration and project management](#) tools are natural platforms for giving feedback.
- Platforms like [Google Workspace](#) and [Microsoft's](#) suite of tools offer commenting features within many of their applications.

FASTER FEEDBACK

The faster you can give feedback, the more you can do. In this 2020 interview with Matthew Johnson on [Flash Feedback](#), he shares three strategies for giving feedback more quickly.



EdLight

edlight.com

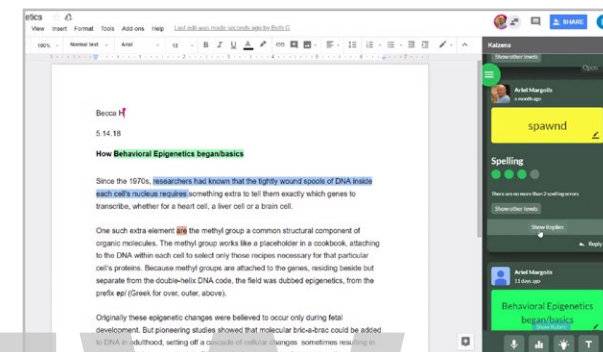
Whether remote or in person, collecting student work and providing specific feedback is easy with EdLight. When teachers post assignments they list required criteria for the task. Students take a photo of their work using any device. Teachers then comment directly on the work, checking off included criteria before sending it back. Teachers can view an entire class's assignment and note gaps or needs at a glance.



Floop

floopedu.com

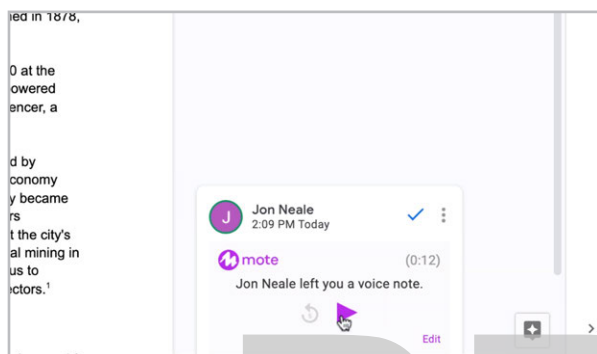
Floop was built by teachers to allow for feedback with much faster turnaround time: Students send pictures of their work in progress to the teacher, along with questions they need help with. The teacher views the work, types in comments that are anchored to specific locations on the photos, then sends it back to students, starting a feedback loop that allows for iteration and improvement. Also included is an anonymous peer-review option.



Kaizena

kaizena.com

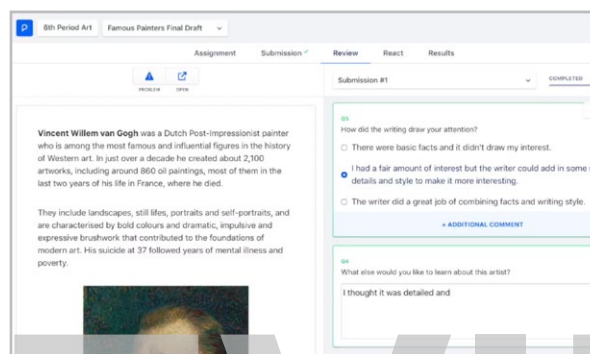
With this web app and Google Docs add-on, teachers can leave many types of feedback: written comments, voice recordings, links to lessons on a concept related to the issue found in the student's writing, and rubric-based feedback using rubrics created inside the app. To save time, teachers can build a library of frequently used text or audio comments to pull from. When students receive feedback, they can reply to it with voice or text.



Mote

justmote.me

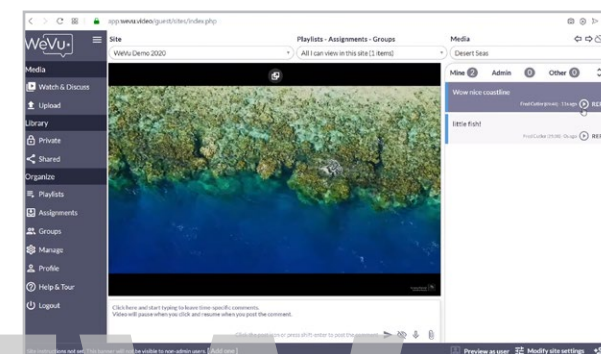
This Google Chrome extension allows users to add voice comments in the comment field of any Google Docs, Slides, or Sheets file, or inside Google Classroom. With the paid plan you get a longer time limit for comments, auto-generated transcriptions of comments, and the ability to save voice comments for re-use in an online library.



Peergrade

peergrade.io

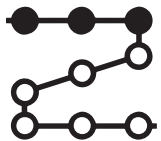
On this platform, students can evaluate each other's work anonymously. After the teacher creates an assignment and a rubric, students submit their work. Next, Peergrade randomly distributes the assignments to different classmates for evaluation. Students use the rubric to anonymously give feedback to their classmates. After viewing the feedback given to them they can rate the comments as helpful or not, and even flag problematic comments.



WeVu

wevu.video

This platform allows students to upload videos and the teacher can attach comments to specific timestamps on the videos. This type of tool is invaluable for performance- or skill-based courses like music, languages, physical education, public speaking, or nursing.



Interactive Lessons

Several apps have come along that help us create interactive experiences for users: online games, digital worksheets, or presentations that behave like self-help kiosks, giving information as the user clicks through various screens.

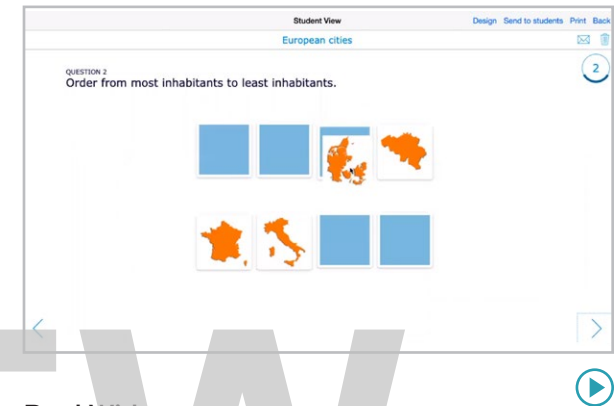
These tools can be digital replacements for some of the things we've used in school for centuries: books, handouts, worksheets, and lectures. But it's important to note that these offer the same kind of rote learning we've been doing since the dawn of formal education.

In most classrooms, some rote teaching and practice is necessary. Being able to review basic knowledge and information can certainly be part of a well-rounded instructional program. The tools in this section can make those kinds of activities more efficient and enjoyable.

But proceed with caution: If you are using a lot of tools like these, and you use them mostly to replace the same exercises you've used in the past, you're only operating at the "substitution" level of the [SAMR Model](#). In other words, you're doing the same exact thing with technology that you did without it. This could very well mean that student learning in your classroom hasn't been improved by technology at all. Before you dive into this section, read more about the thoughtful use of worksheets in our post, [Frickin' Packets](#).

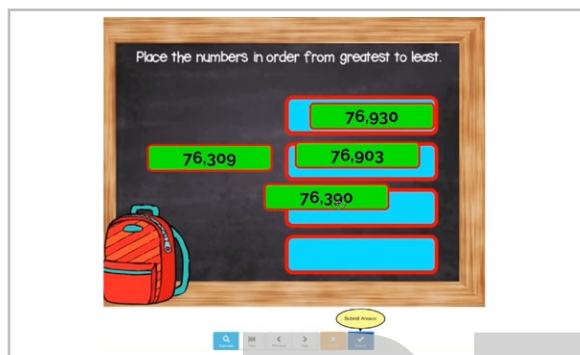
TWO MORE OPTIONS

Head to the Presentation section and take a look at [Nearpod](#) and [Pear Deck](#), which allow you to send a slide deck to student devices and add interactivity to them.

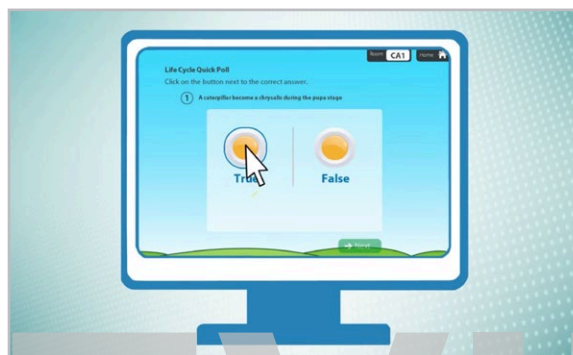


BookWidgets
bookwidgets.com

This tool allows you to create "widgets," interactive exercises like flashcards, crossword puzzles, a hangman game, matching games, and many more. These can be shared with students through a URL or embedded into another site. Most widgets are self-graded, allowing you to check for student understanding right away.

**Boom Learning**www.boomlearning.com

On Boom Learning, teachers create decks of “Boom Cards,” digital, self-grading exercises on your course content. Cards can contain multiple choice, fill-in-the-blank, or multi-picture responses. If you would rather not make your own card, you can also purchase some from the Boom Learning Store. You can also create and sell your own decks in the store.

**Class Responder**classresponder.com

From the pre-made activities to the create-your-own options, this platform is ideal for reading assignments for grades K-6. The standards-based activities include multiple choice, true/false, and short answer. Student work is recorded in real time for teachers to utilize, and activities can be played in class or assigned as homework.

**Deck.Toys**deck.toys

On this platform, teachers create interactive lessons called Decks. These are pathways (almost like visual [HyperDocs](#)) students follow to complete different activities that teach them about a topic or test their understanding. Pathways can be created with locks, so that students must complete one activity in order to unlock the next, or they can be more open, allowing students to choose activities.



Genially
genial.ly

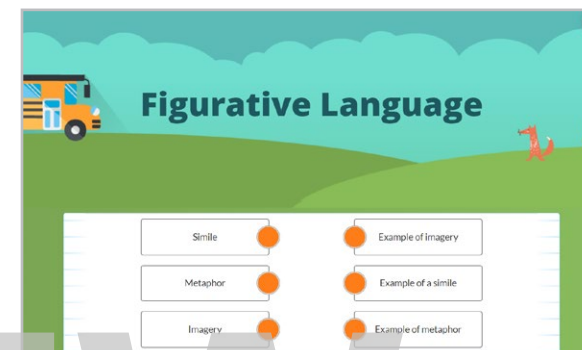
With this tool, you create simple games, infographics, interactive modules (like stand-alone kiosks where you click on images and information pops up) and click-through instructional units. Use it for blended learning or for student-created interactive presentations. While content is presented in an interactive way, statistics are only available in the paid plan.

Similar: [GoConqr](#), [Educaplay](#)



oodlū
oodlu.org

On this site, students answer content-based questions in a basic quiz format. These can be questions you enter yourself or pulled from a bank of thousands of teacher-created questions. If they get the answers correct, their reward is to spin for a chance to play one of oodlū's games. In other words, the questions aren't part of the game; the game play comes after answering the questions. Students get a choice of 20 games to play.



Wizer
wizer.me

On Wizer, teachers create digital versions of worksheets. These can contain multiple choice, fill-in-the-blank, and open-ended questions, matching and sorting tasks, and image-based questions. The worksheets can include external links, videos, and other types of embedded content. Teachers can see and give feedback on student responses, and you can share and use worksheets created by other teachers in the Wizer community.



Notetaking

Notetaking apps are a lot more than digital versions of the paper we might ordinarily use in the analog world: Some are more like binders, helping us organize notes into sections, giving us handy pockets to store documents we receive from other sources, and so much more. Some allow us to layer notes, or annotations, over existing documents, and others combine the ease of paper notes with the convenience of digital ones.

Classroom Uses

- Use **Evernote**, **Google Keep**, or **OneNote** to keep your “teacher stuff” organized. Students can use these to organize their own notes and documents. For big projects, they can sort notes into tabs or sections, then share them with you through a link.
- Students can annotate PDFs for close reading or research with a tool like **Kami**. They can do the same with online articles using tools like **Hypothesis**. If you want to watch your whole class comment and annotate a reading together, try **Edji**.
- Teach [sketchnoting](#) or graphic note-taking with tools like **Notability**.
- Students who prefer handwritten notes may want to invest in a reusable **Rocketbook** notebook and upload notes to the cloud.

New This Year

Diigo moved once again! This tool has so much functionality, we were unsure where to house it in the guide. After crowdsourcing on Twitter, we moved it out of Notetaking and back into [Curation](#).

WHAT DOES THE RESEARCH SAY?

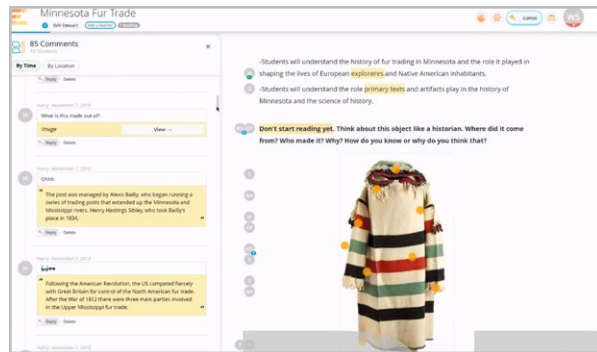
Is notetaking even important anymore? The research says YES. [This overview](#) of the research on notetaking summarizes best practices.

TEACHING STUDENTS TO TAKE GOOD NOTES

Humans aren’t born knowing how to take notes, so if we want them to do it well, we need to teach them how to do it.

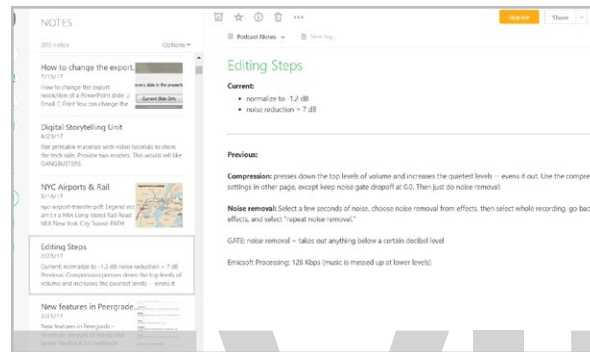
I recommend that you show students several methods and let them experiment until they find a style that works for them. [This video](#) from College Info Geek reviews five different notetaking strategies, and [this station rotation method](#) is an excellent way to introduce students to the different styles.

Edji | Evernote | Google Keep | Hypothesis | Kami | Notability | OneNote | Rocketbook



Edji
edji.it

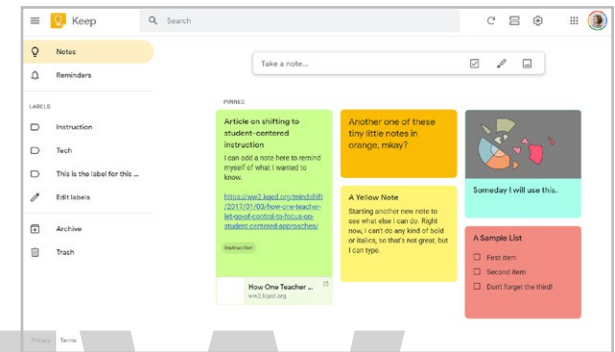
This group annotation tool is fantastic for close reading. Teachers create a reading from a PDF or pasted from a website. As students read, they add written or audio comments and questions. The teacher can see all comments at once, and can even make them visible to everyone, so students can discuss the text together. It also works with an image or GIF, where students can click directly on the image and add a related comment.



Evernote
evernote.com

Evernote lets you write searchable notes in formatted text or in handwriting, collect web clippings or screenshots, attach files, and record audio notes. Notes can be sorted into notebooks and tagged by topic, making Evernote great for organizing tons of notes across many areas of life. This tool is so jam packed with features that checking out [this playlist](#) for a more complete overview is so worth it.

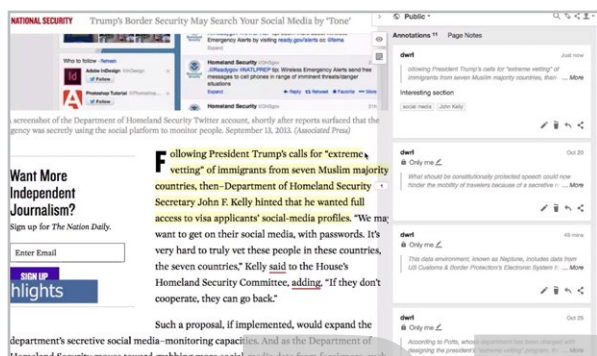
Similar: [Notion](#), [Simplenote](#)



Google Keep
keep.google.com

Simpler than many of the other tools in this section, Google Keep is kind of a corkboard where you add notes. A note can contain regular text, a checklist, an image, a drawing, even a voice memo that can be converted to text. Once a note is written, it is added to your Keep as a tile. You can label notes, add collaborators to them, and add reminders to specific notes. Keep comes built-in to Google accounts, so if you have one of those, you can try it right away!

Edji | Evernote | Google Keep | Hypothesis | Kami | Notability | OneNote | Rocketbook

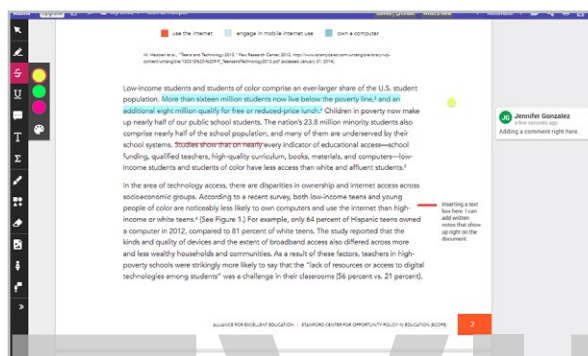


Hypothesis

hypothes.is

This browser extension allows you to highlight and take notes on any web page. You can make your posts public or private or share them in a group, tag them to make them easier to sort, and view public notes taken by other people on the same pages. Your Hypothesis profile page will keep track of all your notes and highlights across the web, so you can revisit them at any time. This makes Hypothesis a great tool for online research and discussion.

Similar: [Beanote](#)



Kami

kamiapp.com

Kami is an online document annotation and markup tool. Starting with a PDF or any other type of document, users can highlight, strike through, and underline text. They can also insert text boxes, add comments, even draw and add shapes, which would be helpful if students are learning how to “code” certain types of text. Great for schools trying to use less paper!

Similar: [DocHub](#)

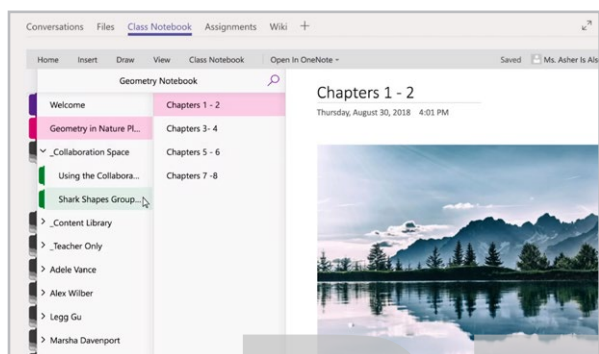


Notability

gingerlabs.com

This iPad app combines the best of paper and word processing: With the text feature, notes can be typed with text formatting options, a variety of fonts, and math and science symbols. Using a pen or stylus, users can handwrite notes and create sketches and diagrams in different colors and pen widths. Users can also add images, GIFs, sticky notes, web clips, and even audio notes.

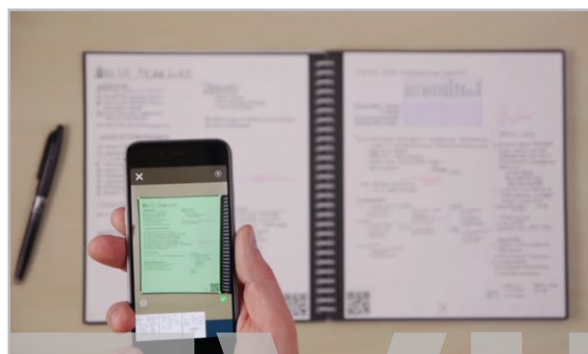
Similar: [Penultimate](#), [Squid](#) (Android/Chrome)



OneNote

products.office.com/onenote

Microsoft's note-taking tool is set up like a binder with colored tabs, making it great for organizing lots of notes. Along with formatted text, you can add images, handwritten notes, clipped content from online sources, files, audio notes, and videos. The [Class Notebook](#) add-in allows teachers to create notebooks accessible to whole groups of students.



Rocketbook

getrocketbook.com

The Rocketbook is a physical notebook that you write in using washable ink, transfer the notes to the cloud by capturing them with a phone or device camera, then erase the book and start over. QR codes at the bottom of the notebook's pages can be set up to align with user-created folders in cloud storage such as Google Drive. The notebook comes in different sizes with different layout options (including an academic planner) and other features.

Similar: [Wipebook](#)

THE TERMS

A

Google

Q-S

B

H-I

T-U

C

J-O

V-Z

D-E

Microsoft

F-G

P

add-on: similar to a browser extension, a small piece of software used to enhance the performance of another tool

affiliate marketing: a relationship in which one entity (like a blogger) gets a small percentage of sales from another company (like Amazon) when they send their audience to that company through an *affiliate link*

AI: *artificial intelligence*; the ability to perform tasks that normally require human intelligence. Tools like [AutoDraw](#) look at what a user is drawing and use AI to guess at the intended shape.

algorithm: a set of instructions telling a computer what to do. For example, if you search for the term “pizza” in Google, the site uses search algorithms to find the most popular results for that term. Lately, when people talk about algorithms, they are referring to the kind used by social media platforms. A site like Facebook uses complex algorithms to keep track of what people you’ve interacted with and what types of content you like so they can customize the experience for you, showing you more of what you like. Social media companies are constantly adjusting these algorithms, which can frustrate users. Example: “I never see your posts on Instagram! I bet they changed their algorithm again.”

Android: the operating system used for many non-iOS smartphones, such as Samsung Galaxy

app: (short for *application*) a software program. Any software, like PowerPoint, is an application, but app usually means a smaller-sized software with a limited job, like tracking calories, that typically lives on a mobile device.

app smashing: using multiple apps or tools together to complete a task

AR: *augmented reality*; a technology that uses apps to layer digital elements over real-life objects and photos; learn more in the [Virtual & Augmented Reality](#) section

ASMR: *autonomous sensory meridian response*, a physical sensation people experience when they hear pleasant tactile sounds. In recent years, ASMR videos—showing nothing but people brushing their hair, typing, whispering, or turning pages in a book—have exploded in popularity on YouTube. Upon first seeing these videos, you will probably think they’re pretty odd, but the calming effect they have on people is starting to get the attention of researchers. [Learn more here.](#)

asynchronous learning: a learning experience where participants engage at different times, such as watching a video and completing an activity at their own pace. This is the opposite of a *synchronous* experience, in which all participants engage simultaneously, like attending a live lecture via videoconferencing.

avatar: an image or icon, often illustrated, representing a person in a video game, in social media, or in a software program

backchannel: a secondary discussion that happens at the same time as a larger event

bandwidth: the amount of data that can be sent over an internet connection at one time

beta: an unfinished or “really good draft” version of a computer program or tool. When you hear that something is “in beta,” it means that it has all of its basic parts, but the kinks haven’t all been worked out yet.

bitcoin: one of the most recognized types of [cryptocurrency](#)

Bitmoji: a cartoon version of a person’s image, used in digital spaces. Bitmoji is the brand name of an [app](#) that creates these images.

blended learning: a teaching approach that combines traditional instruction with online learning

blockchain: a ledger or record of all [cryptocurrency](#) transactions that occur throughout the world

blog: short for weblog; basically an online diary, a series of posts that are updated regularly

Bluetooth: a technology that uses radio waves to let devices communicate across short distances wirelessly. A Bluetooth headset lets you talk on your phone without holding it up to your ear or using speakerphone.

bookmarklet: a bookmark stored in your browser that allows it to do a specific task; like a browser extension, but it won’t slow down your browser as much

bot: a computer program designed to perform repetitive tasks that would be time-consuming for humans, like looking for new pages online and indexing them for Google. Recently, bots have been created to impersonate humans on social media in order to influence public opinion on political issues. [Learn more here.](#)

breadcrumbs: small text paths usually found near the top of a web page that show how you got to where you are. Ex: A breadcrumb trail might say Home > Books > Nonfiction.

breakout room: a separate “room” to send participants in a larger videoconference meeting so that smaller groups can have a more intimate conversation

browser: short for *web browser*; software that lets you browse the internet. Popular browsers are Chrome, Safari, and Microsoft Edge.

browser extension: a tool added to your web browser that gives it new functions, like letting you quickly add an item to your Evernote notebook, or pin an item on Pinterest

buffering: pre-loading data into a separate area of memory so it can be accessed at a later time. When streaming a video, the service will *buffer* chunks of the video to prevent the video from lagging during playback.

BYOD: *bring your own device*; a policy in which students are allowed to bring their own cell phones, tablets, or laptops to school and use them during class to enhance learning

byte: a small unit of measurement for electronic data. Most files we interact with contain far more than a single byte of data and are measured in kilobytes (KBs) or megabytes (MBs).

cache: (pronounced *cash*; both a noun and a verb) a mechanism that stores recently used information so it can be quickly accessed later. Your browser will often cache recent web pages you've visited so the next time you visit them, it re-loads them from memory, rather than going back to the site and loading everything from scratch. This makes things faster. Often when people are having trouble with a website, they are advised to "clear their cache," which erases that memory and forces your browser to start fresh with the newest information from the site.

chatbot: a piece of software that conducts a text- or voice-based conversation "like a human being." When you call a company on the phone, you're often put through a phone tree by a chatbot. When you go to a site and a pop-up asks if you need help, that's usually a chatbot starting the conversation, although a real person may take over after a few minutes.

clickbait: a derogatory term used to describe attention-getting headlines designed to entice people to click over to a website, like "This secret will get you more women!" Often, the headline doesn't accurately represent the thing it leads to.

clickers: handheld, portable devices given to students in a classroom, allowing them to respond to questions and have their responses collected via radio transmission

cloud computing: using a network of remote servers (large systems like Google Drive, for example) to create, share, and store files, rather than performing these operations on a local network, such as your home computer or office network

cookie: a small text file containing information about you and what you're interested in, based on your browsing history. A cookie is stored in your web browser and is sent to websites you've already visited to help them customize your visit. If I go to [Zappos](#) and look at a particular boot, even if I don't create an account or anything, the next time I visit, that boot will be a featured product. That's cookies at work.

Creative Commons: a nonprofit [organization](#) in the U.S. whose mission is to make it easier for people to share creative work. Photos, videos, music, and other creative work that has a Creative Commons license is available for others to use in their own projects under certain conditions. Learn more in my article, [Teaching Students to Legally Use Images Online](#).

crowdfunding: using websites like [GoFundMe](#) and [Kickstarter](#) to raise funds for independent, often creative projects.

crowdsourcing: gathering information from a large sample of people, usually by asking for input via the internet

cryptocurrency: a completely digital form of currency, such as bitcoin. Two advantages of cryptocurrency are that (1) unlike money, it is decentralized, passing directly from person to person, rather than being controlled by banks or the government, and (2) because transactions are encrypted, they are very difficult to counterfeit. [Learn more.](#)

dashboard: a term used by many programs to describe the user’s “control center,” the place where you get an overview of your account and your activity within that program

deepfake: a form of media that has been manipulated with artificial intelligence to generate authentic-seeming audio, video, or imagery. See an example [here](#).

digital citizenship: the standards for etiquette, ethical conduct, and safe behavior while using technology

digital literacy: being versed in the terms and concepts associated with using technology and digital tools

digital native: nickname for a person who grew up with technology—personal computers, internet access, etc.

DM: *direct message*. A message that is sent through social media platforms, but in private. A person’s followers can’t see a direct message; only the person it’s sent to can read it. When someone says they will “DM” someone, they are planning to send a direct message.

domain name: the part of your URL that identifies your IP address. (In the URL <http://www.cultofpedagogy.com>, the domain name is cultofpedagogy.com.)

doxing: publicly broadcasting private or identifying information about a person with an anonymous online presence in order to expose their identity

e-commerce: buying and selling items through the internet

EdCamp: a type of [unconference](#). A “TeachMeet” is basically the same thing.

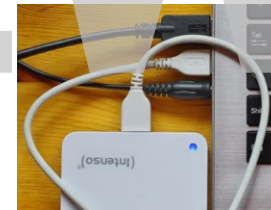
embed: to insert one item, such as a video, into another item, such as a website, in such a way that it retains all of its functions and can be operated from within that second item. The symbol for embedding looks like this: < > To learn how the above is done, watch [How to Embed a YouTube Video](#).

emoji: small pictures that can be inserted into texts and other digital communication. (By the way, some publishers agree that it’s okay to use *emojis* as the plural for *emoji*, while others feel strongly that the word *emoji* is both a singular and a plural, like the word *sheep*. Read [this post](#) from the Grammarly blog for more information.)

emoticon: also called a smiley; a sequence of characters made to represent a facial expression or some other visual image, like this: :-). See this [List of Smileys and Emoticons](#) for examples.

extension: see [browser extension](#)

external hard drive: a small device, somewhere between the size of a wallet and a paperback, where you can store electronic files (documents, photos, videos, etc.). These come in handy when you need extra storage space on your computer or you want to back up your files outside of your computer.



external hard drive

file extension: the suffix at the end of a file name that tells you what type of file it is. The file extension for a PowerPoint file is *.ppt* or *.pptx*. The extension for a JPEG image is *.jpg*.

firewall: network security device that monitors incoming and outgoing activity. It allows or blocks traffic depending on whatever rules are set for your network. So for example, you may not be able to access social media sites at work because they are blocked by your district's firewall.

Flash: an animation software that has been discontinued. Sometimes you may have trouble running parts of a website because your Flash player is not installed or up-to-date.

flash drive: a small storage device—not much bigger than a stick of gum—that plugs into your computer's USB port and allows you to store and transport electronic files; also called *thumb drive*, *jump drive*, *data stick*



flash drives

gamer: a person who regularly plays video games, especially if they do so competitively

gamification: a way of motivating students to learn by adding elements of games (especially video games) into the learning environment, such as “leveling up” and earning badges for reaching certain milestones

GB: *gigabyte*; a unit of measurement for electronic data equal to 1,000 megabytes

1,000 KB = 1 MB

1,000 MB = 1 GB

1,000 GB = 1 TB

genius hour: one hour per week (or per day, depending on a teacher's schedule) given to students to pursue their own interests; also see 20 percent time. To learn more, read [Your Top 10 Genius Hour Questions Answered](#).

GIF: *graphics interchange format*; a widely used image format, especially for simple graphics. An animated GIF is a set of images coded to display in a specific order, giving the appearance of movement. To make one of these yourself, visit our [Animated GIFs](#) section.

graphics card: a piece of computer hardware responsible for producing the images on the computer. These are built into most laptops and standard computers, but users who work with a lot of video or gaming often want to upgrade to a more powerful graphics card or get one that performs better, which is more expensive. Also known as a *graphics processing unit* or *GPU*.

GOOGLE CHEAT SHEET

Google offers an incredible collection of tools, most of which are free. Because new tools are created all the time, it can be a challenge to keep track of them all. This chart shows you how Google's most well-known tools fit together. To learn more about the entire Google product line, [visit this page](#).

Google: The whole company. Also the name of its search engine. When you “Google” something, you’re looking it up on Google’s search engine.

Google Workspace: All of the apps offered by Google (listed below). Formerly known G Suite, and as of December 2021, the education version of this is called Google Workspace for Education.

Blogger: a blogging platform

Calendar: a personal online calendar

Chat: (formerly Hangouts) a video and written chat system embedded in Gmail. Chat rooms are called Spaces.

Classroom: a learning management system using Google Workspace for Education. Google Assignments offers some of Classroom’s features to other LMS platforms.

Docs: word processing

Drive: Google’s cloud storage service

Duo: high-quality video chat for mobile devices

Earth: a “satellite geobrowser” that lets you look at any point on Earth up close and create, collaborate, and share travel stories and maps

Forms: forms and surveys

Gmail: email

Jamboard: a collaborative whiteboard tool

Keep: a collaborative note-taking tool

Maps: a mapping and GPS tool

Meet: a videoconferencing tool (like Zoom)

Photos: cloud-based photo storage

Sheets: spreadsheets

Sites: website creation

Slides: presentation

Translate: a language translation tool

YouTube: video platform owned by Google

OTHER GOOGLE TOOLS & RESOURCES

Playstore: website and app where users can download apps and tools

Chrome: Google’s web browser

Chromebooks: laptops that run on Chrome and are loaded with Google apps

Scholar: an academic research tool

AR & VR: a collection of augmented and virtual reality resources

Be Internet Awesome: free curriculum for teaching digital citizenship and safety to kids

CS First: free computer science curriculum that allows students to learn coding independently; designed for teachers with little to no computer science experience

hashtag: a word or phrase combined with the hash or pound symbol (#), creating a unique search term that can be more easily found on social media platforms like Instagram and Twitter. The hashtag #5aDay is used when people post things related to getting more fruits and vegetables in their diets.

HDMI: *high-definition multimedia interface*; a common type of cable for transmitting digital video and audio from a source (like a computer) to a monitor, screen, or projector.

hotspot: a place that has an accessible wireless network (Wi-Fi). This might be a restaurant, a library, even a park. Learn more about hotspots in the [Troubleshooting](#) section.

HTML: *hypertext markup language*; the language used to create web pages. Think about a website as a stage performance. Everything you see on the screen is “on stage.” HTML is like the script, stage, and lighting directions for the performance. For example, to make a word appear in italics, you’d add the `<i>` tag around it, like this: `<i>word</i>`.

http/https: *hypertext transfer protocol, secure hypertext transfer protocol*; a set of rules for transferring files on the internet. The “s” in https indicates that your information is being encrypted—or changed into indecipherable

code—as it is being transmitted, to keep it secure. Online shopping sites will often use https as a default setting.

hybrid learning: a mix of in-person learning and online instruction. Some disagree on whether this is the same as blended learning. The main difference seems to be that in many hybrid experiences, some learners are participating remotely the whole time, while others participate in-person. Learn more [here](#).

HyperDoc: an interactive document (usually created in a Google Doc) that organizes activities and tasks for students to complete for a lesson or unit. Learn more about these in [How HyperDocs Can Transform Your Teaching](#).

hyperlink: (Also called a *link*.) Most often, a line of text—often underlined—that has been created to be “clickable.” When a reader clicks the text, they are taken to another location. So here, the word [cover](#) is a hyperlink to the front cover of this book. Images can also be hyperlinked.

icon: a small picture representing a website, software, tool, or concept (like a [Wi-Fi](#) icon); see our section of resources for finding images and icons [here](#).

infographic: A visual or graphic representation of information, using small images or icons as well as more traditional graphs and charts to represent data. In recent years, these have been specially designed for consumption on the internet, so some are visually quite long, requiring the reader to scroll through them almost like a mini-website. See our section on [infographics](#) to find tools that help you make these.

iOS: iPhone operating system; the [operating system](#) that powers Apple devices such as the iPad and iPhone

IoT: *Internet of Things*; a network of devices or objects that are embedded with some kind of electronic sensors that allow them to be connected to each other wirelessly. To learn more, see [this article](#).

IP address: *internet protocol address*; a unique identifying number given to every computer in the world

ISP: *Internet Service Provider*, a company that provides internet to homes and businesses

JavaScript: a computer programming language that is built into most [web browsers](#) to make them interactive

JPEG: an image file type that is preferred for photographs. As a [file extension](#), it is abbreviated to JPG. To learn more about image file types, read [this article](#).

Kindle: Amazon's e-reader, which can hold hundreds of full-length books on one device

KB: *kilobyte*; a unit of measurement for electronic data equal to 1,000 bytes; see conversion chart below

1,000 KB = 1 MB

1,000 MB = 1 GB

1,000 GB = 1 TB

link: an abbreviation for *hyperlink*

Linux: an operating system (like Windows or Mac), which is the software that manages all the resources on a device. To learn more, read this post: [What Is Linux?](#)

MB: *megabyte*; a unit of measurement for electronic data equal to 1,000 kilobytes; see conversion chart at left

meme: a piece of media that spreads through the internet. The most common type is an image with a caption. [This article](#) offers some examples.

microblogging: a form of blogging consisting of short, frequent blocks of content, rather than long ones. Twitter, along with other [social media](#) platforms like TikTok, are examples of microblogging platforms.

mobile device: a portable device like a cell phone, smartphone, or tablet

mobile-responsive design: an approach to website design that allows them to change for easier reading when viewed on a mobile device

MOOC: *massive open online course*; a free online course, which can be taken at any time, open to anyone with internet access. [Coursera](#) is one popular platform for finding a MOOC.

MP3/MP4: an MP3 is type of audio file; an iPod is a popular type of MP3 player. An MP4 is a type of video file.

net neutrality: the idea that internet service providers should treat all traffic coming through their services the same, rather than offering faster delivery for websites willing to pay a higher price. Learn more in [this article](#).

NFT: *non-fungible token*; a unique and non-interchangeable unit of data. See our discussion in [Wonderings](#).

NSFW: *not safe for work*; content that may contain nudity or other inappropriate content

one-to-one (1:1): an arrangement in which there is one device or computer per person

open educational resources: instructional resources that are free for anyone to use, modify, and share with others. To learn more, read [A Closer Look at Open Educational Resources](#).

open source: freely available to anyone who wants to see or modify for their own uses; [WordPress](#) is an open source software

operating system (OS): basically, the boss of a computer; the software that supports all of a computer's basic functions. Windows and Mac OS are two popular operating systems.

MICROSOFT CHEAT SHEET

Microsoft offers an incredible collection of tools, most of which are [free for educators](#). This chart shows you how these tools fit together.

Microsoft: The whole company. **Microsoft 365:** A cloud-based subscription service.

Office: Microsoft's suite of productivity tools, listed below.

Office 365: the same set of tools, but through a subscription that provides regular updates of the products; educators can get 365 for free.

Excel: spreadsheets

Forms: a survey creation tool

Learning Tools: a set of tools, like Immersive Reader, that improve accessibility in many Microsoft products

OneDrive: cloud storage

OneNote: note-taking

Class Notebook: a OneNote feature that allows teachers to connect classes of student OneNote notebooks together

Outlook: email and calendar

PowerPoint: slideshow presentations

Publisher: desktop publishing

Skype: video chat app that is now part of Microsoft

Stream: video streaming service; allows an organization to house all videos in one place

Sway: presentation software

Teams: team communication and learning management system

Word: word processing

OTHER MICROSOFT TOOLS & RESOURCES

Windows: Microsoft's operating system

Edge: a web browser, like Google Chrome

Bing: a search engine that runs inside Edge

Surface: a hybrid laptop and tablet

Xbox: a gaming system

Video Editor: video creation and editing built into the Photos tool in Windows 10

Flipgrid: video response tool; now part of Microsoft

Minecraft: video game; now part of Microsoft

Translator: a language translator

PBL: *problem-based learning* or *project-based learning*; an instructional approach that has students learn by solving real-world problems or producing real-world projects in authentic contexts. This approach has grown in popularity as technology becomes more widely available because it gives students more tools for these kinds of tasks.

PC: *personal computer*; generally refers to any computer designed for home use, but most often used to differentiate between Apple's Mac computers and those that run on the Windows platform (PCs)

PDF: *portable document format*; a file format that preserves the exact look of a file without using the original software, so the file size is smaller than the original; sort of like a picture of each page of the document. Most word processing, spreadsheet, and presentation programs have a "Save as PDF" option that allows users to quickly save a copy of the document in PDF form.

petabyte: 1,000 [terabytes](#) (pronounced *pet*, not *peet*)

photoshopped: used to describe a photo manipulated by any kind of photo-editing software (such as [Adobe Photoshop](#)). When looking at a picture that seems too perfect or fake in some way, a person might say it looks *photoshopped*.

pixel: a tiny unit of illumination on a display screen. The more pixels an image has, the more clear and realistic an image looks. When something looks *pixelated*, the individual pixels are visible and the image looks blurry.

platform: the environment in which a piece of software is designed to run; this can be an operating system or even a piece of hardware where the software runs

PLC: *professional learning community*; usually, a local group of teaching colleagues—such as a grade-level team or a subject-area department—who collaborate regularly to analyze student work and data, plan lessons and units, and develop new instructional approaches

PLN: *personal learning network*; a person's individual network of other educators, met in person and online, with whom they collaborate and share ideas. Educators on Twitter often refer to people they are connected to on Twitter as their "Twitter PLN."

plug-in: a small program added to an existing program to improve its functionality. For example, a blog can have a plug-in that allows the blogger to add social network sharing buttons (Facebook, Twitter) to the end of blog posts.

PNG: *portable network graphics*; a type of image file that is preferred for graphics that are not photographs. To learn more about image file types, read [this article](#).

public domain: available to the public and not subject to copyright. Creative works such as art and music that are in the public domain can be used without having to give credit or pay royalties to the creator. These are often marked with the [CCO symbol](#), indicating that they can be used freely by anyone, for any purpose.

QR code: *quick response code*; an image, like a bar code, that links to a specific URL, text message, or other piece of information when the code is read by a device with a scanner; for more information, see the [QR Codes](#) page

RAM: *random access memory*; temporary storage a computer uses for running programs and software; if your computer is running slowly, it may need more RAM. This is different from disk storage, which is used to save files. RAM is only used when you are running programs on your computer.

rich text format (RTF): a file format for word processing documents that allows text formatting such as bold, italics, and underlining. Most common word processing documents support rich text, even if they don't have the .rtf extension.

RSS: *rich site summary* (or *really simple syndication*); a format for publishing regularly changing content. If you subscribe to a website's RSS feed through a feed reader like [Feedly](#), you will be able to view regular, short summaries of new content from that site as soon as it is published.

sans serif: in typography, a font that does not have decorative "tails" on the ends of letters. The font used in this definition is a sans serif font.

screenshot: an image taken of the whole screen of your computer or other device

search engine: software that allows users to search for information on the internet; popular search engines are Google, Bing, and Yahoo

serif: in typography, a font that has decorative "tails" on the ends of letters. **Georgia** is a serif font.

SEO: *search engine optimization*; the process of improving a website to increase the quality and quantity of people visiting it. "If you want your website to be successful, you have to pay attention to SEO."

SIS: *student information system*; a platform that helps schools manage student data, like grades, attendance, and other student records. A popular SIS program is [PowerSchool](#).

smartphone: a cell phone like the iPhone that can do many of the things a computer can do: surf the internet, use email, and use apps that enable it to perform tasks like storing grocery lists or playing games

SMS: *short message service*; the formal term for text messaging

spam: messages sent on the internet or through email to lots of people, usually for the purposes of selling something

story: a sequence of photos or short videos placed on a [social media](#) platform like Instagram or Facebook; these are usually temporary and disappear after 24 hours.

subreddit: a discussion forum dedicated to a specific topic on [Reddit](#)

synchronous learning: a learning experience where participants engage at the same time, such as attending a live lecture via videoconferencing. This is the opposite of an *asynchronous* experience, where participants engage at different times, like watching a video and completing an activity at their own pace.

tablet: a flat, hand-held, mobile computer, usually about the size of a medium-to-large book, that has a touchscreen; some examples are Apple's iPad and Microsoft's Surface

tag: (n) a label attached to a photo, blog post, or other file as a way of categorizing it, making it easier to search for items with common tags; (v) to label an item with a tag

TB: *terabyte*; a unit of measurement for electronic data equal to 1,000 gigabytes; see conversion chart below

1,000 KB = **1 MB**

1,000 MB = **1 GB**

1,000 GB = **1 TB**

TeachMeet: a type of unconference (see definition at right)

tethering: a method for providing internet access to a computer or other device by attaching a mobile phone to it and borrowing the phone's internet capabilities; learn more in the [Troubleshooting](#) section.

thread: a string of messages that make up a conversation on social media, usually between two or more people but sometimes built by one person on their own

touchscreen: a display screen on a computer, tablet, or smartphone that allows users to input information and interact with the device by touching the screen

troll: slang term for a person who comments in online spaces with the primary intent of causing trouble, hurting feelings, starting arguments, or harassing others

20 percent time: similar to [genius hour](#); the practice of giving students 20 percent of the allotted instructional time for pursuing their own interests. To learn more, read [What is 20 Percent Time?](#)

unconference: a grassroots professional development conference organized by educators and comprised of presentations given by the attendees themselves. EdCamp and TeachMeet are two popular unconference movements in education. To learn more, read [Why Every Teacher Should Attend an Unconference](#).

URL: *uniform resource locator*; the full "address" of a website. (Example: The URL for the U.S. Department of Education is <http://www.ed.gov/>.)

USB: *universal serial bus*; a type of plug that lots of computer-related devices use. It's probably what's on the end of your [flash drive](#). A USB port is the place on your computer where you plug in a USB connector (the silver part). Wherever you see the symbol (below) on a plug or port on your computer, that's USB.



USB symbol

UX: *user experience*; UX design, a [rapidly growing career field](#), is the process design teams use to make products easy and enjoyable to use. "I use that website all the time, but it has terrible UX."

VoIP: *Voice over Internet Protocol*; a way of providing phone service via an internet connection

VPN: *virtual private network*; a way to securely connect to a network outside of your local network, which makes all of your activity private. Why would you want to do this? Read more [here](#).

WAV file: a type of audio file

Web 2.0: the “second generation” of the World Wide Web, when the internet shifted from content that came from official organizations and institutions to content generated largely by users. Watch [this video](#) to learn more.

web browser: also known as *internet browser*; a type of software that allows users to use the internet; popular browsers are Chrome, Firefox, Microsoft Edge, Safari, and Opera

webcam: a camera built into or attached to a computer usually used for recording a person talking into it

webinar: a blend of *web* and *seminar*; a live event that happens online, rather than in person

Wi-Fi: a technology that allows computers and other devices to connect to the internet wirelessly; a Wi-Fi hotspot is a physical place that offers wireless internet service



a Wi-Fi icon

wiki: a website that allows multiple editors to edit its content. [Wikipedia](#) is the largest and most popular wiki on the internet.

WYSIWYG: (WIZ-EE-WIG) *what you see is what you get*; a type of web editor in which elements are placed exactly where the builder wants them, as opposed to writing instructions out in code, then checking to see how they look online. [Wix](#) has a WYSIWYG editor, which is why it's recommended for people who have limited web design experience.

Zoom bombing: when an uninvited person enters a videoconference and shares disturbing or distracting content. [This article](#) outlines steps that can be taken to prevent these attacks.

ZIP file: a file that contains a collection of other files that have been compressed—or reduced in size—to make them easier to send; to learn more, read [How to Make a Zip File](#) and [How to Open a Zip File](#)

Index

This index is a fast way for you to get to the **main** listing for each tool and site in the guide, so we haven't listed every page where a tool is mentioned. If you want to see ALL mentions of a term or tool, hit CTRL+F on a PC or Command+F on a Mac and do a whole-document search.



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